2035 Kings County General Plan Update

Final
Environmental Impact Report

Prepared for:

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1 - INTRODUCTION

This Final Program Environmental Impact Report ("Final PEIR") has been prepared in accordance with the California Environmental Quality Act (CEQA), the *State CEQA Guidelines*, and the County's Rules for the Implementation of CEQA. In accordance with Section 15121 (a) of the *State CEQA Guidelines* (California Code of Regulations, Title 14, Division 6, Chapter 3), the purpose of an EIR is to:

> *Inform public agency decision-makers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project.*

This Final PEIR fulfills the requirements for a Program EIR. Although the legally required contents of a Program EIR are the same as those of a Project EIR, Program EIRs are typically more conceptual and may contain a more general discussion of impacts, alternatives, and mitigation measures than a Project EIR. As provided in Section 15168 of the *CEQA Guidelines*, a Program EIR may be prepared on a series of actions that may be characterized as one large project. Use of a Program EIR provides the County (as Lead Agency) with the opportunity to consider broad policy alternatives and program-wide mitigation measures and provides the County with greater flexibility to address environmental issues and/or cumulative impacts on a comprehensive basis. Agencies generally prepare Program EIRs for programs or a series of related actions that are linked geographically, are logical parts of a chain of contemplated events, rules, regulations, or plans that govern the conduct of a continuing program, or are individual activities carried out under the same authority and having generally similar environmental effects that can be mitigated in similar ways. By its nature, a Program EIR considers the "macro" effects associated with implementing a program (such as a General Plan) and does not, and is not intended to, examine the specific environmental effects associated with individual projects that may be implemented pursuant to the General Plan.

Once a Program EIR has been prepared, subsequent activities within the program must be evaluated to determine what, if any, additional CEQA documentation needs to be prepared. If the Program EIR addresses the program's effects as specifically and comprehensively as possible, many subsequent activities could be found to be within the Program EIR scope and additional environmental documents may not be required (*CEQA Guidelines* Section 15168(c)). When a Program EIR is relied on for a subsequent activity, the Lead Agency must incorporate feasible mitigation measures and alternatives developed in the Program EIR into the subsequent activities (*CEQA Guidelines* Section 15168(c)(3)). If a subsequent activity would have effects not within the scope of the Program EIR, the Lead Agency must prepare a new Initial Study leading to a Negative Declaration, Mitigated Negative Declaration, or a project level EIR. In this case, the Program EIR still serves a valuable purpose as the first-tier environmental analysis. The *CEQA Guidelines* (Section 15168(h)) encourage the use of Program EIRs, citing five advantages:

1. *Provision of a more exhaustive consideration of impacts and alternatives than would be practical in an individual EIR*
2. *Focus on cumulative impacts that might be slighted in a case-by-case analysis*
3. *Avoidance of continual reconsideration of recurring policy issues*

4. *Consideration of broad policy alternatives and programmatic mitigation measures at an early stage when the agency has greater flexibility to deal with them*
5. *Reduction of paperwork by encouraging the reuse of data (through tiering)*

It should be noted that as a program level environmental document, the General Plan Final PEIR uses appropriately programmatic thresholds as compared to the project-level thresholds that might be used for an EIR on a specific development project. It should not be assumed that impacts determined not to be significant at a program level would not be significant at a project level. In other words, determination that implementation of the General Plan Update as a "program" would not have a significant environmental effect does not necessarily mean that an individual project would not have significant effects based on project-level CEQA thresholds, even if the project is consistent with the General Plan. Conversely, it may be possible for certain impacts identified as significant at the program level to be less than significant for certain individual projects, depending on the nature of the project.

The following summarizes the CEQA process, to date, as it relates to the project:

- **NOP /Initial Study:** In accordance with section 15082 of the CEQA Guidelines, the County prepared a Notice of Preparation (NOP) for a PEIR and Initial Study on December 3, 2008, for a 30-day public review and comment period. The NOP/Initial Study was distributed to anyone who previously requested written notice of the Project and to all responsible and trustee agencies. Copies of the NOP/Initial Study are included in Appendix A of the Draft PEIR. The Project described in the NOP/Initial Study at that time consisted of the "…County's latest comprehensive effort to bring the County general plan up to date and current with local and regional conditions, and State legislative changes. The general plan update includes updates to the Land Use, Resource Conservation, Open Space, Circulation, Safety, and Noise Elements. As part of the general plan update, the County also developed four community plans to address growth and restraint issues in the County's four unincorporated communities which serve as the most likely areas to accommodate County unincorporated urban growth. The four community plans cover the unincorporated communities of Armona, Home Garden, Kettleman City, and Stratford, which are served by either a Community Services District or Public Utilities District. A new Air Quality Element has also been developed to address local green house gas emission reduction efforts, and ties County local land use planning with regional planning efforts to better address urban growth and emissions within the San Joaquin Valley. The 2003 Housing Element and 2002 Dairy Element with its own EIR are not part of the general plan update, and therefore not considered part of this project. Both of these elements will continue in force on their own merit. A 2009 Housing Element is under development, but on its own separate adoption timeline in 2009 and being done jointly with the County's four Cities of Avenal, Corcoran, Hanford, and Lemoore."

- **Public Scoping Meetings for NOP:** On December 15, 2008, the County held a public scoping meeting for the 2035 Kings County General Plan Draft PEIR to provide an opportunity for the public and agencies to submit verbal comments on issues to be addressed in the Draft PEIR. Notifications of the December 15, 2008, meetings

included publication in the local newspaper and direct mailing of an announcement by the County to responsible and trustee agencies, regulatory and resource agencies, County and City agencies, and those on the CEQA notification list maintained by the County. Letters received in response to the December 15, 2008, NOP are included in Appendix A of the Draft PEIR.

- **Preparation of the Draft** P**EIR:** The Draft PEIR includes an analysis of the following environmental resource areas:

  - Aesthetics
  - Agricultural Resources
  - Air Quality
  - Biological Resources
  - Cultural Resources
  - Geology and Soils
  - Hazards and Hazardous Materials
  - Hydrology and Water Quality
  - Land Use / Planning
  - Noise
  - Population / Housing
  - Public Services
  - Recreation
  - Transportation / Traffic
  - Utilities / Service Systems

  The County published the Draft PEIR for public and agency review on July 6, 2009. The availability of the Draft PEIR was noticed by Kings County as required by law. A Notice of Completion was filed with the California Office of Planning and Research on July 6, 2009. A public review period on the Draft PEIR ended on August 19, 2009 and was subsequently extended to August 26, 2009. This timeframe satisfied the requirement for a 45-day public review period as set forth in Section 15105 of the CEQA Guidelines. Consistent with Section 15202 of the CEQA Guidelines, the Kings County Community Development Agency conducted a public meeting on August 20, 2009, at which time agencies and the public were given the opportunity to provide oral comments on the Draft PEIR The Draft PEIR is included in the Final PEIR as Appendix B .

- **Preparation of the Final** P**EIR –** In accordance with CEQA Guidelines Section 15132, the Final PEIR consists of the Draft PEIR; copies of the comments received; a list of the persons, organizations and public agencies who commented; responses of the Kings County Community Development Agency, as the Lead Agency, to the significant environmental points raised in the review and consultation process; Findings of Fact and Statement of Overriding Considerations; and other information added by the Kings County Community Development Agency, as the Lead Agency. The Final PEIR encompasses all of the above information. It also includes any corrections or additions as setforth in the Draft PEIR. A Mitigation Monitoring Plan has been prepared for the proposed Project in accordance with Public Resources Code Section 21081.6 and is included as Appendix A of the Final PEIR.

- **Certification of Final PEIR and Notice of Determination –** The Kings County Planning Commission will hold a public hearing to consider recommending certification of the Final PEIR and adoption of the *2035 Kings County General Plan* by the Board of Supervisors. Notice will be provided consistent with the CEQA Guidelines section 15087.

The July 2009 Draft PEIR and this Final PEIR together comprise the PEIR in its entirety in accordance with the CEQA. This PEIR will be used by the Kings County Planning Commission and various trustee and responsible agencies during consideration of the proposed Project. The primary purpose of this PEIR is to:

- Identify and evaluate the potentially significant adverse environmental effects of the proposed Project.
- Indicate the manner in which significant adverse environmental effects caused by the proposed Project can be mitigated or avoided through the adoption of feasible mitigation measures.
- Identify and analyze a feasible range of alternatives that may substantially reduce or avoid potentially significant environmental impacts associated with the proposed Project.
- Identify significant environmental impacts, if any, that would be unavoidable, even with implementation of all feasible mitigation measures.
- Provide documentation supporting these determinations.

Project Summary
In 2005 the County received notification from the State Attorney General that the Kings County General Plan was in need of a comprehensive update. The notification was received too late in the 2005-06 budget development cycle to include a comprehensive update program. As a result staff began to develop a budget proposal for the 2006-07 budget for the first year of a two year budget proposal. The Board of Supervisors subsequently authorized a comprehensive general plan update program of the Kings County General Plan on July 1, 2006 with an initial estimated completion date of June 30, 2008.

The *2035 Kings County General Pla*n is a comprehensive effort to update the existing General Plan to respond to current local and regional conditions, as well as changes in state law that may not have been in place when the General Plan was last updated.

As part of the General Plan update process, the County also developed four community plans to address growth and restraint issues in the County's four unincorporated communities which serve as the most likely areas for County unincorporated urban growth accommodation.

State law (Government Code Section 65300) requires that each city and county adopt a comprehensive general plan. The proposed project fulfills this requirement by updating the County's existing General Plan. The General Plan defines the framework by which the County's physical and economic resources are to be managed and used in the future. The General Plan's planning horizon is the year 2035. The objectives of the General Plan Update include:

- Promote and concentrate residential, commercial and industrial growth within the Community Plan areas of Armona, Home Garden, Kettleman City and Stratford;
- Establish mixed uses in the Community Plan areas to create definable downtown cores that promote pedestrian usage and economic vibrancy;
- Provide traffic circulation routes and public transportation that meet the needs of County residents through the year 2035 and reduce overall vehicle miles traveled;
- Protect County residents from exposure to excessive noise levels;
- Reduce or eliminate long term risk to people and property from natural or man made hazards;
- Protect water, natural lands, agriculture, prime soils, native plant and animal habitat, threatened and endangered species, fishing, energy, mineral, and archeological, cultural and historical resources throughout the County;
- Establish open spaces throughout the County that promote the preservation of agriculture and scenic resources and provide outdoor recreation; and
- Improve air quality throughout the County and reduce impacts associated with greenhouse gases and climate change.

The General Plan Update changes, clarifies, and articulates the County's intentions with respect to the rights and expectations of the various communities, including residents, property owners, and businesses. Through the General Plan, the County informs these groups of its goals, policies, and standards, thereby communicating expectations of the public and private sectors for meeting community objectives.

Since the General Plan and Community Plans are the constitution for all future development, any decision by a county affecting land use and development must be consistent with the respective plan. This includes any development projects proposed in the future. An action, program, or project would be considered consistent with the General Plan if, considering all of its aspects, it will further the objectives and policies of the General Plan or not obstruct their attainment.

Preliminary efforts to update the County's General Plan included coordinating with community leaders, department staff, university groups, and consultants to prepare a program outline that identified key processes and components necessary to accomplish the comprehensive update. The resulting program outline included three major program groups consisting of Community Plans, General Plan Elements, and Review Components.

Component 1 - Community Plans were developed to more closely identify and address each unincorporated community's opportunities and challenges. To gain a comprehensive understanding of the individual needs of each community, numerous publicized public outreach meetings were held. California Polytechnic State University, San Luis Obispo co-facilitated the Armona and Kettleman City public outreach meetings, while Community Development Agency Staff conducted Home Garden and Stratford community meetings. All community meetings were held in each community from November 2006 through August 2007. Input from residents and other interested parties contributed towards the community concepts that were presented during the final meeting in each community.

Community Meetings

Community	# of Meetings	Average Attendance	Kickoff Meeting	Concluding Meeting
Armona	6	25	November 2, 2006	March 14, 2007
Home Garden	4	20	June 5, 2007	August 14, 2007
Kettleman City	10	25	September 28, 2006	March 13, 2007
Stratford	4	75	June 4, 2007	August 13, 2007

Community Development staff transformed the vision and desires of each community into the individual community plans. All four plans were structured into eight main chapters that address the following topics: Introduction, Community Land Use, Community Open Space and Land Use, Community Identity, and Economy, and Community Services

Component 2 - The General Plan Update includes revisions to the following elements:

- *Land Use Element*
- *Resource Conservation Element*
- *Open Space Element*
- *Circulation Element*
- *Health and Safety Element*
- *Noise Element*

The General Plan Update includes provision of the following new element:

- *Air Quality Element*

Component 3 - Review Components group consists of processes to remain compliant with State Law requirements. Public participation is a necessary element to a comprehensive general plan update, and public involvement meetings are distributed throughout both Community Plan and General Plan Element efforts. A Kings County General Plan Advisory Committee (KCGPAC) was also established to serve as an advisory body to the Community Development Agency during plan development. Members of the Committee represented a

wide variety of government and special interest groups including members or representatives from the County Board of Supervisors, County Planning Commission, cities, communities, water/irrigation districts, agricultural industries, commercial industrial representatives, and members of the public at large. KCGPAC meetings were open to the public and were held at least once a month during the duration of the update process. Community Development Agency staff also held meetings with several of the special interest groups to gain feedback on the proposed community plan policies.

The County's overarching priorities are to protect prime agricultural land, direct urban growth to existing cities and community districts, and increase economic and community sustainability. General Plan land use designations and policies are designed to encourage compact and community centered development patterns that lower public service costs, make more efficient use of land, and discourage premature conversion of farmland to other uses. Policies embodied in this General Plan are designed to balance the protection of individual property owners' rights and property value with the efficient provision of public services to the community at large and long term preservation of natural resources. The *2035 Kings County General Plan* defines goals, objectives and policies that will guide the physical growth, use and development of land under the jurisdictional authority of the County through the year 2035.

General plans are created to establish a consistent framework for land use and development decisions intended to be used as a tool to implement an established community vision. A general plan is essentially a local "constitution" designed to guide both urban and rural development activities in a consistent direction desired by the community at large. State law (Government Code Section 65302) requires general plans to include a minimum of seven mandated elements including a Land Use, Resource Conservation, Open Space, Circulation, Housing, Health and Safety, and Noise Element. The *2035 Kings County General Plan* includes all seven mandated elements in addition to a previously adopted Dairy Element, and newly prepared Air Quality Element. Each element includes a purpose and scope, context of the planning issues, and goals, objectives, and policies for each element. An overview of the General Plans chapters includes:

I. **Introduction** presents a general plan overview including the scope, authority, and overview of the general plan and also presents a historical regional description of Kings County.

II. ***Land Use Element*** designates the general distribution, location, and intensity of land uses throughout the unincorporated territory of the County, and establishes policies to guide and direct future land use decisions and development.

III. ***Resource Conservation Element*** identifies natural resources throughout the County and establishes policies for the conservation of various resources including agriculture, water, soils, plant and wildlife habitat, minerals, archaeological, and solid waste.

IV. ***Open Space Element*** identifies the County's "open space land" and establishes guiding policies for the preservation and conservation of land

within the County that is essentially unimproved and devoted to open space use.

V. ***Circulation Element*** is to determine a baseline of existing transportation and circulation conditions in Kings County, established projected future circulation needs through 2035, and provide policy direction and implementation efforts to ensure the continued efficient movement of people and goods while simultaneously striving towards reduced vehicle emissions and associated greenhouse gases.

VI. ***Housing Element*** evaluates housing production needed to accommodate projected population growth throughout the County, including all the cities. Its policies encourage the development of housing for all economic segments of the community, and the production of diverse types and densities of housing to service all housing needs.

VII. ***Health and Safety Element*** establishes policies to reduce or eliminate long term risk to people and property from natural or man made hazards. The element was expanded to include community health and safety related issues that are more commonly associated with the built environment as affecting the health and safety or residents living within the County.

VIII. ***Noise Element*** identifies the existing and projected future noise environment in the County, and provides policy direction and implementation efforts to protect County residents from exposure to excessive noise levels.

IX. ***Air Quality Element*** provides summary level background information on the regulatory setting, existing air quality, health effects, and greenhouse gas/global climate change issues. The element also provides a comprehensive set of policies and implementation programs intended to meet the requirements of Assembly Bill 170 for Air Quality Elements and other state laws pertaining to greenhouse gases.

X. ***Dairy Element*** contains a series of policies designed to accomplish two equally important major objectives. The first is to ensure that the dairy industry of Kings County continues to grow and contribute to the economic health of the County. The second is to ensure that the standards established in the Dairy Element protect public health and safety and the environment.

XI.- XIV. Community Plans provide a focused community vision supported by a detailed framework of goals and objectives providing more precise policies than are found in the more generalized policies of the general plan elements.

The General Plan is a tool to assist County supervisors, planning commissioners, and Community Development Agency staff in making land use and public infrastructure decisions as well as providing a framework for the Kings County Zoning Ordinance. Each element within the General Plan commands equal status with no element being legally subordinate to another. The General Plan resolves potential conflicts among the elements

and community plans through clear language and policy consistency throughout the plan whether in tables and figures or text format. Individual element policies with supporting discussions are also consistent and compliment one another.

Notable changes from the *1993 Kings County General Plan* to the proposed *2035 Kings County General Plan* are summarized in the following:

Land Use Element - The *Land Use Element* has been reorganized to group land use policies into five distinctive categories that are reflective of the County's unincorporated environment. Modeled after the Rural-to-Urban transect approach to smart growth, the County's land use policies are grouped for ease of reference into "Natural Lands", "Agriculture and Open Space", "Rural Interface", "Community Districts", and "Urban Fringe". An additional section has been added to address procedural requirements and review criteria for any new community or new city proposals. Previously existing Land Use policies have been organized into the five environment categories. County land use policies will continue to direct urban growth to the four incorporated cities in "Urban Fringe" areas, restrict growth to pre-existing urban land use pockets of "Rural Interface" areas, provide policies for new communities through specific plan/new community procedures, and guide sustainable community growth in "Community Districts" through a detailed individual Community Plan for each area. Minor land use changes are proposed to resolve the General Plan consistency with the County's Zoning Ordinance. Community Plan areas represent substantial land use changes, and are the only areas with expanded urban growth in the County unincorporated areas to accommodate future urban growth. Land use and planned urban growth are addressed in greater detail in each of the four community plans.

Resource Conservation Element - The *Resource Conservation Element* has been updated with more informative discussion and policy guidance on valued resources within the County. Policy sections include Water, Natural Lands, Agriculture, Prime Soils, Native Plant and Animal Habitat, Threatened and Endangered Species, Fishing, Energy, Mineral, and Archaeological/Cultural/Historical resources. A new Biological Resources Survey is included that substantially updates the County's previous 1993 Biological Resources Survey, and provides up to date regulatory requirements and species habitat information. An Agricultural Land Conversion Study was also prepared to analyze the County's loss of prime agricultural land and explore options for mitigating the loss of agricultural land resources. Policy changes in this element primarily consist of guiding policies to address existing and projected conditions for each of the resources identified above. Policies addressing agricultural mitigation represent the most significant change which seeks to enhance preservation of the County's valued agricultural resources.

Open Space Element - The *Open Space Element* has been updated to bring additional information and guiding policies for the preservation of agriculture, scenic resources, outdoor recreation, and open space buffers around communities and the Naval Air Station Lemoore.

Circulation Element - The *Circulation Element* has been updated with existing and projected traffic counts and levels of service. Additional information has been added to provide more detailed information on transportation options and connectivity throughout the County. Substantial changes in policy direction involve stronger emphasis on integrating traffic

calming measures and pedestrian and bicycle infrastructure in Community District areas that could greatly benefit from alternative transportation modes. Traffic calming measures and pedestrian street designs are addressed in more detail within each of the community plans. The growing importance of the County's vanpool options are also highlighted as a program that is making substantial reductions to vehicle miles traveled and air emissions.

Health and Safety Element - The previous *Safety Element* has now been integrated with public health issues that are associated with the built environment. This element now referred to as the "*Health and Safety Element*" includes updated information on natural and man made hazards, while also integrating public health and protection of County residents. Planning efforts on this element were joined with the County's Emergency Operations Command to develop a "*Kings County Natural Hazards Mitigation Plan*" and integrate the plan's recommendations into this element. Coordination with the County's Public Health Department and other regional and statewide efforts to address resident health such as obesity and diabetes through modifications in the built environment, and personal property safety through protection efforts. Many of these issues are addressed in greater detail in each community plan. New updated Naval Air Station Lemoore operational information has also been recently released and taken into consideration in this element along with the Land Use and Noise Elements.

Noise Element - The *Noise Element* has been updated with current noise surveys and update policies to address changes in mobile and stationary noise sources within the County. The only significant change in excessive noise relates to new noise contours developed by the Naval Air Station Lemoore. In response, new policies will restrict new residential development in excessive aircraft noise corridors and require mitigation for new structures built in moderately excessive aircraft noise areas.

Air Quality Element - The County's first ever *Air Quality Element* attempts to establish a baseline of green house gas emissions within the County, and define a coordinated link between the County's planning efforts, regional Blueprint planning efforts, and the broader statewide green house gas reduction efforts. This element is envisioned to connect land use, circulation and regional Blueprint transportation and urban growth direction planning to infuse sustainable community strategies, reduce urban sprawl, and reduce overall green house gas emissions. *Air Quality Element* policies reinforce the County's land use, circulation, and resource conservation policies which aim to preserve agricultural land, direct urban growth to Cities and Community Districts, and establish transportation alternatives that reduce vehicle miles traveled.

Community Plans - The four unincorporated communities of Armona, Home Garden, Kettleman City, and Stratford make up the County's only urbanized community areas that are served by special districts. These four community areas represent planning areas under the *Armona Community Plan*, *Home Garden Community Plan*, *Kettleman City Community Plan*, and *Stratford Community Plan*. These community plan areas will accommodate the County's unincorporated urban growth, as growth within "City Fringe" areas continues to be directed to the respective City, and "Rural Interface" areas remain restricted with no new urban growth designations since these areas are not served by Community Services or Public Utilities District that provide potable water, wastewater, and other community level services.

The primary focus of each community plan is to integrate smart growth principles into community revitalization efforts that aim to create or strengthen a centralized community core. New "Mixed Use" land use designations are integrated along with prioritization of centralized services and pedestrian connectivity in each community core. Compact residential growth and infill development are also strong themes within each plan with detailed evaluation of needed services and infrastructure improvements. Sustainable community strategies are also built in to improve community identity, increase job growth, and leverage the newly adopted Enterprise Zone that now includes all four communities. Future areas of community growth expansion are defined in each plan to ensure that compact, centralized growth occurs in a phased and balanced manner and prevents the untimely conversion of prime agricultural lands.

Geographical Extent of the General Plan Area

The County of Kings is located in the San Joaquin Valley portion of the Great Central Valley of California that lies south of the Sacramento-San Joaquin Delta, and is comprised of 1,391 square miles. Figure 2-1 shows Kings County's relationship to the State Route system, nearby counties, cities, and communities.

Kings County is one of eight counties that comprise the San Joaquin Valley, and is bounded on the west by the Coast Ranges; the Sierra Nevada Mountain range to the east; the Tehachapi's to the south; and the Sacramento Valley to the north. The San Joaquin Valley supports extensive farmland practices. Kings County's farm land area is level irrigated farmland that averages well over $1 billion a year in commercial crop production.

Within the San Joaquin Valley, Kings County is bordered by Fresno County to the north and west; Kern County to the south; Tulare County to the east; and Monterey County and San Luis Obispo County to the southwest. Elevations range from 175 feet in the Tulare Lake Basin to 3,473 feet at the extreme southwestern portion of the county in the Coast Ranges.

There are four incorporated cities within Kings County, which contain approximately seventy-seven percent of the 2008 total county population estimate of 154,434 (California Department of Finance, 2009). The four cities are Avenal, Corcoran, Hanford, and Lemoore. Several unincorporated communities are also located within the County, as well as Naval Air Station Lemoore, and Santa Rosa Rancheria. A majority of the population within unincorporated Kings County is located in the four unincorporated communities of Armona, Home Garden, Kettleman City, and Stratford, which is why these areas are subject to community plans under the General Plan Update.

2 - ERRATA

This section summarizes clarifications and modifications to information contained in the Revised Draft EIR, based on the comments and responses presented in Section 8.3 below. Each clarification and modification summarized below is also contained within the respective response in Section 8.3 below.

Where a comment results in a change to the EIR text, a notation is made in the response indicating that the text is revised. Changes in text are signified by strikeouts (~~strikeouts~~) where text is removed and by underlined (font) where text is added. These revisions clarify or amplify the EIR and would not result in new significant environmental effects. Pursuant to State CEQA Guidelines Section 15088.5(b), recirculation of the EIR is not required.

❖ **Revision to the Executive Summary**

Impact AQ-5 on page ES-7 has been modified as follows. This modification is to correct a typographical error within this impact statement.

Impact AQ-5 Development facilitated by the 2035 General Plan would result in an increase in GHGs within the San Joaquin Valley Air Basin. Buildout of the 2035 General Plan would accommodate up to 16,863 new residents, and increase vehicle miles traveled by up to 1,203,461. ~~New development associated with the General Plan would hinder the implementation of~~ General Plan Policy AQ G1.1.1 would ensure consistency with SB-375 and AB-32. Impacts would be Class III, *less than significant* ~~*but mitigable*~~.

Impact BIO-3 on page ES-8 has been modified as follows. This modification is to correct a typographical error within this impact statement.

Impact BIO-3 Development facilitated by the draft 2035 General Plan would largely avoid impacts to sensitive habitats by emphasizing intensification/reuse of already urbanized areas. However, development throughout the County outside of urbanized areas may result in impacts to sensitive habitats, as may cumulative population growth. These impacts under the 2035 General Plan would be Class ~~I~~ II, *significant but mitigable*.

Impact N-4 is listed in the body of the EIR but not in the Executive Summary. Add Impact N-4 and related mitigation measures and significance after mitigation to the Executive Summary.

Impact N-4 Development facilitated by the 2035 General Plan could result in exposure of existing and future residences and other noise sensitive land uses to airstrip- and other air-traffic-related noise levels exceeding the "acceptable" range. However, implementation of siting requirements, noise attenuation features on new

development, and other policies in the draft General Plan would reduce impacts to a Class III, *less than significant*, level.

Mitigation Measures: The proposed General Plan policies would address potentially significant noise activity associated with airstrips under the 2035 General Plan. No mitigation measures beyond implementation of the policies included in the draft General Plan Noise Element would be required.

Significance After Mitigation. Impacts would be less than significant without mitigation.

- **Revisions to Section 2.0, Project Description**

The title of Figure 2-6 in Section 2.0 Project Description has been modified as follows:

"Proposed F-18 Noise Contours for ~~Lemoore Naval Air Station~~ Naval Air Station Lemoore"

- **Revisions to Section 4.3, Air Quality**

The following language has been modified in paragraph two of Section 4.3.2(a), *Methodology and Significance Thresholds*:

The SJVAPCD has adopted numeric significance thresholds for individual development projects. However, use of these thresholds would not be appropriate for a General Plan since they are intended for use in evaluating the effects of individual projects while the General Plan EIR considers the cumulative effect of all individual projects within the ~~City~~ County. Therefore, the criteria used to determine the significance of impacts are taken from the checklist contained in Appendix G of the State CEQA Guidelines. According to the CEQA Guidelines, General Plan implementation would result in a significant impact to air quality if it would:

Impact AQ-5 on page 4.3-19 has been modified as follows. This modification is to correct a typographical error within this impact statement.

Impact AQ-5 Development facilitated by the 2035 General Plan would result in an increase in GHGs within the San Joaquin Valley Air Basin. Buildout of the 2035 General Plan would accommodate up to 16,863 new residents, and increase vehicle miles traveled by up to 1,203,461. ~~New development associated with the General Plan would hinder the implementation of~~ General Plan Policy AQ G1.1.1 would ensure consistency with SB-375 and AB-32. Impacts would be Class II**I**, *less than significant ~~but mitigable~~*.

- **Revisions to Section 4.4, Biological Resources**

Impact BIO-3 on page 4.4-26 has been modified as follows. This modification is to correct a typographical error within this impact statement.

Impact BIO-3 Development facilitated by the draft 2035 General Plan would largely avoid impacts to sensitive habitats by emphasizing intensification/reuse of already urbanized areas. However, development throughout the County outside of urbanized areas may result in impacts to sensitive habitats, as may cumulative population growth. These impacts under the 2035 General Plan would be Class ~~I~~ II, *significant but mitigable*.

The following mitigation measure has been modified:

BIO-4(a) **Policy Revisions.** The following policies shall be revised to protect special status plant and animal species:

ACP Policy 8E.1.3: New development located on undisturbed land within the fringe area of the Armona Community Planning Area shall be required to provide a pre-construction biological survey to determine the presence of any rare or endangered species within the project area if the land falls within or is adjacent to quad maps with known special status species or sensitive habitats as determined by a review of the county's Sensitive Resources Maps and Sensitive Resources Lists. Land continuously cultivated since 1985, or before, will not be considered wetlands or sensitive species habitat. If Federal or State listed rare or endangered species are identified and observed, the local lead agency and any other responsible state or federal agency shall be notified immediately.

SCP Policy 8E.1.2: New development located on undisturbed land within the fringe area of the ~~Armona~~ Stratford Community Planning Area shall be required to provide a pre-construction biological survey to determine the presence of any rare or endangered species within the project area if the land falls within or is adjacent to quad maps with known special status species or sensitive habitats as determined by a review of the county's Sensitive Resources Maps and Sensitive Resources Lists. Land continuously cultivated since 1985, or before, will not be considered wetlands or sensitive species habitat. If Federal or State listed rare or endangered species are identified and observed, the local lead agency and any other responsible state or federal agency shall be notified immediately.

❖ Revisions to Section 4.7, Hazards and Hazardous Materials

Figure 4.7-4 has been added to Section 4.7 *Hazards and Hazardous Materials,* which shows the NAS Lemoore's Military Influence Area.

❖ Revisions to Section 4.10, Noise

The sixth paragraph on page 4.10-4 in Section 4.10 *Noise* has been modified as follows:

~~The NAS Lemoore is one of four Navy master jet bases in the United States, and is the home port for all active-duty, light-attack aircraft squadrons assigned to the Pacific Fleet~~. NAS Lemoore is the Navy's largest Master Jet Base and the only one located on the west coast. The station is located in the western sections of Kings and Fresno Counties. NAS Lemoore occupies 18,784 acres and controls an additional 10,020 acres in air space. From 2002-2006, aircraft operations at NAS Lemoore totaled an average of 210,000 operations per year. Its principal mission is to support the Strike-Fighter Wing of the U.S. Pacific Fleet. NAS Lemoore hosts fourteen operation Strike-Fighter squadrons, two Strike-Fighter Fleet Replacement squadrons and all four coast Carrier Air Wing Commanders and their staff.

❖ **Revisions to Section 4.14, Transportation and Circulation**

The following mitigation measure has been removed:

TC-1(b) Impact Fees. Kings County shall implement a regional traffic mitigation fee program to mitigate impacts to the County's regional road network. Additionally, the County shall coordinate with incorporated cities to implement local traffic improvement fee programs to offset the capital improvement costs required to accommodate new development.

❖ **Revisions to Section 6.0, Alternatives**

The fourth paragraph on page 6-6 has been modified as follows:

The overall increase in air pollutant emissions associated with this alternative would be 30 percent lower than what could occur under the draft 2035 General Plan due to the reduction in overall development potential. Air quality impacts of the proposed General Plan are less than significant or significant but mitigable without the 30 percent reduction in buildout densities. Similar to the 2035 General Plan, impacts would be further reduced with implementation of proposed General Plan policies. However, as discussed in Section 4.3, *Air Quality*, thresholds are not currently established for greenhouse gas emissions. As such, although this alternative would reduce emissions by 30 percent, it would still contribute 250,304.8 metric tons of CO_2e per year. Therefore, impacts related to greenhouse gas emissions would remain significant but mitigable. This alternative would be subject to mitigation measure AQ-4 ~~5~~ as identified in section 4.3 *Air Quality* for impacts related to nuisance odors ~~greenhouse gases~~. Other air quality impacts would not require mitigation, as they were found to be less than significant.

The second paragraph on page 6-11 has been modified as follows:

A reduction in the amount of residential development within the community plan areas under Alternative 4 would reduce the amount of mixed use and infill development within the four community plan areas. The mixed use designation

allows for a mixture of land uses to be incorporated on a single parcel or in business districts. As discussed in Section 4.14, *Transportation and Circulation,* mixed use development and infill development encourage alternative transportation because residences, employment centers, and services are closer together. Therefore, because there would be less mixed use and infill development with the community plan areas and more development spread out within the non-urban areas of the County, vehicle miles ~~travelled~~ traveled would be greater and air quality impacts would be greater than under the proposed project. Due to the increase in vehicle miles traveled, and associated increases in congestion, the mitigation measures required in Section 4.3 may not be sufficient to mitigate impacts under this alternative. ~~Similarly, greenhouse gas emission impacts would be higher.~~ Therefore, impacts would be considered significant.

Table 6-4 on page 6-17 has been modified as follows: the impact classification in the Air Quality row in the 2035 General Plan column and Alternative 2 column has been revised to Class II from Class I. These modifications are to correct typographical errors within Table 6-4 so as to accurate reflect the impact classifications of Air Quality impacts discussed elsewhere in the EIR. In addition for the same reason, the impact to Biological Resources has been changed to Class I to represent the Significant and Unavoidable impacts identified in the impact discussion.

Table 6-4. Project and Alternative Comparison Table

Environmental Issue Area	2035 General Plan	Alternative 1 - No Project (No Further Development)	Alternative 2 - No Project (1993 General Plan Buildout)	Alternative 3 - Reduced Project Alternative	Alternative 4 - Dispersed Non-District Growth
Aesthetic	Class III	Class IV / -	Class III / -	Class III / -	Class II / +
Agricultural Resources	Class III	Class IV / -	Class III / -	Class III / =	Class I / +
Air Quality	Class ~~I~~ II	Class IV / -	Class II / -	Class II / -	Class I / +
Biological Resources	Class ~~III~~ I	Class IV / -	Class II / -	Class III / =	Class II / +
Cultural Resources	Class III	Class IV / -	Class II / -	Class III / =	Class II / +
Geology	Class III	Class IV / -	Class II / -	Class III / =	Class II / =
Hazards and Hazardous	Class III	Class IV / -	Class III / -	Class III / =	Class III / - +

Table 6-4. Project and Alternative Comparison Table

Materials					
Hydrology and Water Quality	Class III	Class IV / -	Class II / -	Class III / -	Class II / - +
Land Use	Class III	Class IV / -	Class II / -	Class III / =	Class I / +
Noise	Class III	Class IV / -	Class II / -	Class III / -	Class II / - +
Population and Housing	Class III	Class II / -	Class II / -	Class III / -	Class I / +
Public Services	Class III	Class IV / -	Class III / -	Class III / -	Class III / =
Recreation	Class III	Class I / -	Class II / -	Class III / -	Class I / +
Transportation and Circulation	Class II	Class II / -	Class II / -	Class IV / -	Class I / +
Utilities and Service Systems	Class III	Class IV / -	Class III / -	Class III / -	Class II / +

Class I = significant and unavoidable impact
Class II = significant but mitigable impact
Class III = less than significant impact
Class IV = no impact

** Impact classifications are shown for the greatest impact within the issue area (i.e., if Class II and III impacts were identified within the issue area, the table indicates the overall impact within that issue area as Class II).*

- impact would be lower than that of the 2035 General Plan
+ impact would be greater than that of the 2035 General Plan
-+ impacts would be both lower and greater than that of the 2035 General Plan
= impact would be the same as that of the 2035 General Plan

3 - WRITTEN COMMENTS and RESPONSES on the DRAFT PEIR

In accordance with § 15088 of the California Environmental Quality Act (CEQA) Guidelines, the County of Kings, as the lead agency, has reviewed the comments received on the Draft Program Environmental Impact Report (Draft PEIR) for the 2035 General Plan and has prepared written responses to the written comments received. The DRAFT PEIR was released for a 45-day public comment period on July 7, 2009. The comment period ended August 20, 2009. No verbal comments were received during the comment period.

The DRAFT PEIR and this Response to Comments, including revisions to the Draft EIR, collectively comprise the Final Program Environmental Impact Report (Final PEIR) for the project. Any changes made to the text of the DRAFT PEIR correcting information, data or intent, other than minor typographical corrections or minor working changes, are noted in this section as changes to the FINAL PEIR.

The focus of the responses to comments is the disposition of environmental issues that are raised in the comments, as specified by § 15088 (c) of the *CEQA Guidelines*. Detailed responses are not provided to comments on the merits of the proposed 2035 General Plan. In addition, Section 15151 of the State CEQA Guidelines notes that "An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure."

The State CEQA Guidelines also set forth standards for the focus of review of a Draft EIR, as follows: "In reviewing draft EIRs, persons and public agencies should focus on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated. Comments are most helpful when they suggest additional specific alternatives or mitigation measures that would provide better ways to avoid or mitigate the significant environmental effects. At the same time, reviewers should be aware that the adequacy of an EIR is determined in terms of what is reasonably feasible, in light of factors such as the magnitude of the project at issue, the severity of its likely environmental impacts, and the geographic scope of the project. CEQA does not require a lead agency to conduct every test or perform all research, study, and experimentation recommended or demanded by commenter's. When responding to comments, lead agencies need only respond to significant environmental issues and do not need to provide all information requested by reviewers, as long as a good faith effort at full disclosure is made in the EIR." [Section 15204(a)]

As described in Section 2, above, where a comment results in a change to the EIR text, a notation is made in the response indicating that the text is revised. Changes in text are signified by strikeouts (~~strikeouts~~) where text is removed and by underlined (font) where text is added.

Each written comment regarding the DRAFT PEIR that the County of Kings received is included in this section (refer to Table 1). Responses to these comments have been prepared to

address the environmental concerns raised by the commenter's and to indicate where and how the DRAFT PEIR addresses pertinent environmental issues. The comment letters included herein were submitted by public agencies and one private company. The comment letters have been numbered sequentially, and each issue within a comment letter, if more than one, has a number assigned to it. Each comment letter is reproduced in its entirety with the issues of concern numbered in the margin. References to the responses to comments identify the specific comment (6.2, for example, would reference the second issue of concern within the sixth sequential comment letter).

Table 1 Written Comment Letters on the Draft EIR

Letter #	Commenter	Organization	Date
1	Scott Mansholt	Chevron Environmental Management Co.	July 16, 2009
2	Dave Singleton	Native American Heritage Commission	August 13, 2009
3	Larry Dotson	Kaweah Delta Water Conservation District	August 18, 2009
4	Rachel Audino	Kings County Association of Governments	August 17, 2009
5	James Knapp	Department of the Navy	August 20, 2009
6	David Warner	San Joaquin Valley Air Pollution Control District	August 25, 2009
7	David Warner	San Joaquin Valley Air Pollution Control District	August 26, 2009

Letter 1

M. Scott Mansholt
Sr. Environmental Project Management Specialist
Chevron Environmental Management Company

M. Scott Mansholt
Sr. Environmental
Project Management
Specialist

Chevron Environmental Management Company
6111 Bollinger Canyon Road
BR1Y/3432
San Ramon, CA 94583
Tel (925) 543-2353
Fax (925) 543-2323
(925) 543-2323
scott.mansholt@chevron.com

July 16, 2009

Stakeholder Correspondence–Kings County Community Development Agency
Draft 2035 Kings County General Plan and
Program Environmental Impact Report

Mr. Jeremy Kinney
Senior Planner
Kings County Community Development Agency
1400 W. Lacey Blvd., Bldg. 6
Hanford, CA 93230

Subject: **Kings County Draft 2035 General Plan – Comment for Program Environmental Impact Report: SCH No. 2008121020**
Chevron Environmental Management Company
Historic Pipeline Alignment-Bakersfield to Richmond

Dear Mr. Kinney:

Chevron Environmental Management Company (CEMC) recently became aware of the Draft Program Environmental Impact Report (State Clearinghouse No. 2008121020) prepared in support of the comprehensive update of the Kings County General Plan. The purpose of this letter is to notify project stakeholders as to the location of former crude-oil transportation pipelines that were operated by Chevron's predecessors with respect to the jurisdiction of Kings County (see Figure 1), proposed 2035 Land Use of Kings County (see Figure 2), and the adopted 2008 Sphere of Influence (SOI) and proposed Blueprint Urban Growth Boundaries (see Figure 3). The intent is that the pipeline location information will be incorporated into the Final Program Environmental Impact Report and 2035 Kings County General Plan Update.

In the early 1900s, Chevron's predecessors built the Tidewater Associated Oil Company (TAOC) dual-pipeline system and the Old Valley Pipeline (OVP) system to transport heavy crude oil from oilfields in the southern San Joaquin Valley to refineries in the San Francisco Bay Area. The pipelines were operated until the early 1970s when they were decommissioned. The locations of the former OVP and TAOC pipelines in Kings County are illustrated on Figure 1.

Evidence of historic releases associated with the former OVP and TAOC pipelines are sometimes identified during the course of underground utility work and other subsurface construction activities near the pipeline alignments. Generally, residual weathered crude oil associated with Chevron's historical pipeline operations can be observed visually; however, analytical testing is necessary to confirm that the likely source of the affected material is associated with the former OVP or TAOC alignments. Government agencies agreed with the testing and analytical results from human health risk assessments performed at several known historical pipeline release sites, which confirm that soil affected by the historic release of crude-oil from the pipelines is non-hazardous and does not pose significant health risks.

It has also been established that residual subsurface oil in the soil is relatively immobile due to its heavy and weathered nature.

Currently, there are no known releases from the former OVP and TAOC pipelines in Kings County. CEMC's experience along various portions of the former OVP and TAOC alignments indicates that the potential exists for subsurface soil along and near the historical alignments to be affected by undocumented residual weathered crude oil. Therefore, Chevron requests to be informed of planned construction projects in the vicinity of the former pipeline alignments.

Note that Chevron Pipeline Company (CPL) may provide separate correspondence regarding activities associated with the active Cross Valley Pipeline (CVP) and Kettleman – Los Medanos (KLM) pipeline alignments, which are coincident with the former OVP and TAOC rights of way (see Figure 1).

For more information regarding the Historical Pipeline Portfolio–Bakersfield to Richmond alignment, please visit http://www.hppinfo.com/. If you have any questions or require additional information, please call SAIC consultants Tom Burns at (916) 979-3748 or Mohamed Ibrahim at (916) 979-3828 regarding the historical OVP and TAOC pipeline alignments, and CPL representative Jeremy Gross at (925) 783-2003 regarding the active CVP and KLM pipeline alignments.

Sincerely,

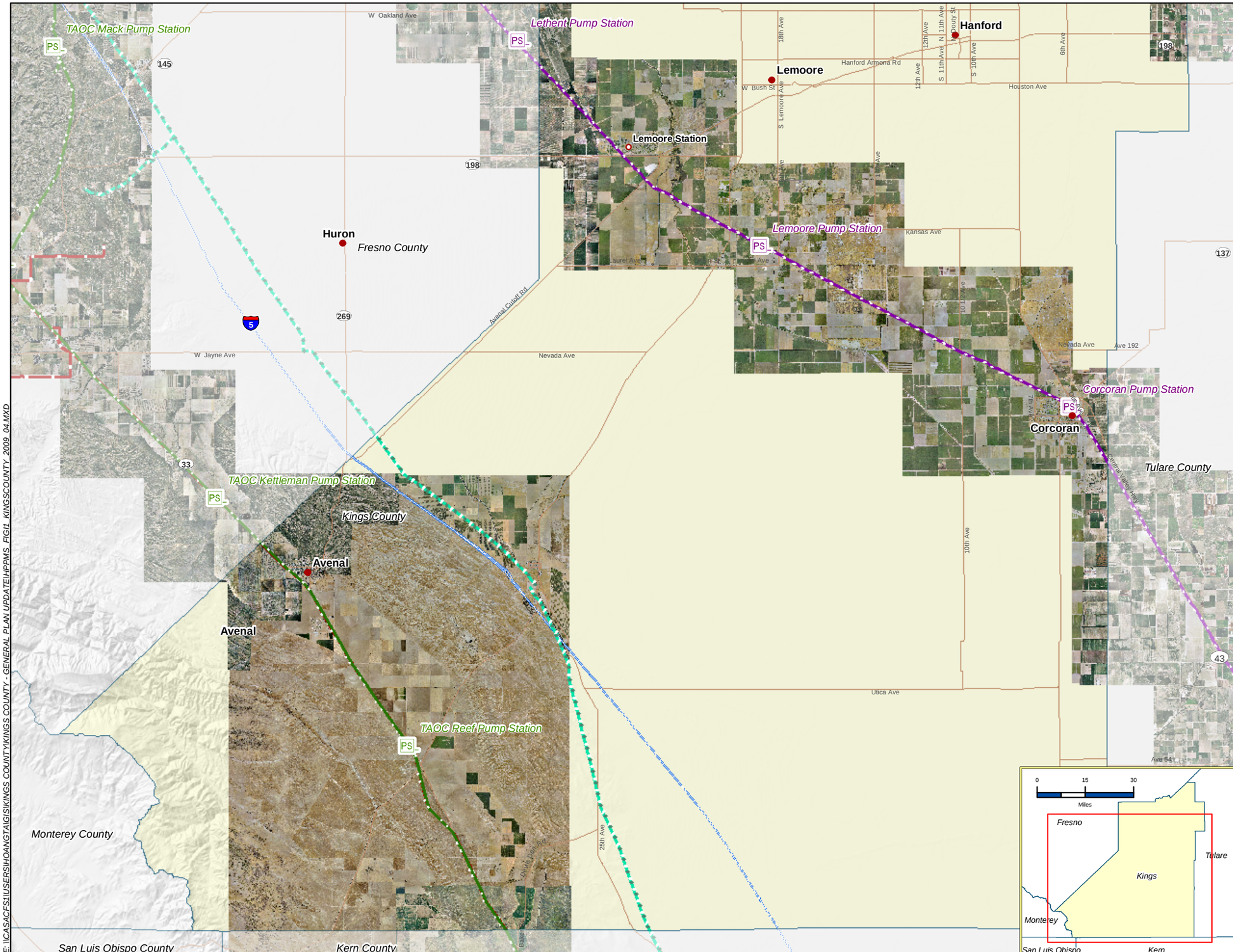
M. Scott Mansholt

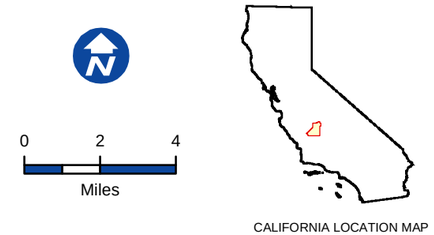
M. Scott Mansholt

MSM/klg

Enclosures:
Figure 1. Historical and Active Pipeline Alignments
Figure 2. Land Use Category Map
Figure 3. Sphere of Influence Boundaries

cc: Mr. Tom Burns – SAIC
3800 Watt Avenue, Suite 210, Sacramento, California 95821
Mr. Mike Jenkins – SAIC (letter only)
3800 Watt Avenue, Suite 210, Sacramento, California 95821
Mr. Jeremy Gross – Chevron Pipeline Company
2360 Buchanan Road, Pittsburg, California 94565





- Incorporated City
- Unincorporated Community
- Historical Old Valley Pipeline Pump Station
- Historical Tidewater Associated Oil Company Pipeline Pump Station
- Historical Old Valley Pipeline (OVP)
- Historical Tidewater Associated Oil Company (TAOC) Pipeline
- Active Cross Valley Pipeline (CVP)
- Active Kettleman-Los Medanos (KLM) Pipeline
- Kings County Boundary

NOTE: Currently, there are no actively managed project in Kings County.

NOTE: The TAOC and CVP follow the same ROW.

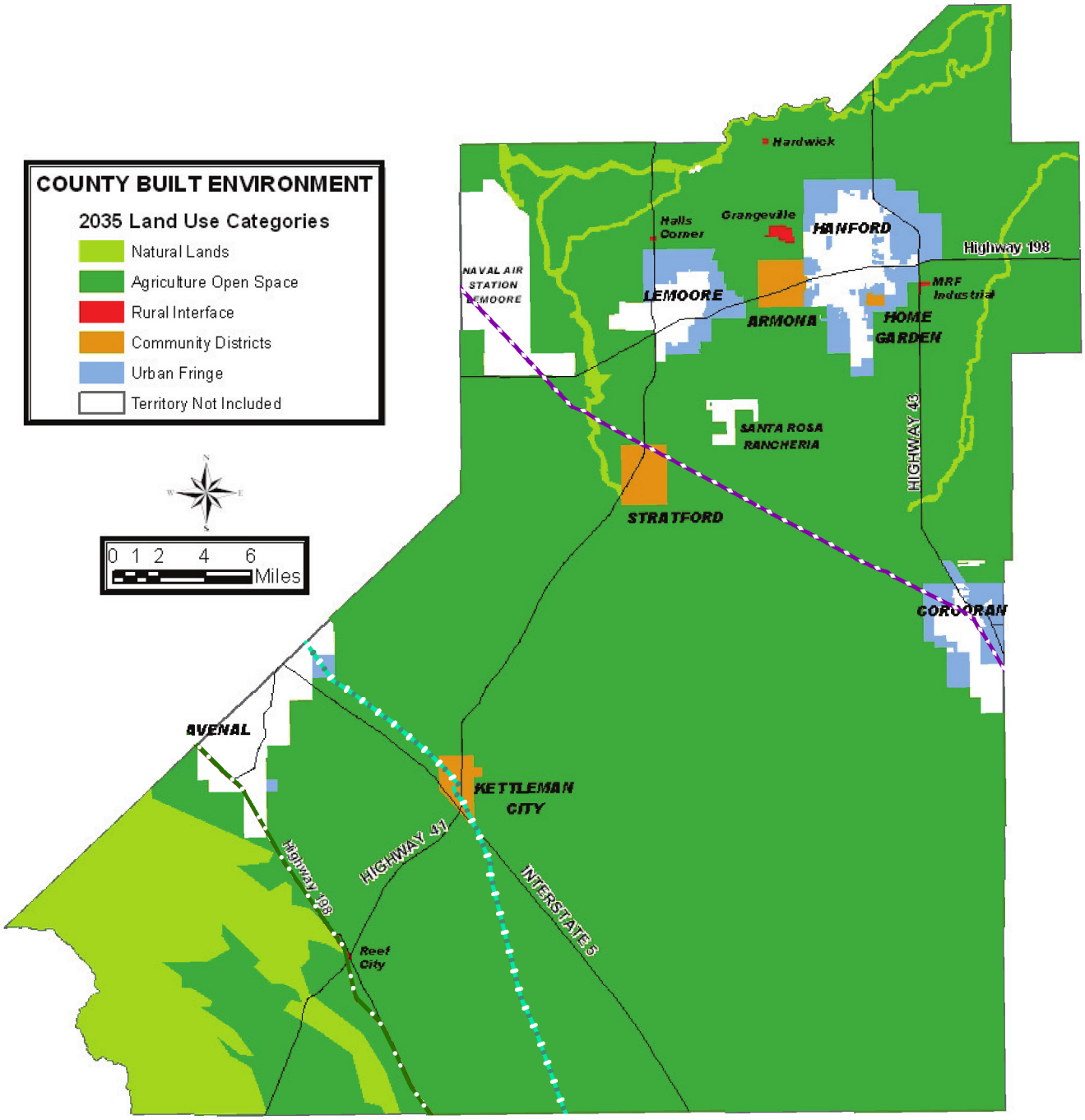
Map is a relative representation of current and historical data and should be verified for exact legal or underground work.

HISTORICAL AND ACTIVE PIPELINE ALIGNMENTS

KINGS COUNTY
California

DATE: 7/14/2009	ANALYST: HOANGTA	FIGURE:
SAIC From Science to Solutions		1

FILE: \\CASACFS1\USERS\HOANGTA\GIS\KINGS COUNTY\KINGS COUNTY - GENERAL PLAN UPDATE\HPPMS_FIG11_KINGSCOUNTY_2009_04.MXD



Note: The TAOC and CVP follow the same ROW.

Map is a relative representation of current and historical data and should be verified for exact legal or underground work.

- Historical Old Valley Pipeline (OVP)
- Historical Tidewater Associated Oil Company (TAOC) Pipeline
- Active Cross Valley Pipeline (CVP)
- Active Kettleman-Los Medanos (KLM) Pipeline

0 12,500 25,000
Feet

CALIFORNIA LOCATION MAP

LAND USE CATEGORY MAP

HISTORICAL AND ACTIVE PIPELINE ALIGNMENTS
Kings County, California

DATE: 7/10/2009 | ANALYST: HOANGTA | FIGURE: 2

SAIC
From Science to Solutions

FILE: \\CASACFS1\USERS\HOANGTA\GIS\KINGS COUNTY\KINGS COUNTY - GENERAL PLAN UPDATE\FIGURE1.MXD

Letter 1

COMMENTER: Scott Mansholt, Chevron Environmental Management Company

DATE: July 16, 2009

RESPONSE:

Response 1.1

The commenter notes that former crude-oil transportation pipelines were operated by Chevron's predecessors within Kings County and requests that the pipeline's locations be incorporated into the Final EIR and the 2035 Kings County General Plan. While the EIR does not specifically note ownership of the pipelines, it does acknowledge that several oil pipelines exist throughout the County. As discussed on pages 4.7-3, 4.7-4 and under Impact 4.7 in Section 4.7 *Hazards and Hazardous Materials*, hazardous materials are routinely transported via pipelines throughout the County and the transportation of such materials is highly regulated to ensure the safety of the public. Please note that the *2035 General Plan Health and Safety Element* contains several policies that would protect County residents and the environment from exposure to hazardous materials. In addition to these policies, compliance with existing hazardous materials transportation, storage and disposal regulations as well as continuing participation and maintenance of the Countywide emergency response systems would reduce impacts related to hazardous material upset risk to a less than significant level.

Response 1.2

The commenter states that evidence of historic releases associated with former pipelines are sometimes identified during the course of underground construction work near the pipeline alignments. The commenter states that government agencies agreed that the testing and analytical results confirm that the historic crude oil is non-hazardous and does not pose significant health risks. Although these materials may have been determined to be non-hazardous, the potential exists for the release of hazardous materials. Please note that the EIR acknowledges that negligence during use, construction activities, or accidents involving hazardous materials could result in the release of hazardous substances into the environment, as discussed on page 4.7-12 in Section 4.7 *Hazards and Hazardous Materials*. However, the *2035 General Plan Health and Safety Element* contains several policies that would protect County residents and the environment from exposure to hazardous materials. In addition to these policies, compliance with existing hazardous materials regulations would reduce potential impacts to a less than significant level.

Response 1.3

The commenter states that there are no known releases from the pipelines in Kings County; however, the potential exists for subsurface soils to be affected by undocumented historic crude oil. The commenter requests that Chevron is informed of planned construction projects in the vicinity of the former pipeline alignments. As discussed above in Response, 1.2, although these materials may have been determined to be non-hazardous, the potential

exists for the release of hazardous materials. The EIR acknowledges that negligence during use, construction activities, or accidents involving hazardous materials could result in the release of hazardous substances into the environment, as discussed on page 4.7-12 in Section 4.7 *Hazards and Hazardous Materials*. The *2035 General Plan Health and Safety Element* policies and existing regulations would reduce potential impacts to a less than significant level. Please note that the 2035 General Plan identifies the locations of all the potential development that could occur throughout the County, as found in the Land Use Element of the 2035 General Plan and described in Section 2.0 *Project Description* of the EIR.

Letter 2

Dave Singleton, Program Analyst
Native American Heritage Commission

STATE OF CALIFORNIA Arnold Schwarzenegger, Governor

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
Web Site www.nahc.ca.gov
e-mail: ds_nahc@pacbell.net

August 13, 2009

RECEIVED
AUG 17 2009
KINGS COUNTY COMMUNITY DEVELOPMENT AGENCY

Mr. Greg Gatzka
KINGS COUNTY COMMUNITY DEVELOPMENT AGENCY
1400 West Lacey Boulevard, Building 6
Hanford, CA 93230

Re: SCH#2008121020; CEQA Notice of Completion; draft Environmental Impact Report (DEIR) for the **2035 Kings County General Plan – Program EIR Project** ; located in Kings County, California

Dear Mr. Gatzka:

The Native American Heritage Commission (NAHC) is the state 'trustee agency' pursuant to Public Resources Code §21070 for the protection and preservation of California's Native American Cultural Resources. The California Environmental Quality Act (CEQA) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per the California Code of Regulations §15064.5(b)(c)(f) CEQA guidelines). Section 15382 of the 2007 CEQA Guidelines defines a significant impact on the environment as "a substantial, or potentially substantial, adverse change in any of physical conditions within an area affected by the proposed project, including ...objects of historic or aesthetic significance." In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE)', and if so, to mitigate that effect. To adequately assess the project-related impacts on historical resources, the Commission recommends the following action:

The Native American Heritage Commission did perform a Sacred Lands File search and no Native American Cultural resources were identified. Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries once a project is underway. Enclosed are the names of the nearest tribes and interested Native American individuals that the NAHC recommends as 'consulting parties,' for this purpose, that may have knowledge of the religious and cultural significance of the historic properties in the project area (e.g. APE). We recommend that you contact persons on the attached list of Native American contacts. A Native American Tribe or Tribal Elder may be the only source of information about a cultural resource.. Furthermore we suggest that you contact the California Historic Resources Information System (CHRIS) at the Office of Historic Preservation Coordinator's office (at (916) 653-7278, for referral to the nearest Information Center of which there are 11..

Consultation with tribes and interested Native American consulting parties, on the NAHC list ,should be conducted in compliance with the requirements of federal NEPA (42 U.S.C. 4321-43351) and Section 106 and 4(f) of federal NHPA (16 U.S.C. 470 [f]*et se),* and NAGPRA (25 U.S.C. 3001-3013), as appropriate. .

Lead agencies should consider avoidance, as defined in Section 15370 of the California Environmental Quality Act (CEQA) when significant cultural resources could be affected by a project. Also, Public Resources Code Section 5097.98 and Health & Safety Code Section 7050.5 provide for provisions for accidentally discovered archeological resources during construction and mandate the processes to be followed in the event of an accidental discovery of any human remains in a project location other than a 'dedicated cemetery. Discussion of these should be included in your environmental documents, as appropriate.

A Sacred Lands File search was conducted at this location for Native American cultural resources and cultural resources were identified. This record search is conducted in the NAHC Sacred Lands Inventory, established by the California Legislature (CA Public Resources Code §5097.94(a) and is exempt from the CA Public Records Act (c.f. California Government Code §6254.10). However, Native Americans on the attached contact list are not prohibited from and may wish to reveal the nature of identified cultural resources/historic properties. Confidentiality of "historic properties of religious and cultural significance' may also be protected the under Section 304 of the NHPA or at the Secretary of the Interior' discretion if not eligible for listing on the National Register of Historic Places. The Secretary may also be advised by the federal Indian Religious Freedom Act (cf. 42 U.S.C, 1996) in issuing a decision on whether or not to disclose items of religious and/or cultural significance identified in or near the APE and possibly threatened by proposed project activity.

CEQA Guidelines, Section 15064.5(d) requires the lead agency to work with the Native Americans identified by this Commission if the initial Study identifies the presence or likely presence of Native American human remains within the APE. CEQA Guidelines provide for agreements with Native American, identified by the NAHC, to assure the appropriate and dignified treatment of Native American human remains and any associated grave liens.

Health and Safety Code §7050.5, Public Resources Code §5097.98 and Sec. §15064.5 (d) of the California Code of Regulations (CEQA Guidelines) mandate procedures to be followed, including that construction or excavation be stopped in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery until the county coroner or medical examiner can determine whether the remains are those of a Native American. . Note that §7052 of the Health & Safety Code states that disturbance of Native American cemeteries is a felony.

Again, Lead agencies should consider avoidance, as defined in §15370 of the California Code of Regulations (CEQA Guidelines), when significant cultural resources are discovered during the course of project planning and implementation

Please feel free to contact me at (916) 653-6251 if you have any questions.

Sincerely,

Dave Singleton
Program Analyst

Attachment: List of Native American Contacts

Cc: State Clearinghouse

Native American Contact
Kings County
August 13, 2009

Santa Rosa Rancheria
Chairperson
P.O. Box 8
Lemoore , CA 93245
(559) 924-1278
(559) 924-3583 Fax

Tache
Tachi
Yokut

Esohm Valley Band of Indians
Kenneth Woodrow, Chairperson
1179 Rock Haven Ct.
Salinas , CA 93906
831-443-9702

Foothill Yokuts
Mono

Table Mountain Rancheria
Lee Ann Walker Grant, Chairperson
P.O. Box 410
Friant , CA 93626-0177
(559) 822-2587
(559) 822-2693 FAX

Yokuts

Santa Rosa Rancheria
Lalo Franco, Director - Cultural Deparment
P.O. Box 8
Lemoore , CA 93245
(559) 924-1278

Yokuts
Tachi

Tule River Indian Tribe
Ryan Garfield, Chairperson
P.O. Box 589
Porterville , CA 93258
chairman@tulerivertribe-nsn.
(559) 781-4271
(559) 781-4610 FAX

Yokuts

Kings River Choinumni Farm Tribe
John Davis, Chairman
1064 Oxford Avenue
Clovis , CA 93612-2211
559-324-9908

Foothill Yokuts
Choinumni

This list is current only as of the date of this document.
Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code. and federal NEPA (42 USC 4321-43351), NHPA Sections 106, 4(f) (16 USC 470(f) and NAGPRA (25 USC 3001-3013)

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH#2008121020; CEQA Notice of Completion; draft Environmental Impact Report (DEIR) flro the 2035 Kings County General Plan - Program EIR; located in Kings County, California.

Letter 2

COMMENTER: Dave Singleton, Native American Heritage Commission

DATE: August 13, 2009

RESPONSE:

Response 2.1

The commenter notes that the NAHC is a state 'trustee agency' and notes the CEQA requirements regarding archeological resources. The commenter recommends several actions to assess potential project related impacts. These recommended actions are addressed in Responses 2.2 through 2.6 below

Responses 2.2 and 2.3

The commenter states that a Sacred Lands File search was performed and no Native American Cultural Resources were identified. The commenter provides a list of contacts and recommends contacting those on the list to further verify the absence of cultural resources. The commenter states that consultation with tribes and interested Native American consulting parities on the NAHC list should be conducted in compliance with federal regulations.

Pursuant to the requirements of SB 18, the County mailed a consultation notice to the listed persons on May 18, 2009 to inform them of the proposed General Plan Update. In addition, the County submitted letters to inform the tribes of the Public Hearing date. No written or verbal comments were received from any of the consulted tribes.

Response 2.4

The commenter states that the lead agency should consider avoidance as defined in Section 15370 of CEQA when significant cultural resources could be affected by a project. As discussed in Section 4.5 Cultural Resources of the EIR, it is known that prehistoric resources are present in Kings County and the surrounding area, and that the plan area contains more than 90 identified cultural resource sites (CHRIS, 2004). The EIR identifies 16 historic sites throughout the County. There is also the potential to encounter additional, undiscovered resources within the County (and/or potential Community Plan areas). Therefore, the 2035 General Plan could potentially facilitate development in areas of cultural resource sensitivity. However, proposed 2035 General Plan policies, which encourage avoidance and protection of cultural resources, and existing regulations pertaining to the discovery of cultural resources, would ensure that impacts are less than significant. Applicable 2035 General Plan policies are as follows.

RC GOAL I1 *Preserve significant historical and archaeological sites and structures that represent the ethnic, cultural, and economic groups that have lived and worked in Kings County.*

RC OBJ I1.1 *Promote the rehabilitation or adaptation to new uses of historic sites and structures.*

RC Policy I1.1.2 *Direct proposed developments that may affect proposed or designated historic sites or County landmarks to the Kings County Museum Advisory Committee or other similarly purposed advisory body under the Kings County Parks and Recreation Advisory Commission for review and comment.*

RC Policy I1.1.3 *Encourage the protection of cultural and archaeological sites with potential for placement on the National Register of Historic Places and/or inclusion in the California Inventory of Historic Resources.*

RC Policy I1.1.4 *Refer applications that involve the removal, destruction, or alteration of proposed or designated historic sites or County landmarks to the Kings County Museum Advisory Committee or its successor for recommended mitigation measures.*

RC OBJ I1.2 *Identify potential archaeological and historical resources and, where appropriate, protect such resources.*

RC Policy I1.2.1 *Participate in and support efforts to identify significant cultural and archaeological resources and protect those resources in accordance to Public Resources Code 5097.9 and 5097.993.*

RC Policy I1.2.3 *Address archaeological and cultural resources in accordance with the California Environmental Quality Act (CEQA) for discretionary land use applications.*

Response 2.5

The commenter states that a Sacred Lands File Search was conducted for the project location and that cultural resources were identified. Since this comment appears to contradict the statement in Comment #2 above, the commenter was contacted on September 8, 2009 for clarification. The commenter indicated that this statement was erroneous, and pertains to another project. He requested that this comment be withdrawn.

The commenter also notes that the CEQA guidelines require the lead agency to work with Native Americans if the presence of cultural resources is confirmed. As discussed in Section 4.5 Cultural Resources of the EIR, it is known that prehistoric populations are present in Kings County and the surrounding area, and that the plan area contains more than 90 identified cultural resource sites (CHRIS, 2004). The EIR identifies 16 historic sites throughout the County. There is also the potential to encounter additional, undiscovered resources within the County (and/or potential Community Plan areas). The proposed 2035 General Plan establishes policies that encourage avoidance and protection of cultural resources. In regard to lead agency cooperation with the Native Americans, the following policies facilitate this effort.

RC Policy I1.2.2 *Continue to solicit input from local Native American communities in cases where development may result in disturbance to sites containing evidence of Native American Activity and/or to sites of cultural importance.*

RC Policy I1.2.3 *Address archaeological and cultural resources in accordance with the California Environmental Quality Act (CEQA) for discretionary land use applications.*

RC Policy I1.2.4 *The County will respectfully comply with Government Code §65352.3 (SB18) by conducting formal consultations with tribes as identified by the Native American Heritage Commission on all general plan and specific plan amendments.*

RC Policy I1.2.5 *The County will respectfully comply with Government Code §6254.(r) and 6254.10 by protecting confidential information concerning Native American cultural resources. For example adopting internal procedures such as keeping confidential archaeological reports away from public view or discussion in public meetings.*

RC Policy I1.2.1.6 *The County shall work in good faith with the Santa Rosa Rancheria Tachi Yokut Tribe ("Tribe"), the developer and other parties if the Tribe requests return of certain Native American artifacts from private development projects (e.g. for interpretive or educational value). The developer is expected to act in good faith when considering the Tribe's request for artifacts. Artifacts not desired by the Tribe shall be placed in a qualified repository as established by the California State Historical Resources Commission (see Guidelines for the Curation of Archaeological Collections, May 1993). If no facility is available, then all artifacts shall be donated to the Tribe.*

The proposed policies and existing regulations regarding cultural resources were determined in the EIR to reduce potential impacts to cultural resources to a less than significant level.

Response 2.6

The commenter states that pursuant to Health and Safety code 7050.5(d), construction or excavation must be stopped in the event of an accidental discovery of any human remains. Future development under the 2035 General Plan is required to comply with the existing Health and Safety regulation. No change to the EIR is deemed necessary.

Letter 3

Larry Dotson, Senior Engineer
Kaweah Delta Water Conservation District

KAWEAH DELTA
Water Conservation
DISTRICT

RECEIVED
AUG 19 2009
KINGS COUNTY COMMUNITY
DEVELOPMENT AGENCY

August 18, 2009

Mr. Greg Gatzka, Deputy Director – Planning
Kings County Community Development Agency
Kings County Government Center, Building No. 6
1400 West Lacey Boulevard
Hanford, California 93230

Subject: Draft 2035 Kings County General Plan
Program Environmental Impact Report (SCH No. 2008121020)

This correspondence is in response to the Notice of Intent to Adopt a Program Environmental Impact Report(EIR) for the Draft 2035 Kings County General Plan Update(2035 GPU). Kaweah Delta Water Conservation District is responsible for monitoring groundwater levels and promoting groundwater recharge projects within our boundary. Review of the noted CEQA document was accomplished and the District has the following comments.

Based on the Evaluation of Environmental Impacts prepared by the County for the initial study of the project (EIR, Appendix A), it is stated that the 2035 GPU could have a potentially significant impact to *Hydrology and Water Quality* that would substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. Our review of the Draft EIR found that this impact was not directly addressed in the *Hydrology and Water Quality* section of the Environmental Impact Analysis part of the document. The District recognizes that the 2035 GPU proposes resource conservation policies for water resources with goals and objectives focused on the County's water supply and that some of the policies are referred to in various other impact analyses within the EIR.

The District respectfully requests that County perform an adequate environmental analysis on the impacts to groundwater supplies that could result from the 2035 GPU. Fundamental to the analysis should be the following considerations:

- ✓ The aquifer has a "Safe Yield", such that average annual extraction should not exceed average annual replenishment.
- ✓ Recognition that the aquifer is in long-term overdraft, or exceeding of Safe Yield.
- ✓ Understanding that there are insufficient average annual surface water supplies to meet current or future demands and the result is groundwater extraction in excess to the Safe Yield of the aquifer.
- ✓ Surface water supplies have been recently reduced to the area causing an increase in usage of groundwater to meet demands.

- ✓ Continued over drafting to the aquifer can cause impacts such as subsidence, thereby reducing available future groundwater storage capacity.
- ✓ Climatic change should be taken into consideration when performing impact analysis for future water supplies.

The District appreciates the opportunity to provide comment to the Draft EIR for the 2035 GPU regarding the County's vital groundwater resources. Please contact me if you have any questions or would request further assistance in this matter.

Respectfully,

Larry Dotson
Senior Engineer

Letter 3

COMMENTER: Larry Dotson, Kaweah Delta Water Conservation District

DATE: August 18, 2009

RESPONSE:

Response 3.1

The commenter states that based on the Initial Study prepared for the 2035 General Plan update, the project would have the potential to deplete groundwater supplies or interfere with groundwater recharge and that the Draft EIR did not address this potential impact in the *Hydrology and Water Quality* section. The commenter requests that the County perform an environmental analysis of the impacts to groundwater supplies that could result from the 2035 General Plan. The Draft EIR addressed potential impacts to groundwater resources and potential impacts to groundwater recharge in Section 4.15 *Utilities and Service Systems* under Impact U-1. Potential impacts related to groundwater recharge and impervious surfaces are discussed in Section 4.8 *Hydrology and Water Quality* under Impact HWQ-3. No change to the EIR is deemed necessary.

Letter 4

Rachel Audino, Regional Planner
Kings County Association of Governments

Kings County Association of Governments

339 W. "D" Street, Suite B, Lemoore, California 93245
(559) 582-3211 extension 2654 ❖ FAX (559) 924-5632
www.countyofkings.com/kcag

Member Agencies: Cities of Avenal, Corcoran, Hanford and Lemoore, County of Kings

August 17, 2009

RECEIVED

AUG 20 2009

KINGS COUNTY COMMUNITY DEVELOPMENT AGENCY

Greg Gatzka
Kings County Community Development Agency
1400 W. Lacey Boulevard, Building 6
Hanford, CA 93230

RE: DRAFT 2035 KINGS COUNTY GENERAL PLAN - PROGRAM ENVIRONMENTAL IMPACT REPORT SCH No. 2008121029

Dear Mr. Gatzka,

I am writing on behalf of the Kings County Association of Governments regarding the Draft 2035 Kings County General Plan Program Environmental Impact Report (PEIR). Staff has reviewed the air quality, land use and planning, and transportation and circulation sections of the draft PEIR. In doing so, KCAG is confident that these sections are in keeping with KCAG's future planning assumptions.

Specifically, in reviewing the air quality section of the draft PEIR, KCAG believes the county's usage of infill development and redevelopment projects to accommodate population growth in the 2035 maximum build out scenario is reflective of the Kings County Preferred Growth Scenario as based on the Blueprint Urban Growth Boundaries and Planning Principles generated by the local Blueprint process. Additionally, staff agrees that the draft PEIR mirrors the planning assumptions outlined in the KCAG Regional Housing Needs Assessment (RHNA).

Furthermore, in reviewing the land use and planning section for the draft PEIR, staff agrees that "strengthening and balancing vehicle, bicycle, pedestrian, and transit connections in the County" are in line with the policies in the Kings County 2007 Regional Transportation Plan (RTP). Moreover, in considering the discrepancies between the California Department of Finance population projections used for the 2035 General Plan and those used for the 2007 RTP, KCAG is confident that these discrepancies will be addressed in our 2011 RTP.

After reading the transportation and circulation section, we anticipate that the improvements made to SR 198 between 6th Avenue and the Tulare County Line will improve the level of service from its current LOS F as indicated in the draft PEIR. Furthermore, we believe that the proposed improvements at the 13th Avenue and SR 198 interchange will improve the interchange's current level of service.

In considering the limited amount of State Transportation Improvement Program (STIP) funding that will be available in future years, KCAG believes that STIP funding alone will not be sufficient to meet the future needs of the 13th Avenue interchange project and the other projects in the draft PEIR. KCAG believes that a reliance on STIP funding alone would delay their openings to traffic to a date after 2035. With this in mind, KCAG supports *C Policy A1.2.3.* in which the County of Kings will work with the City of Hanford to develop transportation related development impact fees to create a funding mechanism for projects. To address the potential future deficient levels of service on three segments of SR 43 and one on SR 41, KCAG supports the implementation of a traffic mitigation fee program as detailed in mitigation measure TC-1(b).

Additionally, in reviewing Impact TC-3 in the transportation and circulation element, KCAG would like to address the paragraph about using a portion of the San Joaquin Valley Railroad as a shared-use development for pedestrian and bicycle use. In 2006, KCAG released the Cross County Path Plan that outlined the feasibility of this path for Kings County. As a result of difficulties experienced in subsequent planning work undertaken by the local agencies, we feel that this segment of railroad corridor cannot be relied upon in its totality as a potential shared-use bicycle and pedestrian facility.

We are greatly looking forward to working with you on future projects to realize our agencies' mutual goals.

Sincerely,

KINGS COUNTY ASSOCIATION OF GOVERNMENTS
Terri King, Executive Director

Rachel Audino, Regional Planner

Letter 4

COMMENTER: Rachel Audino, Kings County Association of Governments

DATE: August 17, 2009

RESPONSE:

Response 4.1

The commenter states that the maximum buildout scenario of the 2035 General Plan is consistent with the Kings County Preferred Growth Scenario as based on the blueprint Urban Growth Boundaries and Planning Principles. The commenter also states that the Draft EIR reflects the planning assumptions outlined in the KCAG RHNA. No change to the EIR is deemed necessary.

Response 4.2

The commenter agrees that the 2035 General Plan is consistent with the policies of the 2007 Kings County Regional Transportation Plan (RTP). The commenter notes that the 2011 RTP will be updated to reflect the population projections of the 2035 General Plan. No change to the EIR is deemed necessary.

Response 4.3

The commenter agrees that the proposed improvements to SR 198 will improve the level of service as disclosed in the EIR. No change to the EIR is deemed necessary.

Response 4.4

The commenter expresses support of C Policy A1.2.3, which relates to the development of impact mitigation fees. No change to the EIR is deemed necessary.

Response 4.5

The commenter expresses concern that based on the 2006 KCAG Cross County Path Plan, using certain portions of the San Joaquin Valley Railroad as a shared use path would present difficulties. The San Joaquin Valley Railroad shared use path is noted in the EIR as one potential project that would facilitate pedestrian safety. Although portions of the potential shared use path may not be implemented in the future, the portions that are planned to be implemented would provide incentives for pedestrian usage, which would help to increase overall safety, as noted in the EIR on page 4.14-23 in section 4.14 *Transportation and Circulation*. In addition, the 2035 General Plan includes several policies that are expected to improve overall safety conditions for pedestrians throughout the County. Implementation of General Plan policies with regard to future development in any of the potential mixed-use areas would also minimize traffic-related hazards associated with the development of those areas. Therefore, impacts related to traffic safety as a result of development under the draft 2035 General Plan would be less than significant.

Letter 5

James R. Knapp, Captain, U.S. Navy, Commanding Officer
Naval Air Station Lemoore

DEPARTMENT OF THE NAVY
COMMANDING OFFICER
NAVAL AIR STATION
700 AVENGER AVENUE
LEMOORE, CALIFORNIA 93246-5001

IN REPLY REFER TO:

5090
Ser N00/0296
Aug 20 2009

Greg Gatzka, Deputy Planning Director
Kings County Community Development Agency
1400 W. Lacey Blvd.
Hanford, CA 93230

Dear Mr. Gatzka:

On behalf of Navy, thank you for the opportunity to comment on the Draft 2035 Environmental Impact Report (DEIR) for the Kings County General Plan. Since inclusion in the Kings County General Plan Advisory Committee, we have enjoyed a cordial and professional working relationship which has enabled us to share our ideas and concerns over the 2035 Kings County General Plan Update. Below are the chief concerns we would like to present regarding the General Plan. The enclosure offers additional review comments for the DEIR.

Of primary concerns to the Navy is the County's proposal for residential development in >65 decibels (dB) Community Noise Exposure Level (CNEL) noise contour areas. The impacts of such development will expose new residents to unnecessary health and safety risks. One of the objectives of the Air Installation Compatible Use Zone (AICUZ) study is to; "Protect the health, safety, and welfare of civilians and military by encouraging land use which is compatible with aircraft operations." Residential construction in >65dB CNEL aircraft noise contour area is incompatible with AICUZ compatible land use implementation recommendations and will encroach on the installation's pre-existing low level flight corridors.

Encroachment under Naval Air Station (NAS) Lemoore's established ground control approach flight corridors is an additional concern. Encroachment can threaten the future of a military installation, leading to closure or to increased restrictions on the installations activities. Employment statistics from the Kings County Area Employment Development Department indicate that NAS Lemoore is the largest employer in the county. The Navy and the County should continue to work together in order to maintain NAS Lemoore's strategic and economic capacity now and in the future.

As provided in our response to the notice of preparation (3 January 2008), NAS Lemoore supports well-planned compatible growth and applauds Kings County Community Development Agency's efforts to comprehensively plan for the year 2035. NAS Lemoore is unequivocally committed to engagement in the public planning processes and dialogue in a transparent manner. We will make available documentation and data of common interest to the Navy and local governments. Of particular note, we expect to have new and updated flight noise and hazard data available through an AICUZ study. That study is currently underway and projected to be completed in the near future. Additionally, NAS Lemoore looks forward to collaborating with Kings County Community Development Agency in a Joint Land Use Study projected to begin summer 2009.

NAS Lemoore and Kings County are inextricably connected, thus we look forward to collaborating with Kings County Community Development Agency to promote compatible land use that complements County growth and NAS Lemoore's mission.

My point of contact for this matter is Mr. Roman V. Benitez, who can be reached at (559) 998-2939 or roman.benitez@navy.mil.

Sincerely,

James R. Knapp

JAMES R. KNAPP
Captain, U.S. Navy
Commanding Officer

Enclosure: 1. Naval Air Station Comments

Naval Air Station Lemoore Comments on
Kings County DEIR (July 2009)

#	Page	Reference	Comment
1.	ES-11	Table ES-1	**Impact HAZ-3**: Public and private airports in Kings County could create safety hazards for near by developments. They could also create similar hazards to NAS Lemoore's pre-established flight corridors. **Recommendation**: Modify sentence to read; "Public and private air ports in Kings County could create safety hazards for near by developments or pre-existing NAS Lemoore flight corridors."
2.	ES-13	Table ES-1	**Impact N-1**: One of the objectives of the Air Installation Compatible Use Zone Study (AICUZ) is to; "Protect the health, safety, and welfare of civilians and military by encouraging land use which is compatible with aircraft operations. "Residential construction in >65 decibels (dB) aircraft noise contour is incompatible with AICUZ compatible land use implementation recommendations. (OPNAVINST 11010.36C Dated: 9 October 2008) **Recommendation**: 1. Restrict incompatible construction in affected area. • Residential construction in a >65dB noise contour area can expose new residents to unnecessary health and safety risks. • Residential construction in a >65dB noise contour area can encroach on the installations pre-established flight corridors.
3.	ES-14	Table ES-1	**Impact PH-2 (General Comment)**: "***Increase in population for this area to approximately 52,174.***" As urban growth and development increased near and around military installations land use conflicts/encroachments between base operations and civilian development increases. **Recommendations**: NAS Lemoore is not opposed to smart growth. It welcomes the opportunity to work with the County on the upcoming Joint Land Use Study and team up in finding solutions which will support the County's General Plan and the installation's quest for an encroachment free operating environment.
4.	2-3/2-4	2.4 GP Objectives	**Draft 2035 General Plan Objectives**: Concur with the county's objectives; however, the General Plan (GP) should outline NAS Lemoore's strategic and economic impactasset and its unique capabilities which can not be duplicated elsewhere. **Recommendation**: Add an additional objective to the GP 2035 to include; "**Protect the operational capabilities of NAS Lemoore.**"
5.	2-20	Noise Element	2nd Paragraph line 1. Delete, **"the new."**
6.	Fig 2-6	Section 2	**General Comments**: Via 2009 AICUZ study, NAS Lemoore is in the process of modeling F-18 and JSF-35 noise contours. The information will be made available once completed. **Recommendation**: Modify title to read; "Proposed F-18 Noise Contours for NAS Lemoore."
7.	4.7-7	Airport Safety Hazards	**General Comments**: NAS Lemoore Military Influence Area (MIA) is a designated geographic planning area where military operations may impact local communities, and conversely, where local activities may affect the military's ability to carry out its mission. **Recommendation**: Add Figure 4.7-4 denoting "NAS Lemoore's MIA."

#	Page	Reference	Comment
8.	4.7-16	Hazards & Hazardous Materials	**LU Policy B6.1.1**: NAS Lemoore Air Operations Manual governs aircraft operating procedures within NAS Lemoore's airspace. **Recommendation**: Replace "Encroachment Action Plan" with "Air Operations Manual."
9.	4.7-16	Hazards & Hazardous Materials	**LU Policy B6.1.2**: Reference row 2 (Impact N-1). **Recommendation**: Change Exclusive Agriculture zoning underneath NAS Lemoore's defined flight path corridors from 70dB to >65dB CNEL.
10.	4.7-16	Hazards & Hazardous Materials	**HS Policy C3.1.1**: NAS Lemoore MIA is a designated geographic planning area where military operations may impact local communities, and conversely, where local activities may affect the military's ability to carry out its mission. **Recommendation**: After AICUZ add, "MIA."
11.	4.10-4	Airports	**General Comments**: NAS Lemoore description. **Recommendation**: Update to read; "NAS Lemoore is the Navy's largest and only west coast Master Jet Base. The installation occupies 18,784 acres and controls an additional 10,030 acres in airspace. Its principal mission is to support the Strike-Fighter Wing of the U.S. Pacific Fleet, whose mission is to train, man, and equip the west coast Strike-Fighter squadrons. Equipped with facilities to handle the most modern tactical aircraft, NAS Lemoore fulfills a critical role in the nation's defense. NAS Lemoore hosts fourteen operational Strike-Fighter squadrons, two Strike-Fighter Fleet Replacement squadrons, and all four west coast Carrier Air Wing Commanders and their staffs. With the primary focus on offensive tactical strike-fighter operations, the 283 F/A-18 Hornets and Super Hornets stationed at NAS Lemoore average approximately 210,000 flight operations per year, making it one of the busiest military airports in the country."
12.	4.10-18	N Policy A1.2.2	**General Comments**: Reference row 2 (Impact N-1). **Recommendation**: 1. Restrict incompatible construction in affected area. • Residential construction in a >65dB noise contour area can expose new residents to unnecessary health and safety risks. • Residential construction in a >65dB noise contour area encroaches on the installation's pre-established flight corridors.
13.	4.10-18	N Policy A1.2.3	**General Comments**: Reference row 2 (Impact N-1). Policy seems to indicate that residential construction could be allowed in >65 Db CNEL. **Recommendation**: 1. Restrict incompatible construction in affected area. • Residential construction in a >65dB noise contour area can expose new residents to unnecessary health and safety risks. • Residential construction in a >65dB noise contour area can encroach on the installations pre-established flight corridors.

#	Page	Reference	Comment
14.	4.10 -19	SC Policy 7C.1.1	**General Comments 2035 Stratford Community Plan**: Reference row 2 (Impact N-1). Policy seems to indicate that residential construction could be allowed in >65 Db CNEL. **Recommendation**: 1. Restrict incompatible construction in affected area. • Residential construction in a >65dB noise contour area can expose new residents to unnecessary health and safety risks. • Residential construction in a >65dB noise contour area encroaches on the installation's pre-established flight corridors.

Letter 5

COMMENTER: James Knapp, Department of the Navy

DATE: August 17, 2009

RESPONSE:

Response 5.1

The commenter expresses general concern regarding residential development that could occur in areas with CNEL great that 65 decibels. These concerns are addressed in further detail below.

Response 5.2

The commenter expresses general concern regarding encroachment into the Naval Air Station's established ground control approach flight corridors. These concerns are address in further detail below.

Response 5.3

The commenter recommends that the noted sentence is modified to " [p]ublic and private airports in Kings County could create safety hazards for near by development or preexisting NAS Lemoore flight corridors". The 2035 General Plan would not create safety hazards for existing NAS Lemoore flight corridors as it discourages development within the established public safety buffer. The 2035 General Plan also contains numerous policies relating to land use in the vicinity of the NAS Lemoore that would reduce potential impacts related to future development to a less than significant level, as noted in Section 4.7 *Hazards and Hazardous Materials*. Applicable General Plan policies include the following:

LU Policy B6.1.1	*Areas identified as significant to Naval Air Station Lemoore operations as defined in the base's "Encroachment Action Plan", "Airport Installation Compatible Use Zones", "Military Influence Area", or multi-agency coordinated "Joint Land Use Study" shall be designated Exclusive Agriculture.*
LU Policy B6.1.2	*Exclusive Agriculture shall be used along NAS Lemoore defined flight path corridors that exhibit levels of at least 70 dB CNEL aircraft generated noise to limit and discourage intensive agricultural and structure based land uses that may pose increased risks to inhabitants and base operations.*
HS Goal C3	*Ensure Naval Air Station Lemoore, public airports and special use heliports remain operationally effective and free from encroachment of incompatible land uses, while surrounding land use compatibility serves to protect people and property from unnecessary exposure and hazards related to aircraft.*

HS Objective C3.1 *Maintain a restricted land use buffer around the Naval Air Station Lemoore to prevent encroachment of incompatible land uses, and engage in coordinated efforts to plan for long term operations and safety.*

HS Policy C3.1.1 *Reference the Naval Air Station Lemoore (NASL) Military Operational Area (MOA) and Air Installation Compatible Use Zones (AICUZ) in establishing land use policies within three miles of the base.*

HS Policy C3.1.2 *Apply the Exclusive Agriculture as the "Agriculture for Public Safety" land use designation where NASL aircraft operations cross over County unincorporated territory and potentially pose safety hazards to people and property, and prohibit the creation of any homesite on property less than 40 acres in size. Exceptions to this policy shall include the creation of a farm home retention or transfer of title as established in Land Use Element Policy B4.3.1 and Policy B4.3.2.*

No change to the EIR is deemed necessary.

Response 5.4

The commenter recommends restricting all residential development within a 65 decibel or greater contour. The 2035 General Plan includes policies that would preclude development in areas that are exposed to military aircraft or airport daily average noise levels greater than 60 decibels, which would be a stricter noise threshold than the one proposed. The applicable policy is as follows (as described in Section 4.10 *Noise,* of the EIR).

SCP Policy 7C.1.1 *Residential designated land located within military aircraft noise contours of 60 CNEL or greater shall be subject to Noise Element policies for aircraft noise, which may restrict new development or require implementation of mitigation measures to reduce the exposure of residents to excessive noise.*

N Policy A1.2.3 *New residential development proposed in airport noise environments within the 60 dB CNEL contours or greater shall be subject to the following conditions:*

A. *Provide minimum noise insulation to 45 dB CNEL within new residential dwellings, including detached single family dwellings, with windows closed in any habitable room.*
B. *Provide disclosure statements to prospective buyers that the parcel is located in an area which may be exposed to frequent aircraft noise events (arrivals, departures, overflights, engine run-ups, etc.).*

> C. *An Avigation Easement, on forms provided by the County, shall be recorded with the Kings County Recorder, for each newly created residential parcel or agricultural parcel less than 10 acres in size, or when a building permit is issued on an existing parcel or lot, within any area, or the 60 dB CNEL contour of the Naval Air Station, Lemoore flight patterns as shown on Figure N-8. Copies shall be filed with the County's Community Development Agency. The Avigation Easement shall be granted to the County of Kings and acknowledge the property is located near a source of aircraft noise and grants the right of flight and unobstructed passage of all aircraft, civilian and military, into and out of the subject public use airport, emergency services heliport, or military airfield.*

No change to the EIR is deemed necessary.

Response 5.5

The commenter recommends that the County coordinate efforts with NAS Lemoore to achieve mutual goals. The 2035 General Plan includes the following policy, which addresses this recommendation.

> ***HS Policy C3.1.3*** *Participate in a Joint Land Use Study with NASL to enhance coordinated land use efforts.*

No change to the EIR is deemed necessary.

Response 5.6

The commenter recommends a modification to the objectives of the 2035 General Plan. This comment relates to the 2035 General Plan and does not identify an inadequacy in the analysis, conclusions, or mitigation measures of the EIR; therefore, a detailed response regarding CEQA compliance is not possible. Please note however, that the County will consider all comments and suggestions during the decision making process. No change to the EIR is deemed necessary.

Response 5.7

The commenter recommends a modification to the Noise Element of the 2035 General Plan. This comment relates to the 2035 General Plan and does not identify an inadequacy in the analysis, conclusions, or mitigation measures of the EIR; therefore, a detailed response regarding CEQA compliance is not possible. Please note however, that the County will consider all comments and suggestions during the decision making process. No change to the EIR is deemed necessary.

Response 5.8

The commenter recommends that Figure 2-6 be modified to "Proposed F-18 Noise Contours for NAS Lemoore".

In response to this comment, the title of Figure 2-6 in section 2 Project Description has been modified as follows:

> "Proposed F-18 Noise Contours for ~~Lemoore Naval Air Station~~ Naval Air Station Lemoore"

Response 5.9

The commenter recommends inclusion of a figure in Section 4.7 *Hazards and Hazardous Materials* that shows the NAS Lemoore's Military Influence Area.

In response to this comment, Figure 4.7-4 has been added to Section 4.7 *Hazards and Hazardous Materials* shows the NAS Lemoore's Military Influence Area.

Response 5.10

The commenter recommends a modification to the Land Use Element of the 2035 General Plan. This comment relates to the 2035 General Plan and does not identify an inadequacy in the analysis, conclusions, or mitigation measures of the EIR; therefore, a detailed response regarding CEQA compliance is not possible. Please note; however, that the County will consider all comments and suggestions during the decision making process. No change to the EIR is deemed necessary.

Response 5.11

The commenter recommends a modification to the Land Use Element of the 2035 General Plan. This comment relates to the 2035 General Plan and does not identify an inadequacy in the analysis, conclusions, or mitigation measures of the EIR; therefore, a detailed response regarding CEQA compliance is not possible. The 2035 General Plan includes policies that would preclude development in areas that are exposed to military aircraft or airport daily average noise levels greater than 60 decibels or would subject such development to mitigation measures, which would reduce potential impacts to a less than significant level. No change to the EIR is deemed necessary.

Response 5.12

The commenter recommends a modification to the Health and Safety Element of the 2035 General Plan. This comment relates to the 2035 General Plan and does not identify an inadequacy in the analysis, conclusions, or mitigation measures of the EIR; therefore, a detailed response regarding CEQA compliance is not possible. Please note however, that the County will consider all comments and suggestions during the decision making process. No change to the EIR is deemed necessary.

Response 5.13

The commenter recommends that the NAS Lemoore description is modified per the commenter's suggestion.

In response to this comment, the sixth paragraph on page 4.10-4 in Section 4.10 *Noise* has been modified as follows:

> ~~The NAS Lemoore is one of four Navy master jet bases in the United States, and is the home port for all active-duty, light-attack aircraft squadrons assigned to the Pacific Fleet~~. NAS Lemoore is the Navy's largest Master Jet Base and the only one located on the west coast. The station is located in the western sections of Kings and Fresno Counties. NAS Lemoore occupies 18,784 acres and controls an additional 10,020 acres in air space. From 2002-2006, aircraft operations at NAS Lemoore totaled an average of 210,000 operations per year. Its principal mission is to support the Strike-Fighter Wing of the U.S. Pacific Fleet. NAS Lemoore hosts fourteen operation Strike-Fighter squadrons, two Strike-Fighter Fleet Replacement squadrons and all four coast Carrier Air Wing Commanders and their staff.

These modifications do not change the conclusions of the EIR.

Response 5.14

The commenter recommends a modification to the Noise Element of the 2035 General Plan. This comment relates to the 2035 General Plan and does not identify an inadequacy in the analysis, conclusions, or mitigation measures of the EIR; therefore, a detailed response regarding CEQA compliance is not possible. The 2035 General Plan includes policies that would preclude development in areas that are exposed to military aircraft or airport daily average noise levels greater than 60 decibels or would subject such development to mitigation measures, which would reduce potential impacts to a less than significant level, as discussed in Response 5.4 above. No change to the EIR is deemed necessary.

Response 5.15

The commenter recommends a modification to the Noise Element of the 2035 General Plan. This comment relates to the 2035 General Plan and does not identify an inadequacy in the analysis, conclusions, or mitigation measures of the EIR; therefore, a detailed response regarding CEQA compliance is not possible. The 2035 General Plan includes policies that would preclude development in areas that are exposed to military aircraft or airport daily average noise levels greater than 60 decibels or would subject such development to mitigation measures, which would reduce potential impacts to a less than significant level, as discussed in Response 5.4 above. No change to the EIR is deemed necessary.

Response 5.16

The commenter recommends a modification to the Noise Element of the 2035 General Plan. This comment relates to the 2035 General Plan and does not identify an inadequacy in the analysis, conclusions, or mitigation measures of the EIR; therefore, a detailed response regarding CEQA compliance is not possible. The 2035 General Plan includes policies that would preclude development in areas that are exposed to military aircraft or airport daily

average noise levels greater than 60 decibels or would subject such development to mitigation measures, which would reduce potential impacts to a less than significant level, as discussed in Response 5.4 above. No change to the EIR is deemed necessary.

Letter 6

David Warner, Director of Permit Services
San Joaquin Valley Air Pollution Control District

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

August 21, 2009

RECEIVED
AUG 25 2009
KINGS COUNTY COMMUNITY
DEVELOPMENT AGENCY

Mr. Greg Gatzka, Deputy Director-Planning
Kings Co. Community Development Agency
Kings Co. Government Center, Bldg. 6
1400 W. Lacey Blvd.
Hanford, CA 93230

Project: 2035 Kings County General Plan Program EIR (SCH# 2008121020)
District Reference No: 20090418

Dear Mr. Gatzka:

The San Joaquin Valley Unified Air Pollution Control District (District) has reviewed the 2035 Kings County General Plan and Draft Environmental Impact Report (EIR). The District offers the following comments and recommendations for the Air Quality Element of the General Plan:

1. The General Plan includes the following discussions: (1) a description of local air quality conditions, attainment status, and state and federal air quality plans; (2) a summary of local, district, state, and federal policies, programs, and regulations to improve air quality; (3) a comprehensive set of goals, objectives and policies to improve air quality; and (4) feasible implementation measures (strategies) designed to achieve these goals. As such, the General Plan appears to fulfill the requirements of AB 170 (Reyes).

2. The General Plan contains policies and implementation programs requiring the County to accurately assess impacts on air quality using District resources and programs and to coordinate with the District to minimize air impacts from projects subject to CEQA review. The District appreciates the County's ongoing commitment to working with the District and appreciates the opportunity to aid the County in identifying and mitigating impacts on air quality through the CEQA review process. Policy A1.1.2 requires the County to consult with the District during CEQA review of discretionary projects having the potential for causing adverse air quality impacts. To aid the County in determining a project's potential impacts, the District recommends that CEQA referral documents submitted to the District include a

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project summary detailing, at a minimum, the land use designation, project size, and proximity to sensitive receptors and existing emission sources. CEQA referral documents should be submitted to the District's CEQA Division located at the District's Central Office. To minimize paper consumption and help expedite project review, the District recommends that CEQA referrals be submitted via e-mail at CEQA@valleyair.org.

3. AQ Objective A1.2 aims to educate the public on the impacts that personal choices have on the valley's air quality. The District agrees that education is a key component of improving air quality in the San Joaquin Valley. Policy A1.2.3 requires the County to work with the Kings County Office of Education and local school districts to provide students with information regarding air pollution and their responsibility in improving air quality. To assist school districts interested in adding air quality education to their curriculum the District has a school program available, including District speakers, student workbooks and teaching aids. The District has also developed an air quality flag program in which various colored flags serve as a visual communicator of daily air quality indicators and health descriptors of the Air Quality Index. For more information, please contact the District's Outreach and Communication Department staff by phone at (559) 230-6000 or e-mail at public.education@valleyair.org.

   Information on the District's school curriculum can be found on the District website at: http://www.valleyair.org/kids/KidsElemCurr.htm.

   Information on the District's flag program can be found on the District website at: http://www.valleyair.org/Programs/FlagProgram/AirQualityFlagProgram_Idx.htm.

4. Policy C1.1.7 and Policy C1.1.8 require the County to work with the District and project proponents to encourage participation in the District's ISR and VERA programs and identifying expenditure of Indirect Source Review (ISR) fees within the County. These two programs are designed to mitigate project impacts on air quality and play an important role in the District's strategies to achieve attainment for ozone and PM2.5. The District commends the County's in its recognition of the importance of these programs. The District appreciates the opportunity to work closely with the County's in implementing these programs.

   a. To reduce County staff time in responding to project proponent questions about the ISR and VERA programs, the District recommends that all requests for CEQA comments include proponent contact information. District receipt of the requested information will allow District staff to contact developers and assist them in understanding how to reduce project related impacts on air quality and how to complete the ISR application process.

   b. To reduce County staff time responding to inquiries regarding the District's permitting process and aid project proponents in complying with District

requirements (ISR, permitting, dust control, etc.) the District recommends that the County provide a copy of District comments to the applicant.

5. The General Plan contains policies to minimize exposure of the public to hazardous air pollutants. The District commends the County for its commitment to protecting the health of its citizens. Policy F1.1.2 requires new point sources producing toxic air contaminant to be located an adequate distance from residential areas and other sensitive receptors in accordance to ARB's Air Quality Land Use Handbook. While this is an effective measure to reduce potential risks, some sources may potentially have significant health risks impacts even if they are located at distances beyond those recommended by ARB. Accurate quantification of health risks and operational emissions requires detailed site specific information, e.g. type of emission source, proximity of the source to sensitive receptors, and trip generation information. The required level of detail is typically not available until project specific approvals are being granted.

   a. The District recommends the County include a policy requiring consultation with the District for any project that may have a health risk impact, including those projects that are exempt from CEQA requirements.

   b. Specific consideration should be given when approving projects that could expose sensitive receptors to toxic air contaminants (TACs). The District recommends that the County review all projects for potential health risks. If the City's preliminary analysis indicates that TACs are a concern the District recommends that prior to performing a health risk assessment, the City contact the District to determine appropriate modeling techniques.

   c. For more information on health risk modeling techniques, please contact Mr. Leland Villalvazo, Supervising Air Quality Specialist by phone at (559) 230-6000 or e-mail at hramodeler@valleyair.org. Additional information on TACs and modeling approaches can be found online at the District's website at http://www.valleyair. org/busind/pto/toxics.htm

6. AQ Objective F2.1 aims to reduce particulate matter emissions from sources with local control potential or under the County's jurisdiction. The District commends the County for its recognition of the importance of reducing particulate matter emissions and the role these reductions have in cleaning the valley's air. AQ Policy F2.1.1 targets the reduction of fugitive dust emissions from construction activities. While dust suppression is a key element to achieving attainment of federal PM2.5 standards and maintaining the federal PM10 attainment status, fugitive PM10 emissions are not the only construction emissions of concern. The District offers the following recommendations for including strategies to reduce construction related PM10 exhaust and NOx emissions:

   a. The District recommends the goal be expanded to include the reduction of construction exhaust emissions of NOx and Pm10.

b. The District recommends that demonstration of compliance with District Rule 9510 (Indirect Source Review), before issuance of the first building permit for each project phase including payment of all applicable fees, be made a condition of project approval. Information about how to comply with District Rule 9510 can be found on the District's website at: http://www.valleyair.org/ ISR/ISRHome.htm.

c. Feasible mitigation of construction exhaust emission includes use of construction equipment powered by engines meeting, at a minimum, Tier II emission standards, as set forth in §2423 of Title 13 of the California Code of Regulations, and Part 89 of Title 40 Code of Federal Regulations. The District recommends incorporating, as a condition of project approval, a requirement that off-road construction equipment used on site achieve fleet average emissions equal to or less than the Tier II emissions standard of 4.8 g/hp-hr NOx. This can be achieved through any combination of uncontrolled engines and engines complying with Tier II and above engine standards.

If you have any questions or require further information, please call Jessica Willis at (559) 230-5818.

Sincerely,

David Warner
Director of Permit Services

Jessica R. Willis

for Arnaud Marjollet
Permit Services Manager

DW:jw

Cc: File

Letter 6

COMMENTER: David Warner, San Joaquin Valley Air Pollution Control District

DATE: August 21, 2009

RESPONSE:

Response 6.1

The commenter confirms that the proposed 2035 General Plan fulfills the requirements of AB 170. No further response is necessary.

Response 6.2

The commenter recommends that CEQA documents submitted to the APCD include a project summary, land use designation, project size, and proximity to sensitive receptors and that those documents are submitted via email. This comment does not identify an inadequacy in the analysis, conclusions, or mitigation measures of the EIR. Please note however, that the County will consider all comments and suggestions during the decision making process. No change to the EIR is deemed necessary.

Response 6.3

The commenter agrees with Policy A1.2.3 of the 2035 General Plan. No change to the EIR is deemed necessary.

Response 6.4

The commenter recommends that all request for CEQA comments include proponent contact information. This comment does not identify an inadequacy in the analysis, conclusions, or mitigation measures of the EIR. Please note however, that the County will consider all comments and suggestions during the decision making process. No change to the EIR is deemed necessary.

Response 6.5

The commenter recommends a policy requiring consultation with the APCD for any project that may have a health risk impact, including those projects that are exempt from CEQA requirements. Please note that the 2035 General Plan policies listed under Impact AQ-2 in Section 4.3.2(b) *Air Quality* of the EIR require that development pursuant to the General Plan coordinate with the SJVAPCD to analyze and mitigate air quality impacts using methodologies and significance thresholds recommended by SJVAPCD. These General Plan policies are reiterated below:

> ***AQ Policy C1.1.1*** *Assess and mitigate project air quality impacts using analysis methods and significance thresholds recommended by the SJVAPCD.*

AQ Policy C1.1.3 *Ensure that air quality and climate change impacts identified during CEQA review are minimized and consistently and fairly mitigated at a minimum, to levels as required by CEQA.*

AQ Policy C1.1.6 *Encourage and support the development of innovative and effective mitigation measures and programs to reduce air quality and climate change impacts through proactive coordination with the SJVAPCD, project applicants, and other knowledgeable and interested parties.*

AQ Policy F2.1.1 *Coordinate with the SJVAPCD to ensure that construction, grading, excavation and demolition activities within County's jurisdiction are regulated and controlled to reduce particulate emissions to the maximum extent feasible.*

No change to the EIR is deemed necessary.

Response 6.6

The commenter recommends that AQ Policy F2.1.1 be expanded to include the reduction of construction exhaust emissions from NO_x and PM_{10}. The commenter recommends that future projects under the 2035 General Plan demonstrate compliance with District Rule 9510 prior to issuance of a building permit. The commenter recommends a requirement that off-road construction equipment used on-site achieve a fleet average of 4.8g/hp-hr NO_x. The County intends to comply with all pertinent APCD permitting requirements in place at the time of development review. As noted above in Response 6.5, the 2035 General Plan includes policies that would require development to coordinate with the SJVAPCD to analyze and mitigate air quality impacts using methodologies and significance thresholds recommended by SJVAPCD. No change to the EIR is deemed necessary.

Letter 7

David Warner, Director of Permit Services
San Joaquin Valley Air Pollution Control District

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

August 26, 2009

RECEIVED
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KINGS COUNTY COMMUNITY
DEVELOPMENT AGENCY

Mr. Greg Gatzka, Deputy Director-Planning
Kings Co. Community Development Agency
Kings Co. Government Center, Bldg. 6
1400 W. Lacey Blvd.
Hanford, CA 93230

Project: 2035 Kings County General Plan Program EIR (SCH# 2008121020)
District Reference No: 20090418

Dear Mr. Gatzka:

The San Joaquin Valley Unified Air Pollution Control District (District) appreciates the County's extension to the comment period for this project. As the District has previously commented on the Air Quality Element portion of the 2035 Kings County General Plan, the following comments are offered on only the Draft Environmental Impact Report (EIR) portion of the document.

1. Impact AQ-1: The EIR concludes that without mitigation development under the 2035 General Plan would result in an increase in air emissions, but because the maximum buildout allowed under the General Plan has been accounted for in the regional air quality management plan these emissions would have a Class III, less than significant, impact on air quality. For the reasons presented below, the District does not agree with this conclusion.

   a. The conclusion combines two issues, (1) conformity with applicable air quality plans and (2) significance of project related emissions. Regarding the conformity issue, the District reviewed the General Plan and agrees that the projected growth allowed under the General Plan has been included in the District's ozone and particulate matter attainment plans and, therefore, conforms to the State Implementation Plan (SIP). Regarding the issue of significance of air impacts, the District reviewed the quantification of the project related emissions. Table 2-8 indicates the potential growth under the 2035 General Plan would be: 4,800 dwelling units; 1,779,376 square feet of commercial space; and 4,483,115 square feet of industrial space. The project analysis presented in Appendix B

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indicates that emissions generated by this growth exceed 380 tons ROG per year, 750 tons NOx per year, and 290 tons PM10 per year. Although anticipated growth and the associated emissions have been addressed in the SIP, these emissions will exceed the District's thresholds of significance (10 tons per year for ROG and NOx and 15 tons per year of PM10). Therefore, it is not appropriate to conclude that impacts from the buildout of the General Plan will have a less than significant impact on air quality.

b. CEQA Guideline §15168(b)(2) states that one of the advantages of a program EIR is that it ensures consideration of cumulative impacts that might not be addressed in project specific analyses. CEQA Guideline §15168(d)(2) allows the use of program EIRs to simplify the analysis of later development within the program through the incorporation by reference to deal with impacts that apply to the entire program, such as those from regional influences and cumulative impacts. CEQA Guideline §15130 identifies requirements for the discussion of a project's cumulative impacts. The General Plan is a program level EIR and as such, should adequately discuss all impacts, including cumulative air impacts. As the General Plan is a program level EIR and emissions at full buildout exceed the District's thresholds, the General Plan would be considered to have a cumulatively significant impact on air quality. The General Plan contains many policies to reduce and mitigate project related impacts. As such, the District recommends the EIR be amended to reflect that even with the incorporation of mitigation measures presented in the General Plan the project's impacts would be considered cumulatively significant.

2. Impact AQ-2: The EIR concludes that the development of individual projects would generate construction emissions that may have temporary adverse impacts, but these impacts can be mitigated at the project level and impacts would be less than significant without mitigation. The District does not agree with this conclusion. The General Plan is a program level project and includes policies to reduce and mitigate impacts construction at the individual project level. The General Plan, however, does not include a policy requiring all projects to mitigate construction impacts to a level below District thresholds (Policy C1.1.7 and Policy C1.1.8 only require the County's encouragement of participation in the District's ISR and VERA programs). Therefore, construction emissions from the buildout of the General Plan would be considered to have a cumulatively significant impact on air quality. The District recommends the EIR be amended to reflect that, even with the incorporation of mitigation measures presented in the General Plan, emissions resulting from construction activities would be considered to have a cumulatively significant impact.

If you have any questions or require further information, please call Jessica Willis at (559) 230-5818.

Sincerely,

David Warner
Director of Permit Services

Jessica R. Willis

for Arnaud Marjollet
Permit Services Manager

DW:jw

Cc: File

Letter 7

COMMENTER: David Warner, San Joaquin Valley Air Pollution Control District APCD

DATE: August 26, 2009

RESPONSE:

Response 7.1

The commenter states that the San Joaquin Valley Air Pollution Control District (SJVAPCD) agrees with the EIR's conclusion that the projected growth allowed under the General Plan update is included in the District's ozone and particulate matter attainment plans. In addition, the commenter states that emissions associated with buildout of the General Plan (presented in Appendix B of the EIR) exceed the District's thresholds of significance. The EIR is programmatic in nature, and the District's thresholds of significance are set at a level appropriate for project-level analysis. As discussed in Section 4.3.2(a) Air Quality page, 4.3-10;

> *The SJVAPCD has adopted numeric significance thresholds for individual development projects. However, use of these thresholds would not be appropriate for a General Plan since they are intended for use in evaluating the effects of individual projects while the General Plan EIR considers the cumulative effect of all individual projects within the County. Therefore, the criteria used to determine the significance of impacts are taken from the checklist contained in Appendix G of the State CEQA Guidelines.*

The General Plan update includes AQ Policies C1.1.1, C1.1.3, and C1.1.6, which require development pursuant to the General Plan to analyze and mitigate air quality impacts using methodologies and significance thresholds recommended by SJVAPCD. Applicants for projects under the General Plan would be required to conduct quantitative analysis of construction emissions through CEQA review, and, where applicable, to mitigate construction emissions below SJVAPCD thresholds. In addition to the these policies, policies contained in the General Plan update implement mitigation strategies recommended by SJVAPCD for General Plan updates . These include:

- Adopt air quality element/general plan air quality policies/specific plan policies (implemented by AQ Policies C1.1.1, C1.1.3, and C1.1.6);
- Adopt Local Air Quality Mitigation Fee Program (implemented by General Plan AQ Policy C1.1.7);
- Fund TCM program: transit, bicycle, pedestrian, traffic flow improvements, transportation system management, rideshare, telecommuting, video-conferencing, etc. (implemented by AQ Policies B1.1.1, D1.1.1, D1.1.2, and D2.1.1);
- Adopt air quality enhancing design guidelines/standards (implemented by General Plan AQ Policy A1.1.3);
- Designate pedestrian/transit oriented development areas on general plan/specific plan/ planned development land use maps (implemented by General Plan AQ Policy D2.1.2); and

- Energy efficiency incentive programs (implemented by General Plan AQ Policies E1.1.1, E1.1.2, and E1.1.3).

Therefore, because the projected growth allowed under the General Plan update is included in the District's ozone and particulate matter attainment plans, and because the General Plan update includes policies which subject subsequent development to SJVAPCD standards and thresholds, as well as additional policies which implement SJVAPCD recommended mitigation strategies, impacts related to long-term emissions were determined to be less than significant. No changes to the EIR are deemed necessary.

Response 7.2

The commenter notes that the General Plan EIR is a programmatic EIR, and is required to discuss the cumulative impacts of the General Plan update. The commenter also states that emissions from the General Plan area at full buildout exceed the District's thresholds, and requests that the EIR be amended to reflect the project's impacts and be considered cumulatively significant. However, analysis of a General Plan at full buildout is cumulative by nature as it represents the maximum level of development that could occur. As noted above in Response 7.1, the projected growth allowed under the General Plan update is included in the District's ozone and particulate matter attainment plans, and the General Plan update includes policies which subject subsequent development to SJVAPCD standards and thresholds, as well as additional policies which implement SJVAPCD recommended mitigation strategies. In addition, the General Plan update includes the following policies to address the cumulative impacts of development under the General Plan:

AQ Policy C1.1.4 *Identify and maintain an on-going inventory of the cumulative transportation, air quality, and climate change impacts of all general plan amendments approved during each year.*

AQ Policy C1.1.5 *Assess and reduce the air quality and potential climate change impacts of new development projects that may be insignificant by themselves but, taken together, may be cumulatively significant for the County as a whole.*

Therefore, because the analysis of the General Plan is cumulative by nature, and because the General Plan update is consistent with the District's ozone and particulate matter attainment plans, and the General Plan update includes policies intended to address the cumulative impacts of development under the General Plan, impacts related to cumulative emissions were determined to be less than significant. No changes to the EIR are deemed necessary.

Response 7.3

The commenter states that the SJVAPCD disagrees with the EIR's assessment of the significance of air quality construction emissions. The commentor recommends that construction emission impacts be considered cumulatively significant based on the opinion that the General Plan "does not include a policy requiring all projects to mitigate construction impacts to a level below District thresholds." However, General Plan policies

C1.1.1, C1.1.3, C1.1.6, and F2.1.1, listed under Impact AQ-2 in Section 4.3.2(b) *Air Quality* of the EIR require that development pursuant to the General Plan coordinate with the SJVAPCD to analyze and mitigate air quality impacts using methodologies and significance thresholds recommended by SJVAPCD. These General Plan policies are reiterated below:

AQ Policy C1.1.1	*Assess and mitigate project air quality impacts using analysis methods and significance thresholds recommended by the SJVAPCD.*
AQ Policy C1.1.3	*Ensure that air quality and climate change impacts identified during CEQA review are minimized and consistently and fairly mitigated at a minimum, to levels as required by CEQA.*
AQ Policy C1.1.6	*Encourage and support the development of innovative and effective mitigation measures and programs to reduce air quality and climate change impacts through proactive coordination with the SJVAPCD, project applicants, and other knowledgeable and interested parties.*
AQ Policy F2.1.1	*Coordinate with the SJVAPCD to ensure that construction, grading, excavation and demolition activities within County's jurisdiction are regulated and controlled to reduce particulate emissions to the maximum extent feasible.*

The General Plan EIR is programmatic in nature and considers the cumulative effect of all individual projects developed under the updated General Plan, including construction and operational impacts. Therefore, with the inclusion of policies that require all projects to comply with SJVAPCD thresholds and requirements, cumulative air quality impacts from construction under the updated General Plan would be less than significant. No changes to the EIR are deemed necessary.

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Persons Contacted

Cooke, Raymond. Kings County Department of Health Services, March 11 and 12, 2009

Granger, Kelly. Armona Community Services District, March 12, 2009

Johnson, Lee. Environmental Health Officer IV, Kings County Environmental Health Services Division

Putnam, Commander Dave. Kings County Sheriffs Department, March 5, 2009

Skaggs, Brian. Kettleman City Community Services District, March 9, 2009

Virden, Mike. Kings County Fire Department, February 23, 2009

5 – Notice of Availability of Final PEIR

KINGS COUNTY
COMMUNITY DEVELOPMENT AGENCY
Greg Gatzka, Director

PLANNING DIVISION

Web Site: http://www.countyofkings.com/planning/index.html

NOTICE OF AVAILABILITY
NOTICE OF PUBLIC HEARING

The following Notice of Availability/Notice of Public Hearing is provided by the Kings County Community Development Agency for the project described below.

Project Title:

2035 Kings County General Plan and the associated Final Program Environmental Impact Report

State Clearinghouse Number: SCH # 2008121020

Project Location:

All land within Kings County under County jurisdiction.

Project Description:

State law (Government Code Section 65300) requires that each city and county adopt a comprehensive general plan. This project fulfills this requirement by updating the County's existing General Plan. The General Plan defines the framework by which the County's physical and economic resources are to be managed and used in the future through the year 2035. The General Plan Update changes, clarifies and articulates the County's intentions with respect to the rights and expectations of the various communities, including residents, property owners, and businesses. Through the General Plan, the County informs these groups of its goals, policies, and standards, thereby communicating expectations of the public and private sectors for meeting community objectives. The General Plan Update includes revisions to the Land Use Element, Resource Conservation Element, Open Space Element, Circulation Element, Health and Safety Element, and the Noise Element. The General Plan Update also includes the provision for a new Air Quality Element and four community plans for the communities of Armona, Home Garden, Kettleman City, and Stratford.

The Final Program Environmental Impact Report (Final Program EIR) is an informational document for the use in the County's review and consideration of the General Plan Update. It is used to facilitate the creation of the General Plan which incorporates environmental considerations and planning principles into a cohesive policy document. The General Plan will guide subsequent actions

taken by the County in its review of new development projects and its establishment of new and/or revised countywide programs.

The Final Program EIR discloses the possible environmental consequences associated with the General Plan Update. The information and analysis in the Final Program EIR will be used by the Kings County Planning Commission and Board of Supervisors, responsible and trustee agencies, and the general public.

Addresses Where Copies of the Final PEIR Are Available:

The 2035 Kings County General Plan and associated Final Program EIR is available for review at the following locations:

- Kings County Community Development Agency
  1400 West Lacey Boulevard
  Government Center, Building No. 6
  Hanford, California

- Kings County Library Branches
  401 North Douty Street
  Hanford, California

NOTICE IS HEREBY GIVEN that the Kings County Planning Commission will hold a public hearing concerning the above mentioned project. A Final Environmental Impact Report has been prepared for this project, copies of which are available at the Kings County Community Development Agency at the address below. The Planning Commission will consider the Final Program EIR before any action is taken.

The Planning Commission public hearing will begin at 7 p.m. on November 2, 2009, at the Kings County Government Complex in the Board of Supervisors Chambers, located at 1400 W. Lacey Blvd., Building 1, Hanford, California.

Anyone who may be interested in this proposal, or the Final Program EIR, is invited to appear and present his or her comments, evidence, or make statements of fact regarding said proposal. The proposal files and Final Program EIR may be examined at the Kings County Planning Agency, Building No. 6, Kings County Government Center, 1400 W. Lacey Blvd., Hanford, California. For more information please call Mr. Jeremy Kinney, of the Kings County Planning Agency, at (559) 582-3211 extension 2673.

KINGS COUNTY PLANNING COMMISSION

/s/ Greg Gatzka

Gregory R. Gatzka, Secretary

Publish and Mail: October 23, 2009

Appendix A

2035 Kings County General Plan Update

Program
Environmental Impact Report

Mitigation and Reporting Program

Mitigation Measure	**Action Required**	**When Monitoring to Occur**	**Monitoring Frequency**	**Responsible Agency or Party**	**Compliance Verification**		
					Initial	**Date**	**Comments**
AESTHETICS							
AES-1 Policy LU D1.3.4: Minimize Light and Glare. Preserve the existing nighttime environment by limiting the illumination of areas surrounding new development. New lighting that is part of residential, commercial, industrial, or recreational development shall be oriented away from sensitive uses, and should be hooded, shielded, and located to direct light pools downward and prevent glare.	Verify that the policy has been added to the General Plan.	Prior to General Plan approval	Once	Community Development			
AIR QUALITY							
AQ-4 Mixed Use Restrictions. Mixed use development that includes residential uses shall not include photographic studios, laundry facilities, or other types of development that could generate odors, such as the sales of agricultural products, fast food establishments, photographic studios, and laundry facilities. This language shall be added to the definition for the Downtown Mixed Use and Mixed Use land use designations, as part of the final 2035 General Plan Land Use Element.	Verify that the language has been added to the definition for the Downtown Mixed Use and Mixed Use land use designations in the General Plan Land Use Element.	Prior to General Plan approval	Once	Community Development			
BIOLOGICAL RESOURCES							
BIO-2(a) Proposed Policy. The following policy shall be included in the *2035 Kings County General Plan:*	Verify that the policy has been added to the	Prior to General Plan approval	Once	Community Development			

Mitigation Measure	Action Required	When Monitoring to Occur	Monitoring Frequency	Responsible Agency or Party	Compliance Verification		
					Initial	Date	Comments
RC Policy D3.1.6: *Evaluate Fish and Game approved conservation plans and wildlife corridor studies prepared by government or private non-profit biological resource entities that analyze Kings County's wildlife and riparian habitat, and where feasible, accommodate implementation of wildlife corridor plans.*	General Plan.						
BIO-2(b) Proposed Implementation Program. The following implementation program shall be included in the *2035 Kings County General Plan:* ***G. Resource Conservation Program 7.*** *Establish a Wildlife Movement Corridor Overlay over all lands designated as "Natural Resource Conservation," or where feasible, on land identified as a wildlife corridor by a Fish and Game approved regional wildlife corridor plan.*	Verify that the implementation program has been added to the General Plan.	Prior to General Plan approval	Once	Community Development			
BIO-4(a) Policy Revisions. The following policies shall be revised to protect special status plant and animal species: ***ACP Policy 8E.1.3:*** *New development located on undisturbed land within the fringe area of the Armona Community Planning Area shall be required to provide a pre-construction biological survey to determine the presence of any rare or endangered species within the project area if the*	Verify that the policies have been revised in the General Plan.	Prior to General Plan approval	Once	Community Development			

Mitigation Measure	Action Required	When Monitoring to Occur	Monitoring Frequency	Responsible Agency or Party	Compliance Verification		
					Initial	Date	Comments
land falls within or is adjacent to quad maps with known special status species or sensitive habitats as determined by a review of the county's Sensitive Resources Maps and Sensitive Resources Lists. Land continuously cultivated since 1985, or before, will not be considered wetlands or sensitive species habitat. If Federal or State listed rare or endangered species are identified and observed, the local lead agency and any other responsible state or federal agency shall be notified immediately. ***SCP Policy 8E.1.2:*** *New development located on undisturbed land within the fringe area of the Stratford Community Planning Area shall be required to provide a pre-construction biological survey to determine the presence of any rare or endangered species within the project area if the land falls within or is adjacent to quad maps with known special status species or sensitive habitats as determined by a review of the county's Sensitive Resources Maps and Sensitive Resources Lists. Land continuously cultivated since 1985, or before, will not be considered wetlands or sensitive species habitat.. If Federal or State listed rare or endangered species are identified and observed, the local lead agency and any other responsible state or federal agency shall be notified immediately.*							

Mitigation Measure	**Action Required**	**When Monitoring to Occur**	**Monitoring Frequency**	**Responsible Agency or Party**	**Compliance Verification**		
					Initial	**Date**	**Comments**
HYDROLOGY AND WATER QUALITY							
H-1(a) Low Impact Development (LID). Future development pursuant to the 2035 General Plan shall incorporate LID principals into the project design to minimize long-term stormwater runoff. Such principles shall include: • *Permeable paving, such as pavers, porous concrete, or pathway comprised of decomposed granite that is effective in stormwater infiltration to help prevent excess runoff.* • *Use of "urban bio-swales" to redirect stormwater into planter strips, rather than capturing runoff in pipes and diverting it to a remote location.* • *Use of water efficient irrigation (e.g., drip irrigation system) to water trees, shrub beds, and areas of groundcover to eliminate evaporation losses and minimize runoff.* • *Use of predominately (75 percent) native plants and drought-tolerant landscaping wherever possible.*	Verify that the development standard policy has been added to the General Plan.	Prior to General Plan approval	Once	Community Development			
TRANSPORTATION AND CIRCULATION							

Mitigation Measure	**Action Required**	**When Monitoring to Occur**	**Monitoring Frequency**	**Responsible Agency or Party**	**Compliance Verification**		
					Initial	**Date**	**Comments**
TC-1(a) Roadway Improvement Funding. Kings County shall coordinate with the cities of Hanford, Lemoore, and Corcoran, as well as KCAG and Caltrans, to secure funding for the widening projects called for in the 2007 RTP. Specifically, Kings County should request KCAG set aside STIP funding for construction of the necessary roadway widening projects.	Verify that the funding requirement has been added to the General Plan.	Prior to General Plan approval	Once	Community Development			

Appendix B

2035 Kings County General Plan Update

Draft

Program Environmental Impact Report

A copy of the Draft PEIR is available for review at the Kings County Community Development Agency Located at:

Kings County Government Center
1400 W. Lacey Blvd, Building 6
Hanford, CA 93230

County of Kings

2035 General Plan Update

Environmental Impact Report

SCH #2008121020

June 2009

rincon

Environmental Scientists Planners Engineers

2035 Kings County General Plan Update

Draft
Environmental Impact Report

Prepared for:

County of Kings
Kings County Government Center
1400 West Lacey Boulevard
Hanford, CA 93230

Prepared by:

Rincon Consultants, Inc.
1530 Monterey Street, Suite D
San Luis Obispo, CA 93401

June 2009

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EXECUTIVE SUMMARY

This section summarizes the characteristics of the draft 2035 Kings County General Plan, project alternatives, and the project's environmental impacts.

PROJECT SYNOPSIS

Project Proponent

County of Kings
1400 West Lacey Boulevard
Hanford, CA 93230

General Plan Synopsis

The "proposed project" is a comprehensive update of the County of Kings General Plan (hereinafter "General Plan Update" or "draft General Plan" or "2035 General Plan"). The General Plan Update encompasses revisions to the existing Land Use, Resource Conservation, Open Space, Circulation, Health & Safety, Noise Elements, and the provision of a new Air Quality Element that addresses Greenhouse Gas issues. The General Plan Update process also includes four new Community Plans for the communities of Armona, Home Garden, Kettleman City and Stratford. The Housing Element is being updated on its own schedule as defined by State Law. The optional Dairy Element with its own EIR is not included in this update. The General Plan Update includes goals, objectives, and policies that will guide the development of Kings County through the year 2035. The General Plan is the fundamental land use policy document of the County of Kings. The County's existing *1993 Kings County General Plan* and its fifteen subsequent amendments were developed in accordance with the provisions of state law in effect at the time.

The following key themes frame the 2035 General Plan:

- ***Environmental Responsibility*** *– preservation/enhancement of natural resources and living within the limits imposed by available resources*
- ***Community Character*** *– protection of Kings County's special character*
- ***Quality of Life*** *– maintaining an outstanding quality of life for Kings County residents*

The existing *1993 Kings County General Plan* was adopted on December 28, 1993. Since then, it has been amended fifteen times between 1993 and 2004, and included a new optional Dairy Element adopted on July 30, 2002, and a 2003 Housing Element adopted on January 27, 2004. The *2035 Kings County General Plan* is a comprehensive effort to update the existing 1993 General Plan and respond to current local and regional conditions, as well as changes in state law that may not have been in place when the County's General Plan was last updated.

As part of the general plan update process, the County also developed four community plans to address growth and restraint issues in the County's four unincorporated communities which serve as the most likely areas for County unincorporated urban growth accommodation.

State law (Government Code Section 65300) requires that each city and county adopt a comprehensive general plan. The proposed project fulfills this requirement by updating the County's existing General Plan. The General Plan defines the framework by which the County's physical and economic resources are to be managed and used in the future. The General Plan's planning horizon is the year 2035. The objectives of the General Plan Update include:

- Promote and continue to concentrate residential, commercial and industrial growth within the Community Plan areas of Armona, Home Garden, Kettleman City and Stratford, and the incorporated cities;
- Establish mixed uses in the Community Plan areas to create definable downtown cores that promote pedestrian usage and economic vibrancy;
- Provide traffic circulation routes and public transportation that meet the needs of County residents through the year 2035 and reduce overall vehicle miles traveled;
- Protect County residents from exposure to excessive noise levels;
- Reduce or eliminate long term risk to people and property from natural or man made hazards;
- Protect water, agriculture, prime soils, natural lands, native plant & animal habitat, threatened & endangered species, fishing, energy, mineral, and archaeological, cultural and historical resources throughout the County;
- Establish open spaces throughout the County that promote the preservation of agriculture, scenic resources and outdoor recreation areas, and provide land use separation buffers; and
- Improve air quality throughout the County and the San Joaquin Valley, and reduce impacts associated with greenhouse gases and climate change.

The General Plan Update clarifies and articulates the County's intentions with respect to the rights and expectations of the various communities, including residents, property owners, and businesses. Through the General Plan, the County informs these groups of its goals, policies, and standards, thereby communicating expectations of the public and private sectors for meeting community objectives.

Since the General Plan and Community Plans are the constitution for all future development, any decision by a county affecting land use and development must be consistent with the respective plan. This includes any development projects proposed in the future. An action, program, or project would be considered consistent with the General Plan if, considering all of its aspects, it will further the objectives and policies of the General Plan or not obstruct their attainment.

The General Plan Update includes revisions to the following elements:

- Land Use Element
- Resource Conservation Element
- Open Space Element
- Circulation Element
- Health & Safety Element
- Noise Element

The General Plan Update includes provision of the following new element:

- Air Quality Element

The General Plan update also includes the following four new Community Plans:

- Armona Community Plan
- Home Garden Community Plan
- Kettleman City Community Plan
- Stratford Community Plan

SCOPE AND CONTENT OF THE EIR

The following issues are evaluated in the Draft EIR:

- *Aesthetics*
- *Agriculture Resources*
- *Air Quality*
- *Biological Resources*
- *Cultural Resources*
- *Geology/Soils*
- *Hazards & Hazardous Materials*
- *Hydrology/Water Quality*
- *Land Use/Planning*
- *Noise*
- *Population/Housing*
- *Public Services*
- *Recreation*
- *Transportation/Traffic*
- *Utilities/Service Systems*

ALTERNATIVES

As required by CEQA, this section evaluates a range of alternatives to the proposed project. Alternatives analyzed in Section 6.0 include the following:

- *No Project (No Further Development)*
- *No Project (1993 General Plan Buildout)*
- *Reduced Project*
- *Dispersed Non-District Growth*

Each of the alternatives discussed in Section 6.0 has certain advantages and disadvantages as compared to the draft 2035 General Plan, as summarized below.

- *The **No Project (no further development)** alternative could be considered environmentally superior because it would result in no increase in traffic, air pollution or noise, and no increase in demand for utilities or services. It would result in no physical impacts. On the other hand, this alternative would not meet state directives, regional planning objectives, and many of the 2035 General Plan objectives, including promoting and concentrating residential, commercial and industrial growth within the Community Plan areas of Armona, Home Garden, Kettleman City and Stratford; establishing mixed uses in the Community Plan areas to create definable downtown cores that promote pedestrian usage and economic vibrancy; providing traffic circulation routes and public transportation that meet the needs of County residents through the year 2035 and reduce overall vehicle miles traveled; and establishing open spaces throughout the County that promote the preservation of agriculture*

and scenic resources and provide community and safety separation buffers; and improving air quality throughout the County and reducing impacts associated with greenhouse gases and climate change. This alternative is unlikely to occur.

- *The **No Project (1993 General Plan)** alternative would allow slightly less development to occur as compared to the 2035 General Plan. Since this alternative does not include increased residential, commercial and industrial development potential, it could reduce potential traffic impacts and air quality impacts, but not to an insignificant level. On the other hand, it could have somewhat greater impacts to "natural" areas since it includes less overall open space and natural resource conservation acreage. This alternative does not meet mandated state requirements or regional planning objectives and would also conflict with future LAFCo project conditions. It also does not meet several project objectives, including promoting and concentrating residential, commercial and industrial growth within the Community Plan areas of Armona, Home Garden, Kettleman City and Stratford; establishing mixed uses in the Community Plan areas to create definable downtown cores that promote pedestrian usage and economic vibrancy; providing traffic circulation routes and public transportation that meet the needs of County residents through the year 2035 and reduce overall vehicle miles traveled; and establishing open spaces throughout the County that promote the preservation of agriculture and scenic resources and provide community and safety separation buffers; and improve air quality throughout the County and reducing impacts associated with greenhouse gases and climate change.*
- *The **Reduced Project** alternative could incrementally reduce impacts by approximately 30 percent. Impacts under this alternative would generally be less than that of the proposed 2035 General Plan. This alternative would achieve many of the project objectives; however, because residential, commercial and industrial development would be reduced by 30 percent, it would not meet the following project objectives to the same extent as the proposed project: promote and concentrate residential, commercial and industrial growth within the Community Plan areas of Armona, Home Garden, Kettleman City and Stratford; and establish mixed uses in the Community Plan areas to create definable downtown cores that promote pedestrian usage and economic vibrancy;*
- *The **Dispersed Non-District Growth** alternative would still facilitate residential, commercial and industrial development similar to the proposed 2035 General Plan. Impacts may be greater as they relate to aesthetics, air quality, hydrology and water quality, transportation and circulation, and water supply and water and wastewater infrastructure. This alternative would not meet state directives, regional planning objectives, and many of the 2035 General Plan objectives, including promoting and concentrating residential, commercial and industrial growth within the Community Plan areas of Armona, Home Garden, Kettleman City and Stratford; establishing mixed uses in the Community Plan areas to create definable downtown cores that promote pedestrian usage and economic vibrancy; providing traffic circulation routes and public transportation that meet the needs of County residents through the year 2035 and reduce overall vehicle miles traveled; protecting County residents from exposure to excessive noise levels; reducing or eliminating long term risk to people and property from natural or man made hazards; and establishing open spaces throughout the County that promote the preservation of agriculture and scenic resources and provide community and safety separation buffers; and improve air quality throughout the County and reducing impacts associated with greenhouse gases and climate change.*

AREAS OF KNOWN CONTROVERSY

There are no areas of known widespread controversy with respect to the draft 2035 General Plan.

SUMMARY OF IMPACTS AND MITIGATION MEASURES

Table ES-1 includes a brief description of the environmental issues relative to the proposed project, the identified environmental impacts, proposed mitigation measures, and residual impacts. Impacts are categorized by classes. Class I impacts are defined as significant, unavoidable adverse impacts which require a statement of overriding considerations to be issued per Section 15093 of the *State CEQA Guidelines* if the project is approved. Class II impacts are significant adverse impacts that can be feasibly mitigated to less than significant levels and which require findings to be made under Section 15091 of the *State CEQA Guidelines*. Class III impacts are considered less than significant impacts, and Class IV impacts are beneficial or neutral.

Table ES-1. Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
AESTHETICS		
Impact AES-1 Development under the 2035 General Plan would not adversely affect a state scenic highway within Kings County, as there are currently no designated scenic highways in the County. Therefore, impacts would be Class IV, *no impact* or *beneficial*.	No significant impacts are identified, so no mitigation measures are required.	Impacts would be less than significant without mitigation.
Impact AES-2 The 2035 General Plan would emphasize reuse of existing urbanized lands, infill development on vacant parcels, and new development on urban fringe parcels, which would minimize changes in the existing visual character within the County. Additionally, 2035 General Plan policies would protect visual features and scenic resources. Therefore, impacts would be Class III, *less than significant*.	No significant impacts are identified, so no mitigation measures are required.	Impacts would be less than significant without mitigation, since the proposed General Plan includes a policy framework that would address potential visual impacts at a programmatic level.
Impact AES-3 Development that could be facilitated by the 2035 General Plan would introduce new sources of light and glare, which would increase overall ambient night-time light and daytime glare from building materials. Potential impacts to existing development would be Class II, *significant but mitigable*.	The following measure could be incorporated as a General Plan policy to reduce light and glare impacts to less than significant levels: **AES-1 Policy LU D1.3.4:** Minimize Light and Glare. Preserve the existing nighttime environment by limiting the illumination of areas surrounding new development. New lighting that is part of residential, commercial, industrial, or recreational development shall be oriented away from sensitive uses, and should be hooded, shielded, and located to direct light pools downward and prevent glare.	Implementation of the proposed policy would reduce potential impacts to a less than significant level.

Table ES-1. Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
AGRICULTURAL RESOURCES		
Impact AG-1 Future development in accordance with the 2035 General Plan could occur in areas that contain prime agriculture soils and/or Important Farmland. However, implementation of existing and proposed 2035 General Plan policies would reduce potential impacts to Class III, *less than significant*.	No significant impacts were identified, so no mitigation measures are required.	Impacts would be less than significant without mitigation.
Impact AG-2 Future development under the 2035 General Plan could conflict with Williamson Act Contracts on some properties. However, existing cancellation requirements under this program and adherence to proposed General Plan policies would reduce potential impacts to a Class III, *less than significant* level.	No significant impacts were identified.	Impacts would be less than significant without mitigation.
Impact AG-3 The 2035 General Plan would alter the present land use pattern in portions of the County and may result in incompatibilities where urban and agricultural uses would directly abut each other. However, the General Plan reduces land use conflicts through plan review and policies. Therefore, impacts that would occur from development would be Class III, *less than significant*.	No significant impacts were identified, so no mitigation measures are required.	Impacts would be less than significant without mitigation.
AIR QUALITY		
Impact AQ-1 Development facilitated by the 2035 General Plan would result in an increase in air pollutant emissions within the Kings County portion of the San Joaquin Valley Air Basin. Although maximum buildout of the General Plan could accommodate up to about 16,863 new residents, this growth is accounted for in the regional Air Quality Management Plan. In addition, policies contained in the 2035 General Plan aimed at limiting future growth in population, traffic, and energy consumption would be expected to limit emissions to levels consistent with regional forecasts. Impacts would therefore be Class III, l*ess than significant*.	Development accommodated by the 2035 General Plan would result in an incremental increase in emissions. However, individual development projects that could occur would be required to undergo CEQA review and would be subject to the SJVAPCD thresholds and policies contained in the draft General Plan to reduce air quality impacts. From a programmatic perspective, long-term development under the proposed General Plan is consistent with regional growth and AQMP forecasts, so program level impacts would be less than significant, particularly since the proposed General Plan includes policies applicable to individual development to address air pollution impacts. No mitigation measures beyond adherence to the proposed policies in the 2035 General Plan would be required.	Impacts would be less than significant without mitigation.
Impact AQ-2 Individual development projects facilitated by the 2035 General Plan would generate construction-related emissions. Such emissions may result in temporary adverse impacts to local air quality. However,	Additional mitigation beyond adherence to applicable proposed General Plan policies and SJVAPCD rules is not required.	Impacts would be less than significant without mitigation.

Table ES-1. Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
these emissions can be mitigated on a specific development basis and impacts would be Class III, *less than significant*.		
Impact AQ-3 The 2035 General Plan would facilitate residential development in proximity to high-volume local roadways, which would expose residents to elevated health risks. Impacts associated with placement of residential development near these highways would be Class III, *less than significant*.	Impacts would be less than significant; therefore, no mitigation is required.	Impacts would be less than significant without mitigation.
Impact AQ-4 The 2035 General Plan would facilitate construction of projects with the potential to cause nuisance odors. Impacts associated with objectionable odors would be Class II, *significant but mitigable*.	**AQ-4 Mixed Use Restrictions.** Mixed use development that includes residential uses shall not include photographic studios, laundry facilities, or other types of development that could generate odors, such as the sales of agricultural products, fast food establishments, photographic studios, and laundry facilities. This language shall be added to the definition for the Downtown Mixed Use and Mixed Use land use designations, as part of the final 2035 General Plan Land Use Element.	With implementation of the above mitigation measures, development under the 2035 General Plan would have less than significant odor nuisance impacts.
Impact AQ-5 Development facilitated by the 2035 General Plan would result in an increase in GHGs within the San Joaquin Valley Air Basin. Buildout of the 2035 General Plan would accommodate up to 16,863 new residents, and increase vehicle miles traveled by up to 1,203,461. New development associated with the General Plan would hinder the implementation of AB-32. Impacts would be Class II, *significant but mitigable.*	Additional mitigation beyond adherence to applicable proposed General Plan policies and SJVAPCD rules is not required.	Impacts would be less than significant without mitigation.
BIOLOGICAL RESOURCES		
Impact BIO-1 Development facilitated by the draft 2035 General Plan generally avoids direct impacts to riparian, wetland, and open water habitats. Nonetheless, development based on land uses designated under the General Plan could directly and indirectly affect the quality of riparian and wetland habitat. Impacts to riparian, wetland, and open water habitats under the 2035 General Plan would be Class I, *significant and unavoidable*.	Additional mitigation beyond adherence to applicable proposed General Plan policies is not required.	The proposed General Plan policies, would reduce potential impacts of General Plan buildout to riparian, wetland, and open water habitat. However, not all land uses and development are subject to discretionary review under the General Plan and subsequent CEQA documentation that would enable impacts to be reduced at the project level. These include land uses and development that are permitted by right

Table ES-1. Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
		and are not subject to any permit review process. They also include projects that are subject only to ministerial review. Further, the direct biological impacts of a particular project may be overridden by the Board of Supervisors for reasons unrelated to biological effects. Therefore, impacts to riparian, wetland, and open water habitat are considered significant and unavoidable.
Impact BIO-2 Development facilitated by the draft 2035 General Plan would largely avoid impacts to wildlife movement corridors by emphasizing intensification/reuse of existing urbanized areas. While several proposed General Plan policies require preservation of natural habitats and waterways, no policies specify the preservation of wildlife movement corridors. Therefore, impacts to wildlife movement under the 2035 General Plan would be Class I, *significant and unavoidable*.	The following mitigation measures are recommended to reduce impacts to wildlife movement in Kings County. **BIO-2(a) Proposed Policy.** The following policy shall be included in the *2035 Kings County General Plan:* ***RC Policy D3.1.6:*** *Evaluate Fish and Game approved conservation plans and wildlife corridor studies prepared by government or private non-profit biological resource entities that analyze Kings County's wildlife and riparian habitat, and where feasible, accommodate implementation of wildlife corridor plans.* **BIO-2(b) Proposed Implementation Program.** The following implementation program shall be included in the *2035 Kings County General Plan.* ***G. Resource Conservation Program 7.*** *Establish a Wildlife Movement Corridor Overlay over all lands designated as "Natural Resource Conservation," or where feasible, on land identified as a wildlife corridor by a Fish and Game approved regional wildlife corridor plan.*	Implementation of mitigation measures BIO-2(a) and BIO-2(b), in addition to the proposed General Plan policies would reduce impacts of General Plan buildout to wildlife movement corridors. However, the cumulative loss and degradation of habitat, fragmentation, and obstruction of movement opportunities would remain a significant unavoidable impact.
Impact BIO-3 Development facilitated by the draft 2035 General Plan would largely avoid impacts to sensitive habitats by emphasizing intensification/ reuse of already urbanized areas. However, development throughout the County outside of urbanized areas may result in impacts to sensitive habitats, as may cumulative population growth. These impacts under the 2035 General Plan would be Class I, *significant but mitigable*.	Mitigation measures BIO-2(a) and 2(b), are also applicable to this impact. No additional mitigation measures are available or recommended.	Implementation of mitigation measures BIO-2(a) and BIO-2(b), in addition to the proposed General Plan policies would reduce potential impacts of General Plan buildout to sensitive habitats to a less than significant level.

Table ES-1. Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
Impact BIO-4 Development facilitated by the draft 2035 General Plan would largely avoid impacts to special status plant and animal species by emphasizing intensification/reuse of already urbanized areas rather than developing on areas with native habitats. However, development throughout the County outside of these urbanized areas may result in impacts to special status plants and animals. These impacts under the 2035 General Plan would be Class I, *significant and unavoidable*.	The following mitigation measures are recommended to further reduce potential impacts. **BIO-4(a) Policy Revisions.** The following policies shall be revised to protect special status plant and animal species: ***ACP Policy 8E.1.3:*** *New development within the Armona Community Planning Area shall be required to provide a pre-construction biological survey to determine the presence of any rare or endangered species within the project area. If Federal or State listed rare or endangered species are identified and observed, the local lead agency and any other responsible state or federal agency shall be notified immediately.* ***SCP Policy 8E.1.2:*** *New development within the Armona Community Planning Area shall be required to provide a pre-construction biological survey to determine the presence of any rare or endangered species within the project area. If Federal or State listed rare or endangered species are identified and observed, the local lead agency and any other responsible state or federal agency shall be notified immediately.*	Implementation of mitigation measures BIO-2(a), BIO-2(b), and BIO-4(a), in addition to the proposed General Plan policies would reduce potential impacts of General Plan buildout to special status plant and animal species. Adoption of the relevant policies in the *Resource Conservation Element* and oversight by regulatory agencies entrusted with enforcement of state and federal regulations addressing the protection and management of special-status species, would serve to reduce potential adverse impacts on special-status species associated with the Draft 2035 General Plan. To the extent that the location of special-status species occurrences are known or discovered through the permit review process, the interaction of these policies and regulations may reduce local effects to a less than significant level. However, because not all occurrences of special-status species are known and some land uses are not regulated, the impact on special status species would be a significant unavoidable impact.
CULTURAL RESOURCES		
Impact CR-1 Development facilitated by the proposed 2035 General Plan could adversely impact identified and previously unidentified historic and archaeological resources. Because the General Plan would include policies to address this on a case-by-case basis, this is considered a Class III, *less than significant,* impact.	No significant impacts are identified.	Without any mitigation measures, program level impacts would be less than significant.

Table ES-1. Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
GEOLOGY		
Impact GEO-1 Future seismic events could produce ground shaking within Kings County area that could damage structures and/or create adverse health and safety effects. However, with the implementation of draft General Plan policies and required building codes, impacts would be Class III, *less than significant*.	No additional mitigation measures are required beyond compliance with applicable proposed General Plan policies and provisions of the CBC.	Impacts would be less than significant with implementation of the CBC requirements and polices contained in the Health and Safety Element.
Impact GEO-2 Future seismic events could result in liquefaction of soils in portions of the County area. Development in these areas could be subject to liquefaction hazards. However, the risk and danger of liquefaction and subsidence occurring within the County is considered to be minimal. With implementation of proposed General Plan policies and required building codes, impacts would be Class III, *less than significant*.	Compliance with the CBC and applicable policies of the Health and Safety Element, including Policy HS Policy A2.1.5, would ensure that impacts would be less than significant.	Impacts would be less than significant with implementation of the CBC requirements and polices contained in the *Health and Safety Element*.
Impact GEO-3 Kings County has very "Low" to "Moderate" risk landslide areas and a small portion of land that is rated to have "High" landslide incident probability. Landslides have the potential to damage and destroy structures, roadways and other improvements as well as to deflect and block drainage channels, causing further damage and erosion. Compliance with the CBC would generally address landslide hazards. However, because the draft General Plan does not include specific requirements to address landslide hazards, impacts would be Class II, *significant but mitigable*.	Compliance with the CBC and applicable policies of the Health and Safety Element, including Policy HS Policy A2.1.5 would ensure that impacts would be less than significant.	Impacts would be less than significant with implementation of the CBC requirements and polices contained in the *Health and Safety Element*.
Impact GEO-4 Expansive soil conditions could result in foundation and building distress problems and cracking of concrete slabs. However, implementation of draft General Plan policies would reduce impacts relating to soil expansion to a Class III, *less than significant*, level.	Compliance with the CBC and applicable policies of the Health and Safety Element, including Policy HS Policy A2.1.5 would ensure that impacts would be less than significant.	Impacts would be less than significant with implementation of the CBC requirements and polices contained in the *Health and Safety Element*.
Impact GEO-5 Radon is a contaminant that affects indoor air quality. Radon gas from natural sources can accumulate in buildings and reportedly is the second most frequent cause of lung cancer, after cigarette smoking. However, compliance with the CBC and applicable policies of the proposed Health and Safety Element would	Compliance with the CBC would ensure that impacts would be less than significant. Therefore, mitigation is not required.	Impacts related to radon gas would be less than significant level following compliance with the CBC.

Table ES-1. Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
ensure that impacts would be Class III, *less than significant*.		
HAZARDS AND HAZARDOUS MATERIALS		
Impact HAZ-1 Potential development that could be facilitated near known hazardous material users, construction in areas with existing hazardous materials, or accidental releases of hazardous materials during transportation could expose individuals to health risks due to soil/groundwater contamination or emission of hazardous materials into the air. This is a Class III, *less than significant* impact.	Compliance with federal, state, and local regulations, in combination with the General Plan policies listed above would mitigate potential health risk impacts to a level of less than significant.	Impacts would be less than significant without mitigation.
Impact HAZ-2 Development consistent with the proposed 2035 General Plan would introduce residential land uses into areas designated as Moderate or High Wildland Fire Hazard areas. However, compliance with General Plan policies and state and local regulations would ensure Class III, *less than significant,* impacts.	Compliance with the above policies and existing regulations would reduce the risk of injury or damage from wildland fires to a less than significant level. No mitigation is required.	Impacts would be less than significant without mitigation.
Impact HAZ-3 Public and private airports in Kings County could create safety hazards for nearby development. Careful land use planning in adherence with proposed General Plan policies and continued coordination with the Kings County Airport Land Use Compatibility Plan would ensure Class III, *less than significant* impacts.	Beyond compliance with existing and proposed General Plan policies, no mitigation measures are required.	Impacts would be less than significant without mitigation.
Impact HAZ-4 Potential development under the 2035 General Plan will not impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan. *No Impact* (Class IV) would result.	Beyond compliance with existing and proposed policies, no mitigation measures are required.	Impacts would be less than significant without mitigation.
HYDROLOGY AND WATER QUALITY		
Impact HWQ-1 A small portion of commercially designated land in the Stratford Community Plan area would be located within the 100-year flood zone. Limited residential development may also occur in agricultural designated land that is within the 100-year flood zone. However, with implementation of 2035 General Plan and Community Plan policies, impacts related to flooding would be Class III, *less than significant*.	None required beyond implementation of the existing regulatory framework and proposed General Plan policies.	Impacts would be less than significant without mitigation.

Table ES-1. Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
Impact HWQ-2 Portions of the County are located within an identified dam inundation hazard area associated with the Pine Flat Dam and the Terminus Dam. There is potential to expose people and structures to associated dam inundation hazards. However, the Hazard Mitigation Plan identified dam inundation as a low significance hazard. Therefore, impacts related to dam inundation would be Class III, *less than significant.*	None required, as no significant impacts were identified.	Impacts would be less than significant without mitigation.
Impact HWQ-3 Development facilitated by the 2035 General Plan would incrementally increase the amount of impervious surfaces within the County, resulting in an increase in watershed runoff and a decrease in percolation to the Tulare Lake Basin. Runoff could degrade water quality. Therefore, impacts would be Class II, *significant but mitigable.*	For future development within the County, compliance with an approved SWPPP would achieve compliance with applicable regulatory improvements. The following mitigation measure would provide minimum standards that ensure that temporary construction-related water quality impacts are reduced to a less than significant level: **H-1(a) Low Impact Development (LID)**. Future development pursuant to the 2035 General Plan shall incorporate LID principals into the project design to minimize long-term stormwater runoff. Such principles shall include: • *Permeable paving, such as pavers, porous concrete, or pathway comprised of decomposed granite that is effective in stormwater infiltration to help prevent excess runoff.* • *Use of "urban bio-swales" to redirect stormwater into planter strips, rather than capturing runoff in pipes and diverting it to a remote location.* • *Use of water efficient irrigation (e.g., drip irrigation system) to water trees, shrub beds, and areas of groundcover to eliminate evaporation losses and minimize runoff.* • *Use of predominately (75 percent) native plants and drought-tolerant landscaping wherever possible.*	Impacts would be less than significant following implementation of mitigation.
Impact HWQ-4 Point and non-point sources of contamination could affect water quality in the Kings River and groundwater in Tulare Lake Basin. However, compliance with existing regulations and implementation of 2035 General Plan policies would result in Class III, *less than significant,* impacts.	None required, as no significant impacts were identified	Impacts would be less than significant without mitigation.
LAND USE AND PLANNING		
Impact LU-1 No boundary adjustments are being considered as part of the proposed General Plan	No mitigation is required. Individual boundary adjustment proposals will need to be addressed by the County and LAFCo of Kings	As the County is not seeking any boundary adjustments at this time,

Table ES-1. Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
Update. However, annexation requests could be sought at some point in the future under the General Plan. Because any conflicts with LAFCo policies would need to be resolved prior to LAFCo approval of any boundary adjustment, impacts would be Class III, *less than significant*.	County on a case-by-case basis.	no inconsistencies with LAFCo policies would occur. Areas that may be considered for future annexation would not be eligible under current conditions; however, it is assumed that boundary adjustments would not be sought until such adjustments could be found to be consistent with state and local requirements.
Impact LU-2 The draft 2035 General Plan would be potentially consistent with the Kings County Association of Governments' RTP. Impacts would be Class III, *less than significant*.	The draft 2035 General Plan is potentially consistent with the KCAG 2007 RTP. No mitigation is required.	The draft 2035 General Plan is potentially consistent with the KCAG 2007 RTP. Impacts would be less than significant.
Impact LU-3 The 2035 General Plan would be potentially consistent with the Kings County Blueprint Vision. Impacts would be Class III, *less than significant*.	With implementation of 2035 General Plan policies, future development under the draft 2035 General Plan would be potentially consistent with the Kings County Blueprint Vision. No mitigation is required.	Future development under the draft 2035 General Plan would be potentially consistent with the Kings County Blueprint Vision. Impacts would be less than significant.
NOISE		
Impact N-1 New development facilitated by the 2035 General Plan could result in exposure of future residences and other noise-sensitive land uses to noise levels exceeding the "acceptable" range. However, implementation of noise attenuation features on new development, as required by draft General Plan policies, would reduce impacts to a Class III, *less than significant*, level.	The draft Noise Element goals and policies address the prevention and reduction of unwanted noise. Mitigation beyond the draft General Plan policies is not needed.	Impacts relating to the placement of new uses in noise environments exceeding the normally acceptable range would be less than significant without mitigation.
Impact N-2 Development facilitated by the 2035 General Plan would increase traffic and associated noise levels along area highways and roadways in Kings County, thereby exposing existing land uses to increased noise. With maximum development facilitated by the General Plan, 57 county roadways could experience noise level increases that exceed thresholds. However, implementation of draft General Plan policies would reduce impacts to a Class III, *less than significant*, level.	The draft Noise Element goals and policies address the prevention and reduction of unwanted noise. Mitigation beyond the draft General Plan policies is not needed.	Impacts relating to the placement of new uses in noise environments exceeding the normally acceptable range would be less than significant without mitigation.

Table ES-1. Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
Impact N-3 Construction of individual projects facilitated by the 2035 General Plan could produce noise levels ranging from 75 to 95 dBA at 50 feet from the source potentially affecting adjacent land uses. Such noise could cause temporary disturbance to nearby receptors, but draft 2035 General Plan policies would address potential impacts relating to construction. Therefore, this would be a Class III, *less than significant,* impact.	The proposed General Plan policies would address potentially-significant noise activity associated with development under the General Plan. No mitigation measures beyond implementation of the policies included in the draft General Plan Noise Element would be required.	Impacts relating to temporary construction activity would be less than significant without mitigation.
POPULATION AND HOUSING		
Impact PH-1 Implementation of the 2035 General Plan would not result in the displacement of substantial numbers of people or housing. To the contrary, the 2035 General Plan would facilitate the development of new housing in accordance with state and local housing requirements. Impacts would be Class III, *less than significant*.	No significant impacts were identified.	Impacts would be less than significant without mitigation.
Impact PH-2 Implementation of the 2035 General Plan would facilitate new residential and commercial development in unincorporated Kings County, which would accommodate an increase in the population of this area to approximately 52,174. This potential population increase would exceed current growth projections for unincorporated Kings County and may result in inconsistencies with the Regional Transportation Plan. However, the physical impacts of such growth have been analyzed and disclosed within this document. Additionally, any potentially inconsistent regional planning projections would ultimately be updated accordingly to be consistent with the 2035 General Plan. Therefore, impacts would be Class III, *less than significant*.	No significant impacts were identified.	Impacts would be less than significant without mitigation.
Impact PH-3 Development facilitated by the proposed 2035 General Plan would add both jobs and housing, which would affect the jobs/housing balance. Objectives and policies included in the General Plan encourage a mix of commercial and residential uses and districts. Therefore, impacts relating to jobs/housing balance are considered Class III, *less than significant*.	No significant impacts were identified, so no mitigation measures are required.	Impacts would be less than significant without mitigation.

Table ES-1. Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
PUBLIC SERVICES		
Impact PS-1 Development facilitated by the 2035 General Plan would increase demand for fire protection service; however, new or expanded facilities would not be required. Impacts would be Class III, *less than significant*.	No mitigation measures are required.	Impacts would be less than significant without mitigation.
Impact PS-2 Development facilitated by the 2035 General Plan would increase demand for law enforcement service, but would not result in the need to construct new law enforcement facilities. Impacts would be Class III, *less than significant*.	No significant impacts were identified, so no mitigation is required.	Impacts would be less than significant without mitigation.
Impact PS-3 Development that would be accommodated by the 2035 General Plan could increase student enrollment such that new or expanded school facilities are needed. However, the payment of State-mandated school impact fees is deemed full mitigation by the State of California. Therefore, impacts to schools would be Class III, *less than significant*.	No significant impacts were identified, so no mitigation measures are required.	Impacts would be less than significant without mitigation.
RECREATION		
Impact REC-1 Development facilitated by the 2035 General Plan would increase the County population and proportionate demand on parkland. Total available parkland would be adequate upon buildout of the 2035 General Plan, but individual community plan areas would not meet parkland standards for their respective community. However, development of proposed parks and payment of in-lieu fees would reduce potential impacts to Class III, *less than significant.*	No significant impacts were identified, so no mitigation measures are required.	Impacts would be less than significant without mitigation.
Impact REC-2 Through the year 2035, the County would develop six new park areas and recreational facilities. The implementation of these parks and recreation facilities could result in environmental impacts related to traffic, noise, and aesthetics on surrounding uses. From a programmatic perspective relative to the 2035 General Plan, this is considered a Class III, *less than significant*, impact.	No mitigation measures are required in addition to proposed General Plan and Community Plan policies. See policies listed under Impact REC-1.	Impacts would be less than significant.

Table ES-1. Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
TRANSPORTATION AND CIRCULATION		
Impact TC-1 Development facilitated by the 2035 General Plan would result in deficiencies to the local circulation system based on a threshold of LOS "D." Roadway improvements planned in the proposed 2035 General Plan, as well as the 2007 RTP are intended to address all projected deficiencies for roadway segments within the County. However, funding constraints may delay needed improvements, and some roadway segments may exceed the LOS "D" threshold until funding becomes available to make needed improvements. Therefore, impacts are Class II, *significant but mitigable*.	Implementation of the following mitigation measures would reduce impacts to a less than significant level. **TC-1(a) Roadway Improvement Funding.** Kings County shall coordinate with the cities of Hanford, Lemoore, and Corcoran, as well as KCAG and Caltrans, to secure funding for the widening projects called for in the 2007 RTP. Specifically, Kings County should request KCAG set aside STIP funding for construction of the necessary roadway widening projects. **TC-1(b) Impact Fees.** Kings County shall implement a regional traffic mitigation fee program to mitigate impacts to the County's regional road network. Additionally, the County shall coordinate with incorporated cities to implement local traffic improvement fee programs to offset the capital improvement costs required to accommodate new development.	Impacts at the two roadways segments along SR 198 – between Houston Avenue and 14th Avenue and 14th Avenue and Hanford-Armona Road – would be less than significant without mitigation with the implementation of policies in the proposed General Plan and *Armona Community Plan*. Impacts at the remaining four roadway segments projected to be deficient – SR 41 from Jackson Avenue to SR 198, SR 43 from Corcoran Bypass to Kansas Avenue, SR 43 from 10th Avenue to Excelsior Avenue, and SR 43 from Excelsior Avenue to the Fresno County Line – would be reduced to a less than significant level with the implementation of Mitigation Measures TC-1(a) and TC-1(b).
Impact TC-2 Buildout of the 2035 General Plan would incrementally increase traffic volumes at intersections associated with the interchange at State Route 198 and 13th Avenue. However, implementation of planned improvements and draft General Plan policies would reduce impacts to a Class III, *less than significant*, level.	None required.	Impacts would be less than significant without mitigation.
Impact TC-3 The 2035 General Plan would not accommodate design features that would create significant traffic hazards. While the potential development of new residential development along highly traveled thoroughfares may incrementally increase hazards for pedestrians, implementation of proposed policies relating to traffic calming and improving walkability would reduce such impacts to a Class III, *less than significant*, level.	None required.	Impacts would be less than significant without mitigation.

Table ES-1. Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
Impact TC-4 Buildout of the General Plan would incrementally increase use of available public transit resources. However, implementation of policies within the 2035 General Plan would also be expected to enhance the use of alternative transportation modes, including transit, bicycling, and walking. Overall, impacts relating to the need to provide alternative transportation are considered Class III, *less than significant*.	None required.	Impacts would be less than significant without mitigation.
Impact TC-5 Buildout of the 2035 General Plan and Community Plans would allow additional commercial, retail, and mixed-use development within Kings County, which would increase demand for parking in the downtown areas or local communities. However, policies within the 2035 General Plan and Community Plans would require parking plans and Zoning Ordinance amendments to accommodate the increased parking demand. Overall, impacts relating to parking are considered Class III, *less than significant*.	None required.	Impacts would be less than significant without mitigation.
Impact TC-6 The 2035 General Plan would not accommodate design features that would hinder emergency access. Development occurring under the 2035 General Plan would be required to provide adequate emergency access. Impacts to emergency access would be Class III, *less than significant*.	None required.	Impacts would be less than significant without mitigation.
UTILITIES AND SERVICE SYSTEMS		
Impact U-1 Development facilitated by the 2035 General Plan would result in an increase in water demand and could require construction or expansion of water facility infrastructure within certain community plan areas. However, planned improvements and proposed 2035 General Plan policies would reduce potential impacts. Therefore, impacts would be Class III, *less than significant*.	No additional mitigation is required beyond implementation of the proposed General Plan policies.	Impacts would be less than significant without mitigation.
Impact U-2 Development facilitated by the 2035 General Plan would increase wastewater generation above existing conditions and would require construction or expansion of treatment facilities within certain community plan areas. However, proposed 2035 General Plan policies would reduce	No significant impacts were identified.	Impacts would be less than significant without mitigation.

Table ES-1. Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
potential impacts. Therefore, impacts would be Class III, *less than significant*.		
Impact U-3 Development facilitated by the 2035 General Plan would incrementally increase the amount of impervious surfaces within the County and community plan areas, resulting in increased stormwater runoff and the need for additional stormwater infrastructure. However, 2035 General Plan policies would reduce potential impacts. Therefore, impacts would be Class III, *less than significant.*	No significant impacts were identified.	Impacts would be less than significant without mitigation.
Impact U-4 Development facilitated by the 2035 General Plan would result in an overall increase in the amount of solid waste generated. However, existing and planned landfills could adequately serve development throughout the planning horizon of the 2035 General Plan. Therefore, impacts would be Class III, *less than significant* impact.	No significant impacts were identified.	Impacts would be less than significant without mitigation.

1.0 INTRODUCTION

This document is a Draft Environmental Impact Report (EIR) that evaluates the potential environmental effects associated with implementation of the draft *2035 Kings County General Plan* Update (also called the "2035 General Plan" or "General Plan Update" within this EIR). The General Plan Update encompasses revisions to the existing Land Use, Resource Conservation, Open Space, Circulation, Health & Safety, Noise Elements, and the provision of a new Air Quality Element. The General Plan Update process also includes four new Community Plans for the communities of Armona, Home Garden, Kettleman City and Stratford. The General Plan Update includes goals, objectives, and policies that will guide the development of Kings County through the year 2035.

This section: (1) provides an overview of the background behind the existing 1993 General Plan; (2) summarizes the process involved in developing the General Plan Update; (3) describes the purpose of and legal authority of the EIR document; (4) summarizes the scope and content of the EIR; (5) lists lead, responsible, and trustee agencies for the EIR; (6) describes the intended uses of the EIR; and (7) provides a synopsis of the environmental review process required under CEQA.

The contents of other EIR sections are as follows:

- *Section 2.0, Project Description, provides a detailed discussion of the draft General Plan Update that includes Land Use, Resource Conservation, Open Space, Circulation, Health & Safety, Noise, and Air Quality Elements, as well as four Community Plans.*
- *Section 3.0, Environmental Setting, describes the general environmental setting for Kings County.*
- *Section 4.0, Environmental Impact Analysis, describes the potential environmental effects associated with the preferred land use scenario.*
- *Section 5.0, Other CEQA Requirements, discusses issues such as growth inducement and significant irreversible environmental effects.*
- *Section 6.0, Alternatives, discusses alternatives to the draft General Plan Update, including the CEQA-required "no project" alternative.*
- *Section 7.0, References and Preparers, lists informational sources for the EIR and persons involved in the preparation of the document.*

1.1 OVERVIEW OF THE GENERAL PLAN

The existing Kings County General Plan was adopted on December 28, 1993. Since then, it has been amended fifteen times between 1993 and 2004, and included a new optional Dairy Element adopted on July 30, 2002, and a 2003 Housing Element adopted on January 27, 2004. The *2035 Kings County General Plan* is a comprehensive effort to update the existing 1993 General Plan and respond to current local and regional conditions, as well as changes in state law that may not have been in place when the General Plan was last updated.

As part of the general plan update process, the County also developed four community plans to address growth and restraint issues in the County's four unincorporated communities which serve as the most likely areas for County unincorporated urban growth accommodation.

State law (Government Code Section 65300) requires that each city and county adopt a comprehensive general plan. The proposed project fulfills this requirement by updating the County's existing General Plan. The General Plan defines the framework by which the County's physical and economic resources are to be managed and used in the future. The General Plan's planning horizon is the year 2035. County decision-makers will use the plan as a blueprint for:

- *Choices about the use of land*
- *Protection of environmental resources*
- *Conservation and development of new housing*
- *Provision of supporting infrastructure and public and human services*
- *Protection of people and property from natural and man-made hazards*

The General Plan Update clarifies and articulates the County's intentions with respect to the rights and expectations of the various communities, including residents, property owners, and businesses. Through the General Plan, the County informs these groups of its goals, policies, and standards, thereby communicating expectations of the public and private sectors for meeting community objectives.

Since the General Plan and Community Plans are the constitution for all future development, any decision by a county affecting land use and development must be consistent with the respective plan. This includes any development projects proposed in the future. An action, program, or project would be considered consistent with the General Plan if, considering all of its aspects, it will further the objectives and policies of the General Plan or not obstruct their attainment.

Each of the General Plan Elements and Community Plans contain objectives and policies to implement the County's overarching goals. Objectives are statements that provide direction and state the desired end condition. Policies are specific statements that guide decision-making. They indicate a clear commitment by the County and generally serve as mandatory criteria.

1.2 GENERAL PLAN UPDATE PROCESS

In 2005, Kings County received notification from the Governor's Office of Planning and Research that the Kings County General Plan was in need of a comprehensive update. The Board of Supervisors subsequently authorized a two-year Comprehensive General Plan Update Program of the Kings County General Plan and directed the Community Development Agency to begin the update process. Preliminary efforts to update the County's General Plan included coordinating with community leaders, department staff, university groups, and consultants to prepare a program outline that identified key processes and components necessary to accomplish the comprehensive update. The resulting program outline included three major program groups consisting of Community Plans, General Plan Elements, and Review Components.

As part of this process, Community Plans were also prepared to more closely identify and address each unincorporated community's opportunities and challenges. Planning assistance from California Polytechnic State University, San Luis Obispo co-facilitated the Armona and Kettleman City community meetings, while Community Development Agency Staff conducted Home Garden and Stratford community meetings (see Table 1-1). All community meetings were held in each community from November 2006 through August 2007. The input from residents and other interested parties contributed towards the community concepts that were presented during the final meeting in each community. University students, in conjunction with the Community Development Agency, drafted the Kettleman City and Armona Community Plans, while the Stratford and Home Garden Plans were drafted by the Community Development Agency.

Table 1-1. Community Meetings

Community	# of Meetings	Average Attendance	Kickoff Meeting	Concluding Meeting
Armona	6	25	November 2, 2006	March 14, 2007
Home Garden	4	20	June 5, 2007	August 14, 2007
Kettleman City	10	25	September 28, 2006	March 13, 2007
Stratford	4	75	June 4, 2007	August 13, 2007

The General Plan Update includes revisions to the following elements:

- Land Use Element
- Resource Conservation Element
- Open Space Element
- Circulation Element
- Health & Safety Element
- Noise Element

The General Plan Update includes provision of the following new element:

- Air Quality Element

The General Plan update also includes the following four new Community Plans:

- Armona Community Plan
- Home Garden Community Plan
- Kettleman City Community Plan
- Stratford Community Plan

The Dairy Element was adopted in 2002 and the Housing Element is currently being updated on a different timeline than the comprehensive General Plan Update and will be presented to the State Department of Housing and Community Development by August 2009. Specialized consultants were hired to draft the Circulation Element, Noise Element, Resource Conservation Element, Open Space Element, and Air Quality Element.

The timeline for the General Plan Update also coincided with the San Joaquin Valley Regional Blueprint planning process and was integrated into the Community Development Agency

General Plan preparation efforts. Many new policies and land use changes for the General Plan Update were the result of the public participation associated with the Blueprint process. For example, the Blueprint process indicated a preference for an increase in residential densities and maintaining an agricultural safety buffer around the Naval Air Station Lemoore. The preferred Kings County Blueprint Scenario emphasized agricultural preservation, economic development, and increased housing densities in the centralized urban cores. Many of these preferences were included in the update of the General Plan.

Public participation is a necessary element to a comprehensive general plan update, and public involvement meetings were held throughout the General Plan Update process. A Kings County General Plan Advisory Committee (GPAC) was established to serve as an advisory body to the Community Development Agency during plan development. Members of the Committee represented a wide variety of government and special interest groups including members or representatives from the County Board of Supervisors, County Planning Commission, cities, communities, water/irrigation districts, agricultural industries, commercial industrial representatives, and members of the public at large. GPAC meetings were open to the public and were held once a month during the duration of the update process. Community Development Agency staff also held meetings with several of the special interest groups to gain feedback on the proposed General Plan policies.

1.3 LEGAL AUTHORITY

This EIR has been prepared in accordance with the California Environmental Quality Act (CEQA), the *State CEQA Guidelines*, and the County's Rules for the Implementation of CEQA. In accordance with Section 15121 (a) of the *State CEQA Guidelines* (California Code of Regulations, Title 14, Division 6, Chapter 3), the purpose of an EIR is to:

> *Inform public agency decision-makers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project.*

This EIR fulfills the requirements for a Program EIR. Although the legally required contents of a Program EIR are the same as those of a Project EIR, Program EIRs are typically more conceptual and may contain a more general discussion of impacts, alternatives, and mitigation measures than a Project EIR. As provided in Section 15168 of the *CEQA Guidelines*, a Program EIR may be prepared on a series of actions that may be characterized as one large project. Use of a Program EIR provides the County (as Lead Agency) with the opportunity to consider broad policy alternatives and program-wide mitigation measures and provides the County with greater flexibility to address environmental issues and/or cumulative impacts on a comprehensive basis. Agencies generally prepare Program EIRs for programs or a series of related actions that are linked geographically, are logical parts of a chain of contemplated events, rules, regulations, or plans that govern the conduct of a continuing program, or are individual activities carried out under the same authority and having generally similar environmental effects that can be mitigated in similar ways. By its nature, a Program EIR considers the "macro" effects associated with implementing a program (such as a General Plan) and does not, and is not intended to, examine the specific environmental effects associated with individual projects that may be implemented pursuant to the General Plan.

Once a Program EIR has been prepared, subsequent activities within the program must be evaluated to determine what, if any, additional CEQA documentation needs to be prepared. If the Program EIR addresses the program's effects as specifically and comprehensively as possible, many subsequent activities could be found to be within the Program EIR scope and additional environmental documents may not be required (*CEQA Guidelines* Section 15168(c)). When a Program EIR is relied on for a subsequent activity, the Lead Agency must incorporate feasible mitigation measures and alternatives developed in the Program EIR into the subsequent activities (*CEQA Guidelines* Section 15168(c)(3)). If a subsequent activity would have effects not within the scope of the Program EIR, the Lead Agency must prepare a new Initial Study leading to a Negative Declaration, Mitigated Negative Declaration, or a project level EIR. In this case, the Program EIR still serves a valuable purpose as the first-tier environmental analysis. The *CEQA Guidelines* (Section 15168(h)) encourage the use of Program EIRs, citing five advantages:

1. *Provision of a more exhaustive consideration of impacts and alternatives than would be practical in an individual EIR*
2. *Focus on cumulative impacts that might be slighted in a case-by-case analysis*
3. *Avoidance of continual reconsideration of recurring policy issues*
4. *Consideration of broad policy alternatives and programmatic mitigation measures at an early stage when the agency has greater flexibility to deal with them*
5. *Reduction of paperwork by encouraging the reuse of data (through tiering)*

It should be noted that as a program level environmental document, the General Plan EIR uses appropriately programmatic thresholds as compared to the project-level thresholds that might be used for an EIR on a specific development project. It should not be assumed that impacts determined not to be significant at a program level would not be significant at a project level. In other words, determination that implementation of the General Plan Update as a "program" would not have a significant environmental effect does not necessarily mean that an individual project would not have significant effects based on project-level CEQA thresholds, even if the project is consistent with the General Plan. Conversely, it may be possible for certain impacts identified as significant at the program level to be less than significant for certain individual projects, depending on the nature of the project.

1.4 SCOPE AND CONTENT OF THE EIR

In accordance with the *CEQA Guidelines*, a Notice of Preparation (NOP) of a Draft EIR was circulated to the public on December 3, 2008. The NOP, included in Appendix A, indicated that the following issues would be further evaluated in the Draft EIR. These include:

- *Aesthetics*
- *Agriculture Resources*
- *Air Quality*
- *Biological Resources*
- *Cultural Resources*
- *Geology/Soils*
- *Hazards & Hazardous Materials*
- *Hydrology/Water Quality*
- *Land Use/Planning*
- *Noise*
- *Population/Housing*
- *Public Services*
- *Recreation*
- *Transportation/Traffic*
- *Utilities/Service Systems*

The County received written responses to the NOP. The responses, included in Appendix A, are addressed as appropriate in the analysis contained in the various subsections of Section 4.0, *Environmental Impact Analysis*. The County also held an EIR scoping meeting on December 15, 2008, at the Board Chambers, located on 1400 West Lacey Boulevard, Administration Building No. 1, Hanford, California 93230. Input from that meeting is also reflected in the EIR analysis.

1.5 LEAD, RESPONSIBLE, AND TRUSTEE AGENCIES

The County of Kings is the lead Agency under CEQA for this EIR because it has discretionary authority to determine whether or how to approve the General Plan Update that includes Land Use, Resource Conservation, Open Space, Circulation, Health & Safety, Noise, and Air Quality Elements, as well as the four Community Plans.

"Responsible Agencies," are other agencies that are responsible for carrying out or implementing a specific component of the General Plan or for approving a project (such as an annexation) that implements the goals and policies of the General Plan. Section 15381 of the *State CEQA Guidelines* defines a "responsible agency" as:

> *A public agency which proposes to carry out or approve a project, for which a Lead Agency is preparing or has prepared an EIR or Negative Declaration. For purposes of CEQA, responsible agencies include all public agencies other than the lead agency that have discretionary approval authority over the project.*

The following two agencies may be responsible agencies, particularly for upgrades to State Highways and for potential annexations to cities and special districts within the County.

- *The **California Department of Transportation (Caltrans)** has responsibility for approving future improvements to the state highway system, including Interstate 5, and State Routes 33, 41, 43, 137, 198 and 269.*
- *The **Local Agency Formation Commission (LAFCo)** of the County of Kings has responsibility for approving any annexations to the County that might occur over the life of the General Plan.*

Trustee agencies have jurisdiction over certain resources held in trust for the people of California but do not have a legal authority over approving or carrying out the project. CEQA Guidelines Section 15386 designates only four agencies as potential Trustee Agencies for projects subject to CEQA: The California Department of Fish and Game with regards to fish and wildlife, native plants designated as rare or endangered, game refuges, and ecological reserves; the California State Lands Commission, with regard to state-owned "sovereign" lands, such as the beds of navigable waters and state school lands; the California Department of Parks and Recreation, with regard to units of the state park system; and, the University of California, with regard to sites within the Natural Land and Water Reserves System. The CDFG is the trustee agency for the General Plan EIR due to the potential impacts to biological resources and California State Lands Commission if development were to occur on school lands or along the bed of Kings River, which is considered sovereign lands.

1.6 INTENDED USES OF THE EIR

This EIR is as an informational document for use in the County's review and consideration of the General Plan Update. It is to be used to facilitate creation of a General Plan that incorporates environmental considerations and planning principles into a cohesive policy document. The General Plan will guide subsequent actions taken by the County in its review of new development projects and its establishment of new and/or revised countywide programs.

This EIR discloses the possible environmental consequences associated with the General Plan Update that includes Land Use, Resource Conservation, Open Space, Circulation, Health & Safety, Noise, and Air Quality Elements, as well as the four Community Plans. The information and analysis in this EIR will be used by the Kings County Planning Commission and Board of Supervisors, responsible and trustee agencies, and the general public.

The purpose of this EIR is to:

- *Provide information about the General Plan Update for consideration by the County Planning Commission and Board of Supervisors in its selection of an alternative or a combination of various elements from each alternative for approval;*
- *Review and evaluate the potentially significant environmental impacts that could occur as a result of the growth and development envisioned in the General Plan Update and different growth scenarios;*
- *Identify feasible mitigation measures that may be incorporated into the project in order to reduce or eliminate potentially significant effects;*
- *Disclose any potential growth-inducing and/or cumulative impacts associated with the General Plan; and*
- *Examine a reasonable range of alternative growth scenarios that could feasibly attain the basic "project" objectives, while eliminating and/or reducing some or all of the potentially significant adverse environmental effects.*

1.7 EIR PROCESS

The environmental review process, as required under CEQA, is summarized below.

1. **Notice of Preparation (NOP).** After deciding that an EIR is required, the lead agency must file an NOP soliciting input on the EIR scope to the State Clearinghouse, other concerned agencies, and parties previously requesting notice in writing (*CEQA Guidelines* Section 15082; Public Resources Code Section 21092.2). The NOP must be posted in the County Clerk's office for 30 days. For projects of regional significance, the lead agency holds a scoping meeting during the 30-day NOP review period.

2. **Draft EIR.** The Draft EIR must contain: a) table of contents or index; b) summary; c) project description; d) environmental setting; e) discussion of significant impacts (direct, indirect, cumulative, growth-inducing and unavoidable impacts); f) a discussion of alternatives; g) mitigation measures; and h) discussion of irreversible changes.

3. **Notice of Completion.** Upon completion of a Draft EIR, the lead agency must file a Notice of Completion with the State Clearinghouse and prepare a Public Notice of Availability of a Draft EIR. The lead agency must place the Notice in the County Clerk's office for 30 days (Public Resources Code Section 21092) and send a copy of the Notice to anyone requesting it (*CEQA Guidelines* Section 15087). In addition, public notice of the availability of the Draft EIR must be given through at least one of the following procedures: a) publication in a newspaper of general circulation; b) posting on and off of the project site; or c) direct mailing to owners and occupants of contiguous properties and others who have requested such notification. The lead agency must solicit comments from the public and respond in writing to all written comments received (Public Resources Code Sections 21104 and 21253). The minimum public review period for a Draft EIR is 30 days. When a Draft EIR is sent to the State Clearinghouse for review, the public review period must be 45 days (Public Resources Code Section 21091).

4. **Final EIR.** Following the close of the Draft EIR review period, a Final EIR is prepared. The Final EIR must include: a) the Draft EIR; b) copies of comments received during public review; c) a list of persons and entities commenting; and d) responses to comments.

5. **Final EIR Certification.** Prior to making a decision on a proposed project, the lead agency must certify that: a) the Final EIR has been completed in compliance with CEQA; b) the Final EIR was presented to the decision-making body of the lead agency; and c) the decision-making body reviewed and considered the information in the Final EIR prior to approving the project (*CEQA Guidelines* Section 15090).

6. **Lead Agency Project Decision.** Upon certification of an EIR, the lead agency makes a decision on the project analyzed in the EIR. A lead agency may: a) disapprove a project because of its significant environmental effects; b) require changes to a project to reduce or avoid significant environmental effects; or c) approve a project despite its significant environmental effects, if the proper findings and statement of overriding considerations are adopted (*CEQA Guidelines* Sections 15042 and 15043).

7. **Findings/Statement of Overriding Considerations.** For each significant impact of the project identified in the EIR, the lead or responsible agency must find, based on substantial evidence, that either: a) the project has been changed to avoid or substantially reduce the magnitude of the impact; b) changes to the project are within another agency's jurisdiction and such changes have or should be adopted; or c) specific economic, social, or other considerations make the mitigation measures or project alternatives infeasible *(CEQA Guidelines* Section 15091). If an agency approves a project with unavoidable significant environmental effects, it must prepare a written Statement of Overriding Considerations that sets forth the specific social, economic, or other reasons supporting the agency's decision and explains why the project's benefits outweigh the significant environmental effects.

8. **Mitigation Monitoring/Reporting Program.** When an agency makes findings on significant effects identified in the EIR, it must adopt a reporting or monitoring program for mitigation measures that were adopted or made conditions of project approval to mitigate significant effects.

2.0 PROJECT DESCRIPTION

The proposed project is an update to the Kings County General Plan (hereinafter referred to as the "2035 General Plan", or as "General Plan Update") and encompasses revisions to the Land Use, Resource Conservation, Open Space, Circulation, Health & Safety, and Noise Elements. The project also includes a new Air Quality Element, which was not part of the 1993 General Plan. The General Plan Update process also includes four new community plans for the communities of Armona, Home Garden, Kettleman City and Stratford. The General Plan Update includes goals, objectives, and policies that will guide the development of Kings County through the year 2035.

This section of the EIR describes the key characteristics of the General Plan Update, including the project proponent, the geographic extent of the plan, project objectives, required approvals, and development forecasted for the plan area. This section also identifies and summarizes the key policy statements from the General Plan elements and each of the four community plans that have the potential to result in physical environmental effects.

2.1 PROJECT PROPONENT

County of Kings
Kings County Government Center
1400 West Lacey Blvd.
Hanford, CA 93230

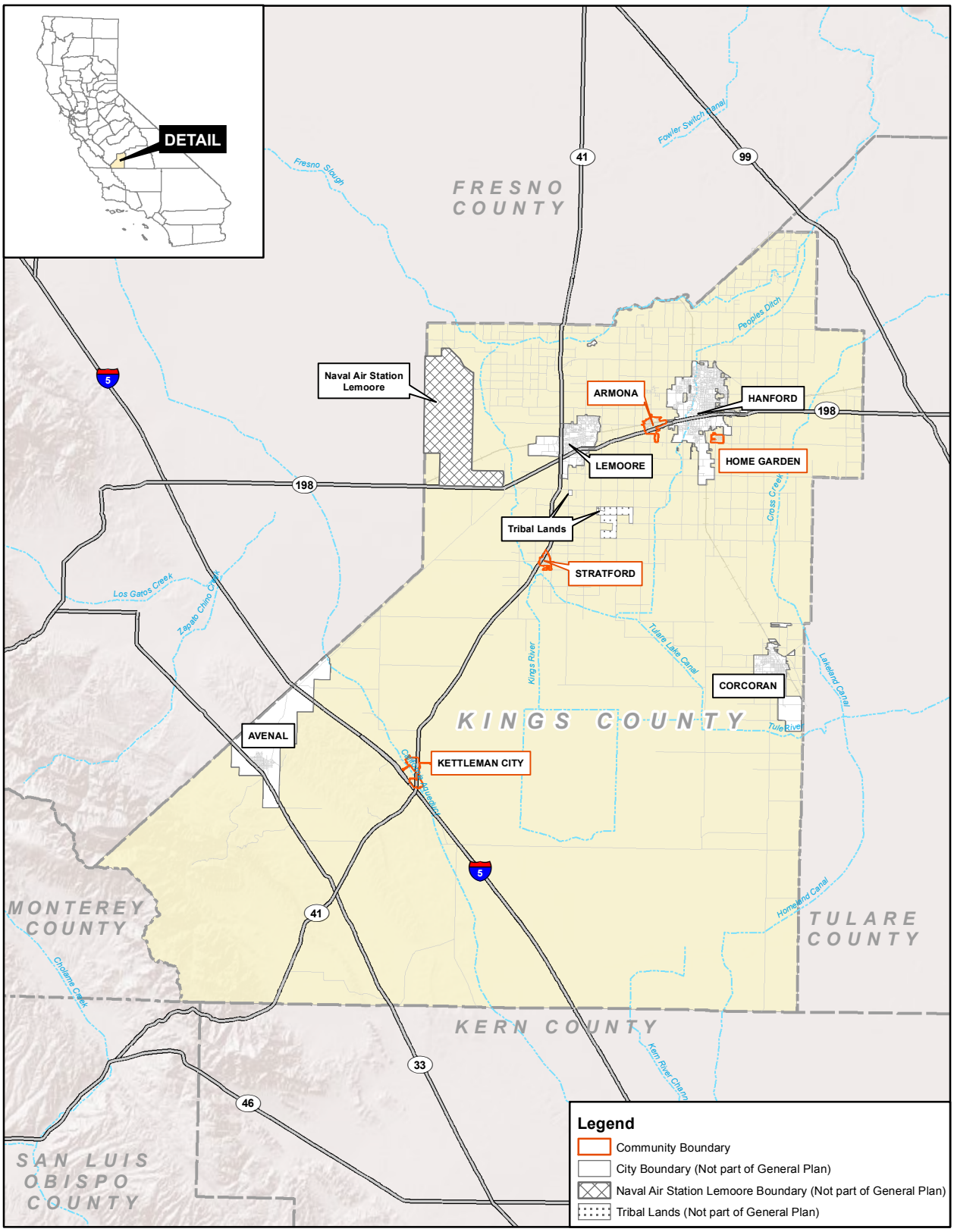
2.2 GEOGRAPHIC EXTENT OF THE GENERAL PLAN AREA

The County of Kings is located in the San Joaquin Valley portion of the Great Central Valley of California that lies south of the Sacramento-San Joaquin Delta, and is comprised of 1,391 square miles. Figure 2-1 shows Kings County's relationship to the State Route system, nearby counties, cities and communities.

Kings County is one of eight counties that comprise the San Joaquin Valley, and is bounded on the west by the Coast Ranges; the Sierra Nevada Mountain range to the east; the Tehachapi's to the south; and the Sacramento Valley to the north. The San Joaquin Valley supports extensive farmland practices. Kings County's farm land area is level irrigated farmland that averages well over $1 billion a year in commercial crop production.

Within the San Joaquin Valley, Kings County is bordered by Fresno County to the north and west; Kern County to the south; Tulare County to the east; and Monterey County and San Luis Obispo County to the southwest. Elevations range from 175 feet in the Tulare Lake Basin to 3,473 feet at the extreme southwestern portion of the County in the Coast Ranges.

There are four incorporated cities within Kings County, which contain approximately seventy-seven percent of the 2008 total county population estimate of 154,434 (California Department of Finance, 2009). The four cities are Avenal, Corcoran, Hanford, and Lemoore. Several unincorporated communities are also located within the County, as well as Naval Air Station



Base map source: Map images copyright © 2009 ESRI and its licensors. All rights reserved. Used by permission. U.S. Bureau of the Census TIGER 2000 data.

N 0 5 10 Miles

County and Regional Map

Figure 2-1

Lemoore, and Santa Rosa Rancheria. A majority of the population within unincorporated Kings County is located in the four unincorporated communities of Armona, Home Garden, Kettleman City, and Stratford, which is why these areas are subject to community plans under the General Plan Update.

2.3 1993 GENERAL PLAN

The existing *1993 Kings County General Plan*, with the latest comprehensive update, was adopted on December 28, 1993. Since then, it has been amended fifteen times between 1993 and 2004. An optional new Dairy Element was also adopted on July 30, 2002, and a 2003 Housing Element revised on January 27, 2004.

The Kings County General Plan serves as the primary policy document that guides land use decisions in the County. The General Plan is designed to be compatible with plans and policies established by other governmental agencies, including the four incorporated cities, adjacent counties, and regional agencies including, but not limited to, the Kings County Association of Governments, the California Department of Transportation (Caltrans), the San Joaquin Valley Air Pollution Control District, the Regional Water Quality Control Board, the California Water Resources Agency, the California Integrated Waste Management Board, and the California Department of Fish and Game. The text of the various elements notes those situations where these agencies may have particular or overriding responsibilities that affect the physical development of the county.

The *1993 Kings County General Plan* consists of the following elements:

- Land Use Element
- Circulation Element
- Resource Conservation Element
- Open Space Element
- 2003 Housing Element (revised on January 27, 2004)
- Safety Element
- Noise Element
- Dairy Element (adopted on July 30, 2002)

2.4 DRAFT 2035 GENERAL PLAN OBJECTIVES

The general objectives of the draft 2035 General Plan are as follows.

- Promote and concentrate residential, commercial and industrial growth within the Community Plan areas of Armona, Home Garden, Kettleman City and Stratford;
- Establish mixed uses in the Community Plan areas to create definable downtown cores that promote pedestrian usage and economic vibrancy;
- Provide traffic circulation routes and public transportation that meet the needs of County residents through the year 2035 and reduce overall vehicle miles traveled;
- Protect County residents from exposure to excessive noise levels;
- Reduce or eliminate long term risk to people and property from natural or man made hazards;

- Protect water, natural lands, agriculture, prime soils, native plant & animal habitat, threatened & endangered species, fishing, energy, mineral, and archaeological, cultural and historical resources throughout the County;
- Establish open spaces throughout the County that promote the preservation of agriculture and scenic resources and provide community and safety separation buffers; and
- Improve air quality throughout the County and reduce impacts associated with greenhouse gases and climate change.

2.5 DRAFT 2035 GENERAL PLAN

The proposed project is the update of six of the eight existing General Plan elements, and the addition of a new element to the General Plan. These elements are as follows:

- Land Use Element
- Circulation Element
- Resource Conservation Element
- Open Space Element
- Health & Safety Element
- Noise Element
- Air Quality Element (not in 1993 General Plan)

The remaining two elements (Dairy and Housing) are not part of this update, and are not included in the proposed project for the purpose of this EIR. The proposed project also includes four new community plans:

- Armona Community Plan
- Home Garden Community Plan
- Kettleman City Community Plan
- Stratford Community Plan

The EIR analysis focuses on two primary components of the draft 2035 General Plan: (1) physical development potential, and (2) goals and policies with the potential to result in physical environmental effects. The potential physical development within the unincorporated portions of the County is reviewed and evaluated for each of the areas of environmental impact. As appropriate, the environmental effects of implementing the goals, policies, and actions included in the 2035 General Plan are also reviewed and evaluated for each area of potential impact. Because many of the goals, policies, and actions are specifically intended to mitigate the environmental effects associated with future growth in the County, they are discussed as part of an overall mitigation strategy, where applicable, for a given issue. The key features of each Element of the General Plan Update are summarized below.

a. Land Use Element. The Land Use Element describes the general distribution, location, and extent of various land uses. It contains a statement of the standards of population density and building intensity, types of permissible uses, and special development and permit review requirements. The Land Use Element has been reorganized to group land use policies into five distinctive categories that are reflective of the County's unincorporated environment. Modeled after the Rural-to-Urban transect approach to smart growth, the County's land use

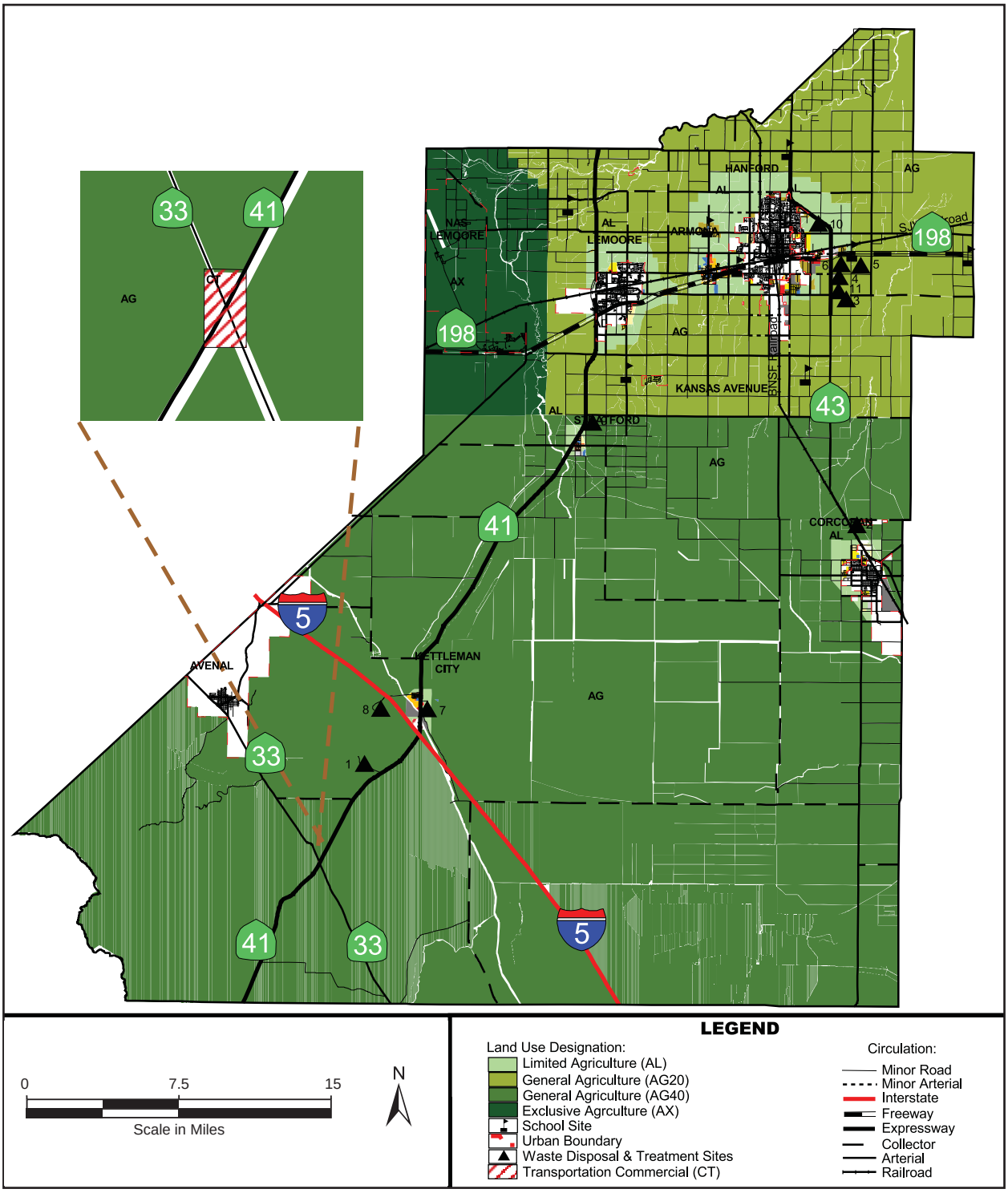
policies are grouped for ease of reference into "Natural Lands", "Agriculture and Open Space", "Rural Interface", "Community Districts", and "Urban Fringe". An additional section has been added to address procedural requirements and review criteria for any new community or new city proposals.

Existing and Proposed Land Use Maps. The purpose of the General Plan land use maps is to guide the general distribution, location and extent of the various types of land uses throughout the County. Figure 2-2 shows the County's existing 1993 General Plan land use map, Figure 2-3 shows the land use map as proposed by the 2035 General Plan and Figure 2-4 shows the parcels in which development could occur.

Minor land use changes are proposed to resolve the General Plan consistency with the County's Zoning Ordinance. The four Community Plan areas include the most substantial urban type land use changes, and are the only areas with expanded urban growth in the County unincorporated areas to accommodate future urban growth. Substantial changes are also proposed for conversion within the non-urban type land uses that increase the natural resource conservation and open space designations. Land use and planned urban growth are addressed in greater detail below.

The 2035 General Plan land use map includes 30 individual land use designations. Table 2-1 summarizes the proposed breakdown of land use designations within the County. The specific purpose and generally allowed uses within each land use category are described in the paragraphs that follow this table.

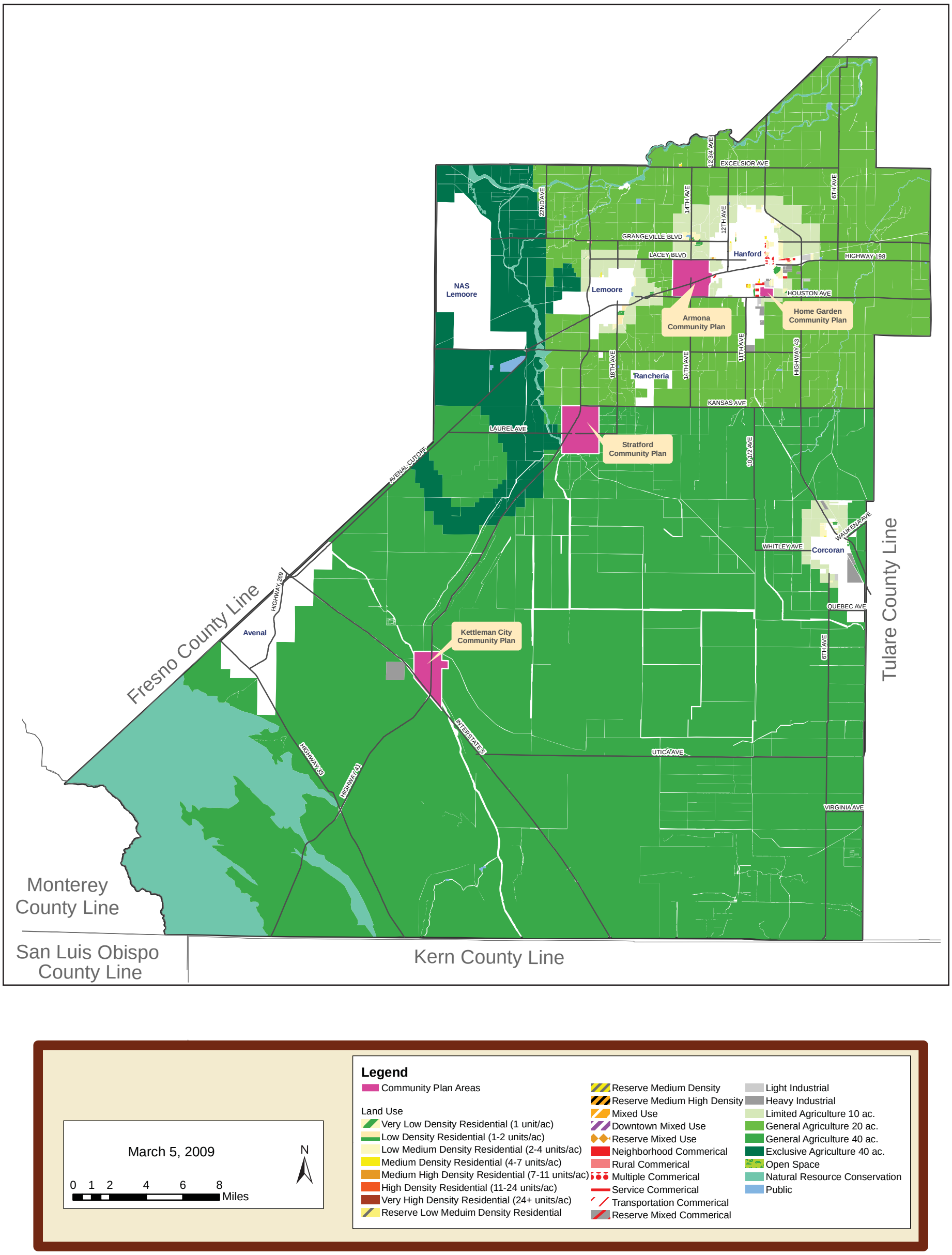
Proposed land use designations are defined according to several general types of land uses, Agriculture, Residential, Commercial, Mixed Use, Industrial, Open Space, and other land uses, as summarized in Table 2-1. The following is a detailed description of each of the proposed land use designations.



Base map source: Kings County Community Development Agency, 2004.

Existing Land Use Designation Map Countywide

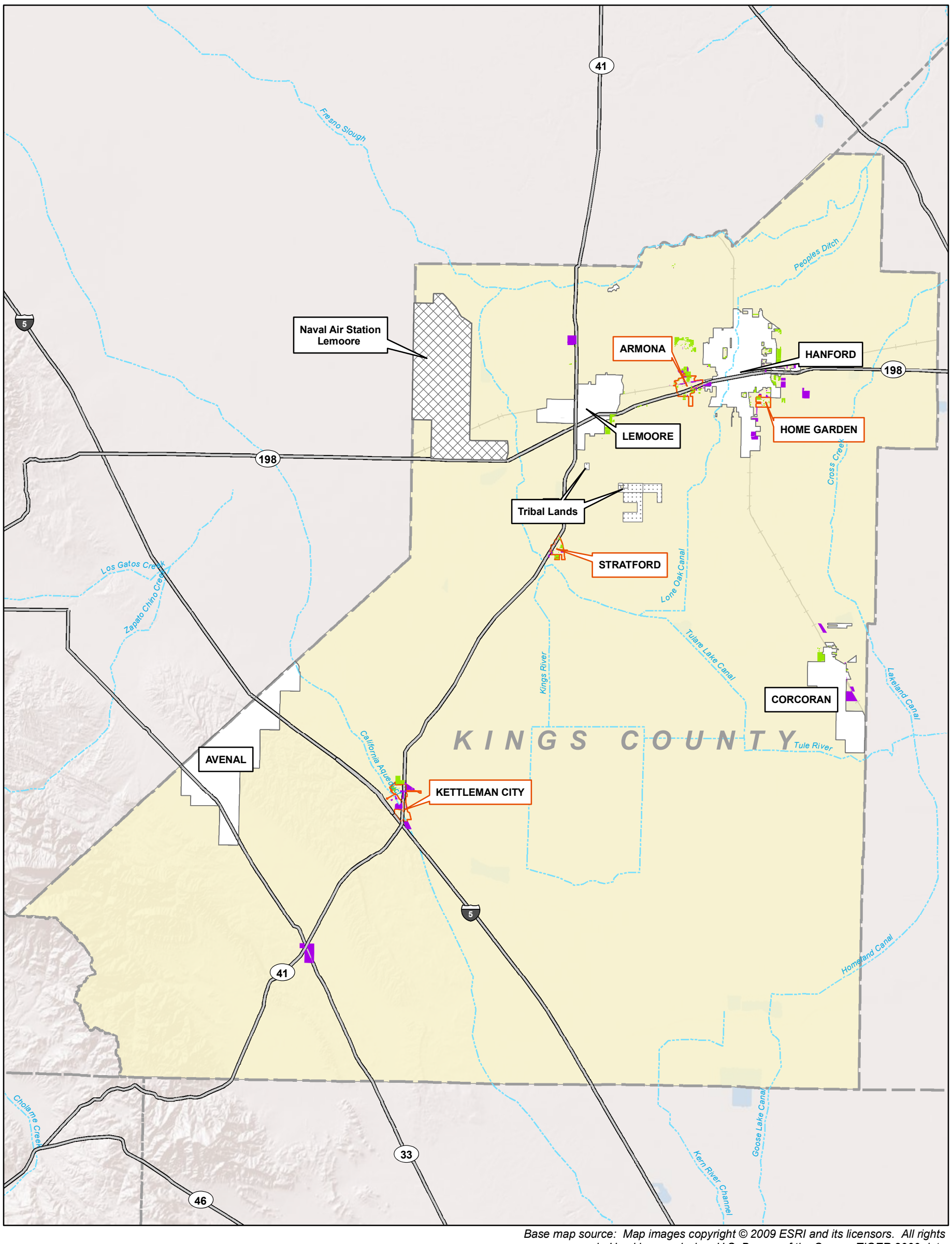
Figure 2-2



Base map source: Kings County Community Development Agency, 2009.

Proposed Land Use Designation Map Countywide

Figure 2-3



Base map source: Map images copyright © 2009 ESRI and its licensors. All rights reserved. Used by permission. U.S. Bureau of the Census TIGER 2000 data and Kings County, 2009.

Legend

Vacant Parcel Type

- Non-Residential
- Residential

Additional Overlays

- Community Boundary
- City Boundary (Not part of General Plan)
- Naval Air Station Lemoore Boundary (Not part of General Plan)
- Tribal Lands (Not part of General Plan)

0 5 10 Miles

N

Countywide Vacant Parcels

Figure 2-4

Table 2-1. Kings County Land Use Summary

General Plan Land Use Designation	Zone District Abbreviation	Total Acres	Percent of Land Use
Agriculture	**A**	**738,501.42**	**90.17%**
Limited Agricultural	AL-10	22,606.59	
General Agriculture-20 Acre	AG-20	147,418.32	
General Agriculture-40 Acre	AG-40	520,539.95	
Exclusive Agriculture	AX	47,936.56	
Residential	**R**	**3,073.10**	**0.38%**
Very Low Density	RRE/RRA	1,122.11	
Low Density	R-1-20	320.63	
Low Medium Density	R-1-12	275.55	
Medium Density	R-1-8 or R-1-6	667.47	
Medium High Density	RM-3	226.21	
High Density	RM-2	80.35	
Very High Density	RM-1.5	15.18	
Reserve Low Medium Density	R(R)	53.13	
Reserve Medium Density	R(R)	278.82	
Reserve Medium High Density	R(R)	33.95	
Mixed Use	**MU**	**156.19**	**0.02%**
Downtown Mixed Use	MU-D	41.60	
Mixed Use	MU	80.37	
Reserve Mixed Use	MU(R)	34.22	
Transitional	MU-T	5.49	
Commercial	**C**	**813.18**	**0.10%**
Neighborhood commercial	CN	14.59	
Rural Commercial	CR	133.65	
Service Commercial	CS	274.59	
Transportation Commercial	CT, CH, CHL	210.60	
Multiple Commercial	CS, CH	135.74	
Reserve Multiple Commercial	C(R)	44.01	
Industrial	**I**	**2,506.20**	**0.31%**
Light Industrial	IL	472.86	
Heavy Industrial	IH	2,033.34	
Planned Industrial	IP	0.00	
Other Uses		**73,940.53**	**9.03%**
Natural Resource Conservation	NRC	64,698.03	
Open Space	OS	810.72	
Public	PF	1,141.78	
	Total	**818,990.62**	**100%**

Source: Kings County Community Development Agency GIS data - May 25, 2009.

Agriculture Designations

Agricultural land use designations account for a vast majority of the County's land area. There are four agricultural land use designations: Limited Agriculture, General Agriculture (20-Acre Minimum), General Agriculture (40-Acre Minimum), and Exclusive Agriculture. The major differences between the four agriculture designations relate to minimum parcel size, animal keeping, and agricultural service businesses. Each land use designation is described in further detail below.

Land Use Designation	Purpose and Allowed Uses
Limited Agriculture	This designation is intended for application around Cities and Community Districts to serve as a transitional buffer between intensive agricultural uses and urban land uses. Intensive agricultural uses are allowed in General Agriculture designated areas, and may include large animal concentrations. The Limited Agriculture designation allows less intensive agricultural practices and operations, and considered more compatible with urban land uses.
General Agriculture-20 Acre Minimum (North County)	This designation is applied to rural areas of the County north of Kansas Avenue, excluding the Urban Fringe areas of Hanford and Lemoore, communities of Armona and Home Garden, the AX surrounding the Naval Air Station Lemoore, the Santa Rosa Rancheria Trust Land, and other small Rural Interface pockets of urban uses. Generally characterized by extensive and intensive agricultural uses, farms within this designation have historically been smaller in size. These areas should remain reserved for commercial agricultural uses because of their high quality soil, natural and manmade waterways, and scenic nature with larger concentrations of orchards, vineyards, and valley oak trees.
General Agriculture-40 Acre Minimum (South County)	This designation is applied to rural areas of the County south of Kansas Avenue, excluding the Urban Fringe areas of Corcoran, the communities of Kettleman City and Stratford, high slope areas of the Coast Ranges, and open space buffer along the State Route 41 corridor west of Interstate 5. Included within this designation are large corporate farming areas of the Tulare Lake Basin, and areas of the valley floor generally characterized by extensive and intensive agricultural uses. Extensive irrigation channels and levees divert surface water to support field crops along the valley floor and orchards along the Kettleman Hills. This designation allows intensive agricultural uses that by their nature may be incompatible with urban uses. Much of the land within this designation is also subject to flood hazard risk and should remain devoted to agriculture use to reduce the potential for future conflicts.
Exclusive Agriculture	This designation is applied around Naval Air Station Lemoore and its flight paths to reduce potential conflicts between military jet aircraft operations and surrounding land uses. Areas subject to potential military aircraft noise and safety issues are designated Exclusive Agriculture to reduce the number of residences and preserve priority agricultural lands from encroachment by incompatible uses. High quality soils exist throughout these areas, while natural and manmade waterways carry agricultural sustaining water resources. These lands are suitable for agricultural crop, orchard and vineyard production, or small concentrations of livestock.

Residential Designations

Residential land use designations are primarily used in the "Urban Fringe" and "Community Districts," while "Rural Interface" has small pockets of limited residential uses. There are seven residential designations: Very Low Density, Low Density, Low Medium Density, Medium Density, Medium High Density, High Density, and Very High Density. These are defined based on the number of persons per acre that such development would support, ranging from up to three persons per acre in the Very Low Density Residential category, to as many as 77 persons per acre in the High Density Residential designation. The largest extent of County residential land use designations are applied in the "Community Districts" of Armona, Home Garden, Kettleman City and Stratford where community water and sewer services are provided. Residential designations within "Rural Interface" areas are mostly located within the Grangeville, Halls Corner, and Hardwick areas. No new residential expansions are considered in "Rural Interface" areas as they lack community water and sewer systems. Allowed uses within the residential land use designations are described below.

Land Use Designation	Purpose and Allowed Uses
Very Low Density Residential	This designation covers rural residential large lot or "estate" living areas where sites have the advantage of both urban and rural settings. Densities comprise one single family dwelling on not less than one acre, with up to three persons per acre. This very low density residential designation is intended to enable residents the opportunity to raise a limited number of animals that are kept for non-commercial pleasure or hobbies.
Low, Low Medium, & Medium Density Residential:	These residential designations are intended to provide living areas within the County where development is limited to concentrations of single family dwellings and where regulations are designed to accomplish the following: promote and encourage a suitable environment for family life; provide space for community facilities needed to complement urban residential areas and for institutions which require a residential environment; to minimize traffic congestion; avoid the overloading of utilities and public facilities designed to service primarily single-family residential uses in accordance with density standards of the General Plan; and to facilitate the production of affordable housing. These designations establish urban densities between one and seven dwelling units per acre, resulting in population densities ranging from approximately 3 to 22.5 persons per acre.
Medium High, High, and Very High Density Residential:	These residential designations are intended primarily to provide the development of multi-family residential structures at densities consistent with the location and character of the area, primarily within the proximity of transit corridors, commercial services, and public facilities. These designations establish urban densities between seven and 24+ dwelling units per acre, resulting in population densities ranging from approximately 22.5 to 77 persons per acre.

Commercial Designations

Several classes of commercial designations are designed to provide opportunities for various types of retail stores, offices, service establishments and wholesale businesses in locations throughout the County that are conveniently accessible to the public and local patrons. These designations are located primarily adjacent to incorporated cities and the four community plan areas within the County. Commercial uses can be mutually beneficial to other land uses when located within communities and other unincorporated urban areas where patrons reside. Commercial designations are implemented by the zoning ordinance, which allows varying degrees of use intensity. Standards for development are contained in the zoning and subdivision ordinances and the County Improvement Standards. The purpose and allowed uses in the five commercial land use designations are described below.

Land Use Designation	Purpose and Allowed Uses
Neighborhood Commercial	The Neighborhood Commercial Designation provides for the provision of retail and personal service facilities to satisfy the convenience-goods needs of the consumer relatively close to his or her place of residence and is primarily intended to serve as the central trading district of the County's large unincorporated communities. The corresponding zone district includes the Neighborhood Commercial Zone District which provides this designation with numerous permitted and conditional uses of a neighborhood, commercial service, and highway commercial nature to properly accommodate demands for commercial space convenient to the surrounding populations served.
Transportation Commercial	This designation is intended to provide transportation needs for travelers on the County's major streets, entrances to major streets and highways, and in rural areas along major highways at controlled access points for the convenience of the highway user. Corresponding zone districts include the Thoroughfare Commercial, Highway Commercial, and Limited Highway Commercial Zone Districts which allow land uses directed to the health and safety, recreation, and support to highway travelers.

Land Use Designation	Purpose and Allowed Uses
Service Commercial	The Service Commercial Designation is intended primarily for establishments engaged in servicing equipment, materials and products, but which do not require the manufacturing, assembling, packaging or processing of articles of merchandise for distribution and retail sale. Land requirements for most commercial service uses generally dictate its application along major streets of the County which generally lie close to highway commercial and industrial districts.
Rural Commercial	The Rural Commercial Designation is intended primarily for application to such rural service centers of the County as Armona, Kettleman City, Stratford, Grangeville, Hardwick, and Halls Corner to permit the establishment of uses which cater primarily to the needs of rural residents. Since it is not reasonable to expect large-scale urban development within these communities with an attendant demand for specialized commercial designations, the Rural Commercial Designation is established to permit the accommodation of most of the commercial uses otherwise provided for in other commercial designations.
Multiple Commercial	The Multiple Commercial Designation is intended for use along transportation corridors or around Industrial Designated areas. This commercial mixture allows for servicing commercial industries or serving the commercial needs for highway travelers. The associated zone districts include the Commercial Service and Highway Commercial Zone Districts.

Mixed Use Designations

The Mixed Use Designations are intended for application in unincorporated community downtowns or community core areas, and integrate a mixture of commercial, residential, and office type uses that are often segregated into separate land use areas. Two Mixed Use designations are designed for implementation within the County's Community Districts and a Transitional designation is applied where existing mixes of land uses occur. These are described in greater detail below:

Land Use Designation	Purpose and Allowed Uses
Downtown Mixed Use	This designation allows a variety of compatible and integrated land uses to share common structures in a manner that establishes a downtown atmosphere of uses and activity. Downtown Mixed Use is established in definable downtown core areas of the Community Districts and ties to design standards that build upon a community's desired downtown theme. This designation is intended to provide flexibility in design and use for contiguous parcels having multiple owners, and enhance the character of a community area.
Mixed Use	This designation is similar in nature to the Downtown Mixed Use, except for its intended use in other community core areas that are less oriented towards a particular design theme. Mixed Use also allows a variety of compatible and integrated land uses to share common structures, and provides flexibility in design and use for contiguous parcels having multiple owners.
Transitional	Areas designated Transitional consist of a mixture of residential and professional/business office uses located at the boundary between areas designated Residential and Commercial. The Kettleman City Community Plan is the only area designated with Transitional along Becky Pease Street, and allows both uses to continue without nonconforming status until a more definite development trend is established. This designation is intended to encourage the full development of properties which lie between residential and nonresidential districts. When the areas is determined substantially developed, a specific zone designation of either Residential or Commercial, whichever is most compatible with predominant existing uses in the area, will be applied.

Industrial Designations

The Industrial land use designations are intended to achieve the following purposes: to reserve appropriately located areas for various types of industrial plants and related activities; to protect areas appropriate for industrial use from intrusion by residences and other inharmonious uses; to protect residential and commercial properties and to protect nuisance-free non-hazardous industrial uses from noise, odor, dust, dirt, smoke, vibration, heat, glare, fire, explosion, noxious fumes, radiation and other hazardous and objectionable influences incidental to certain industrial uses; to provide opportunities for certain types of industrial plants to concentrate in mutually beneficial relationships to each other; to provide adequate space to meet the needs of modern industrial development, including off-street parking and truck loading areas, and to provide industrial employment opportunities for residents of the County. The Light Industrial designation is located primarily within Community Districts and Urban Fringe areas and the Heavy Industrial designation is located along major transportation corridors and farther away from sensitive land uses. The purpose and allowed uses in the two industrial land use designations are described below.

Land Use Designation	Purpose and Allowed Uses
Light Industrial	This designation is intended for less intensive industrial and manufacturing operations that may be located within closer proximity to residential and commercial areas.
Heavy Industrial	This designation is intended for more intensive industrial and manufacturing operations that may be more intrusive to residential uses.

Open Space Designations

Two types of open space designations are included in the General Plan Update, which are described below. Open Space designations are located throughout the County with many of the areas situated around urban areas, and the largest area along the State Route 41 corridor west of Interstate 5. The Natural Resource Conservation designations are primarily concentrated in the southwestern portion of the County, although portions can be found in northern County along the Kings River and Cross Creek.

Land Use Designation	Purpose and Allowed Uses
Open Space	This designation is intended primarily for application around uses that require an open space buffer to increase separation between two separate types of land uses. Community Districts integrate Open Space areas for establishing residential connectivity to public and private recreational Open Space areas are also used to separate community residential areas from industrial and other intensive uses.
Natural Resource Conservation	This designation is intended primarily for application to those rural and urban areas of the County where it is necessary and desirable to provide permanent open spaces to protect natural high slope mountainous terrain, watercourses, drainage basins and sloughs which are necessary to safeguard the health, safety and welfare of the County residents. These areas also serve to maintain vital water flow courses and watersheds. Natural Resource Conservation designations prevent the intrusion of inharmonious types of land uses that could potentially disrupt the natural scenic beauty and resources of Natural Lands.

Other Urban Designations

There is one additional urban land use designation in the General Plan Update for public facility areas.

Land Use Designation	Purpose and Allowed Uses
Public	This designation is intended for application on properties where public or quasi-public facilities or operations provide services that are beneficial to the County or individual community, and not a private establishment. Public designations are used for school facilities, County and community parks, district municipal service facilities, utility power service facilities, cemeteries, clinics and other public service type establishments.

Proposed Land Use Changes from the 1993 General Plan. The primary land use changes from the existing General Plan include the creation of a Mixed Use designation, and the redefining of a large portion of agriculturally designated lands to other open space-related categories that more accurately reflect their current uses, or to protect natural resources, while still allowing agricultural operations to continue.

The new mixed use designation allows for a mixture of land uses to be incorporated on a single parcel or in business districts, and is intended to allow for greater flexibility in implementing smart growth principles. In addition, a substantial amount of previously defined agricultural land use would be changed to Natural Resource Conservation, Open Space, and Public land use classifications. The greatest change would be the re-defining of 65,015 acres of General Agriculture land to Natural Resource Conservation. Other changes include 8,019 acres of agriculturally designated land to Open Space, and 736 acres to Public land. The Natural Resource Conservation land use designation is intended to protect important natural resources in sensitive areas, or those areas topographically difficult for agriculture. This would include all land lying west of State Route 33 with slopes equal to or greater than 15 percent and the waterway channels of the Kings River and Cross Creek. Agricultural operations are allowed uses under both the Natural Resource Conservation and Open Space designations with agricultural operations remaining the prioritized land use in both designations. A land conversion summary since the 1993 General Plan is shown in Figure 2-5.

Proposed Land Use Element Policies. The following proposed Land Use policies and objectives have the potential to physically affect the environment by way of land use designation changes or physical alterations. The following is not an exhaustive list, but rather a summary of key objectives and policies as proposed within the Land Use Element.

LU Policy A1.1.1 *Land within the Coast Ranges located west of State Route 33 and having a slope of 15 percent or greater, according to Natural Resource Conservation Service Soil Classification data, shall be designated "Natural Resource Conservation" with a minimum parcel size of 40 acres.*

LU Policy A1.1.3 *Natural Resource Conservation designated areas within the Coast Ranges shall continue to allow agricultural operations that are currently listed as "Permitted Uses" of the General Agricultural-40 Zone District.*

LU Policy A1.1.4 *Natural Resource Conservation overlay designated areas within the Coast Ranges shall allow the following additional uses to be permitted under Site*

Plan Review: one family dwelling; gas and oil wells; open private recreation facilities; and small aircraft private landing strip.

LU Policy A1.1.5 *Natural Resource Conservation overlay designated areas within the Coast Ranges shall allow the following additional uses subject to Planning Commission discretionary approval of a Conditional Use Permit: Radio, television and cellular communication structures; and commercial wind and solar photovoltaic facilities.*

LU Policy A1.2.2 *Natural Resource Conservation designated areas along waterways shall allow irrigation, flood control and drainage facilities as "Permitted Uses."*

LU Policy A1.2.3 *Natural Resource Conservation designated areas along waterways shall allow the following additional uses to be permitted under Site Plan Review: hydroelectric facilities in connection with existing water delivery facilities.*

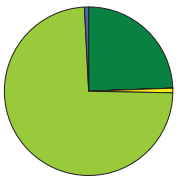
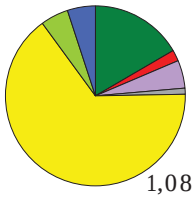
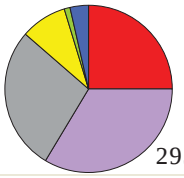
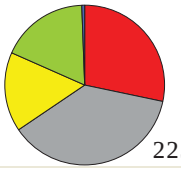
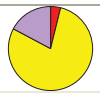
LU Policy A1.2.4 *Natural Resource Conservation overlay designated areas along waterways shall allow the following additional uses subject to Planning Commission discretionary approval of a Conditional Use Permit: surface mining operations; and installation of hydroelectric power generating facilities for the commercial production of electricity.*

LU Policy B2.1.5 *Encourage abandonment of underutilized public roads in sparsely populated rural areas.*

LU Objective B4.1 *Allow the permitting and construction of on-site farm employee housing uses that are incidental to an existing commercial farming operation.*

LU Objective B4.3 *Allow for the provision of a retiring farmer to retain their homesite, the creation of additional home sites for immediate family members who are actively engaged in a family farming operation on the same land, and creation of agriculturally related farm financing parcels.*

LU Objective D1.4 *Designate sufficient residential land to accommodate projected urban population growth to the year 2035 and encourage development of safe and affordable quality housing alternatives for all income levels while ensuring the proper payment of fair share impact fees.*

Land Use	New Land Use Classification		Total Acres	% Converted by Land Use
Agriculture	**Conversion to:**	Agriculture	23,090	23.30%
 97,526 ac.		Commercial	103	0.10%
		Mixed Use	40	0.04%
		Industrial	259	0.26%
		Residential	604	0.61%
		NRC & Open Space	72,694	73.32%
		Public	736	0.74%
		Total	**97,526**	**98.40%**
Residential	**Conversion to:**	Residential	630	0.64%
 1,080 ac.		Agriculture	296	0.30%
		Commercial	15	0.02%
		Mixed Use	41	0.04%
		Industrial	9	0.01%
		NRC & Open Space	42	0.04%
		Public	47	0.05%
		Total	**1,080**	**1.09%**
Commercial	**Conversion to:**	Commercial	93	0.09%
 293 ac.		Mixed Use	72	0.07%
		Industrial	97	0.10%
		Residential	21	0.02%
		NRC & Open Space	2	0.00%
		Public	8	0.01%
		Total	**293**	**0.30%**
Industrial	**Conversion to:**	Industrial	83	0.08%
 223 ac.		Commercial	63	0.06%
		Residential	36	0.04%
		NRC & Open Space	40	0.04%
		Public	1	0.00%
		Total	**223**	**0.22%**
***Other**	**Conversion to:**	Commercial	1	0.00%
 19 ac.		Residential	15	0.02%
		Mixed Use	3	0.00%
		Total	**19**	**0.02%**
		Overall Total	**99,141**	**100%**

Source: Kings County GIS 2035 Land Use Layer; *Other includes NRC, Open Space, and Public Land

Agriculture	Commercial	MixedUse	Industrial	Residential	NRC & OS	Public

Summary of Converted Land Since 1993

Figure 2-5

b. Circulation Element. The purpose of the Circulation Element is to determine a baseline of existing transportation and circulation conditions in Kings County, establish projected future circulation needs through 2035, and provide policy direction and implementation efforts to ensure the continued efficient movement of people and goods while simultaneously striving towards reduced vehicle emissions and associated greenhouse gases. The Regional Transportation Plan (RTP) for the County has identified several needed roadway and intersection improvements. The RTP identified four county roadway segments that are projected to be deficient - three along State Route 43, and one along State Route 4 – and subsequently identified improvements for these roadways including widening to either four-lane freeway or two or four-lane expressway. The Circulation element includes policies that support these major improvements.

The circulation systems within Kings County include streets & highways, public transit, rail, non-motorized, and aviation. Of these systems, streets & highways serve as the dominant mode of transportation, with highway traffic generally composed of farm-to-market, business and commuter trips. Local roads are utilized largely for movement of agricultural products, and to a lesser extent local travel to destinations where goods and services are provided. As a county that is predominantly rural in nature, limited alternative modes of transportation are currently available. However, some public transit options are available and the growing preference for Agricultural Industries Transportation System (AITS) and Kings Area Rural Transit (KART) Commuter Vanpool services have spread to several adjacent Counties and serves as a successful local approach to reducing the number of vehicles on the roadway and their associated emissions. Public bus transit services are provided by the Kings Area Rural Transit (KART) and the Corcoran Area Transit (CAT). Rail service within the County includes Amtrak Passenger rail service and freight rail service. Public, private and military aviation facilities exist within the County, with the Hanford Municipal Airport and Corcoran Airport serving as the publicly accessible sites, and Naval Air Station Lemoore as a strategic military installation for the western United States. All together in 2008, the County contains approximately 27 miles of interstate freeway, 130 miles of state facilities, 956 miles of County roads, and 337 miles of city streets. There are two public use airports and approximately 67 miles of rail lines within the County, including the Amtrak "San Joaquin" corridor.

The following policies selected from the Circulation Element have the potential to physically affect the environment by way of physical alterations to the existing environment. The following is not an exhaustive list, but rather a summary of key goals, objectives and policies.

C Policy A1.1.6 *Work closely with Caltrans, Kings County Association of Governments, and the City of Hanford to develop an alternative design for the 13th Avenue and State Route 198 interchange to enhance traffic safety and accommodate future growth demands.*

C Policy A1.2.2 *Establish a roadway plan to preserve and accept right-of-way dedications along the 13th Avenue and State Route 198 interchange.*

C Policy A1.2.3 *Establish transportation related development impact fees in coordination with the City of Hanford to create a funding mechanism for construction of the alternative 13th Avenue/State Route 198 interchange design.*

C Policy A1.2.4 *Evaluate the Grangeville Boulevard and State Route 41 interchange to determine future roadway plan needs and allow for earliest preservation of right-of-way.*

C Policy A1.3.3 *Implement traffic operational improvements such as road widening, signals, and lanes to maximize service and efficiency.*

C Objective C1.1 *Maintain, upgrade and complete a regional system of Highways and Streets throughout the County that is convenient, safe, cost effective and efficient, and continues to meet the needs of highway users.*

C Policy C1.4.1 *Identify and plan for pedestrian and bicycle pathways in strategic locations within Community Districts to connect residents to commercial businesses, community gathering places and educational facilities.*

c. Noise Element. The purpose of the Noise Element is to identify the existing and projected future noise environment in Kings County, and provide policy direction and implementation efforts to protect County residents from exposure to excessive noise levels. This element provides the basis for comprehensive local policies to control and abate environmental noise from stationary and mobile noise sources, and reduce conflicts between noise and noise-sensitive land uses.

Noise contours for military activities originating from the new Naval Air Station Lemoore have been updated to reflect current F/A-18 Super Hornet aircraft operations. The newly updated noise contours represent the most significant noise change since the previous general plan update adoption in 1993. Please refer to Figure 2-6 for the newly established noise contours. Generally, the goals, objectives and policies within the Noise Element are intended to mitigate noise impacts. The primary goals of the Noise Element are as follows.

N GOAL A1 *Protect existing and future residents of Kings County from the harmful effects of exposure to excessive noise. More specifically, to protect existing noise-sensitive land uses from new uses that would generate noise levels which are incompatible with those uses, and to discourage new noise sensitive land uses from being developed near sources of high noise levels.*

N GOAL B1 *Protect the economic base of Kings County by preventing the encroachment of noise-sensitive land uses into areas affected by existing noise-producing uses. More specifically, to recognize that noise is an inherent byproduct of many land uses, including agriculture, and to prevent new noise-sensitive land uses from being developed in areas affected by existing noise-producing uses.*

N GOAL C1 *Provide sufficient noise exposure information so that existing and potential noise impacts may be effectively addressed in the land use planning and project review processes, and allow flexibility in the development of infill properties which may be located in elevated noise environments.*

Additionally, the County has revised the Noise Standards for various land uses. Table 2-2 below shows the noise standards set forth by the 2035 General Plan for new uses affected by transportation noise, while Table 2-3 shows noise standards for new uses affected by non-transportation sources. Land uses such as residential, commercial, industrial, and parks have more stringent noise standards as compared to the 1993 Noise Element. Figure 2-6 shows the new noise contours for Naval Air Station Lemoore.

Table 2-2. Noise Standards for New Uses Affected by Transportation Noise Sources

New Land Use	Sensitive[1] Outdoor Area - CNEL	Sensitive Interior[2] Area - CNEL	Notes
Residential	60	45	5
Residences in Ag. Zones	65	45	6
Transient Lodging	65	45	3,5
Hospitals & Nursing Homes	60	45	3, 4, 5
Theaters & Auditoriums	---	35	3
Churches, Meeting Halls Schools, Libraries, etc.	60	40	3
Office Buildings	65	45	3
Commercial Buildings	65	50	3
Playgrounds, Parks, etc.	70	---	
Industry	65	50	3

Notes:

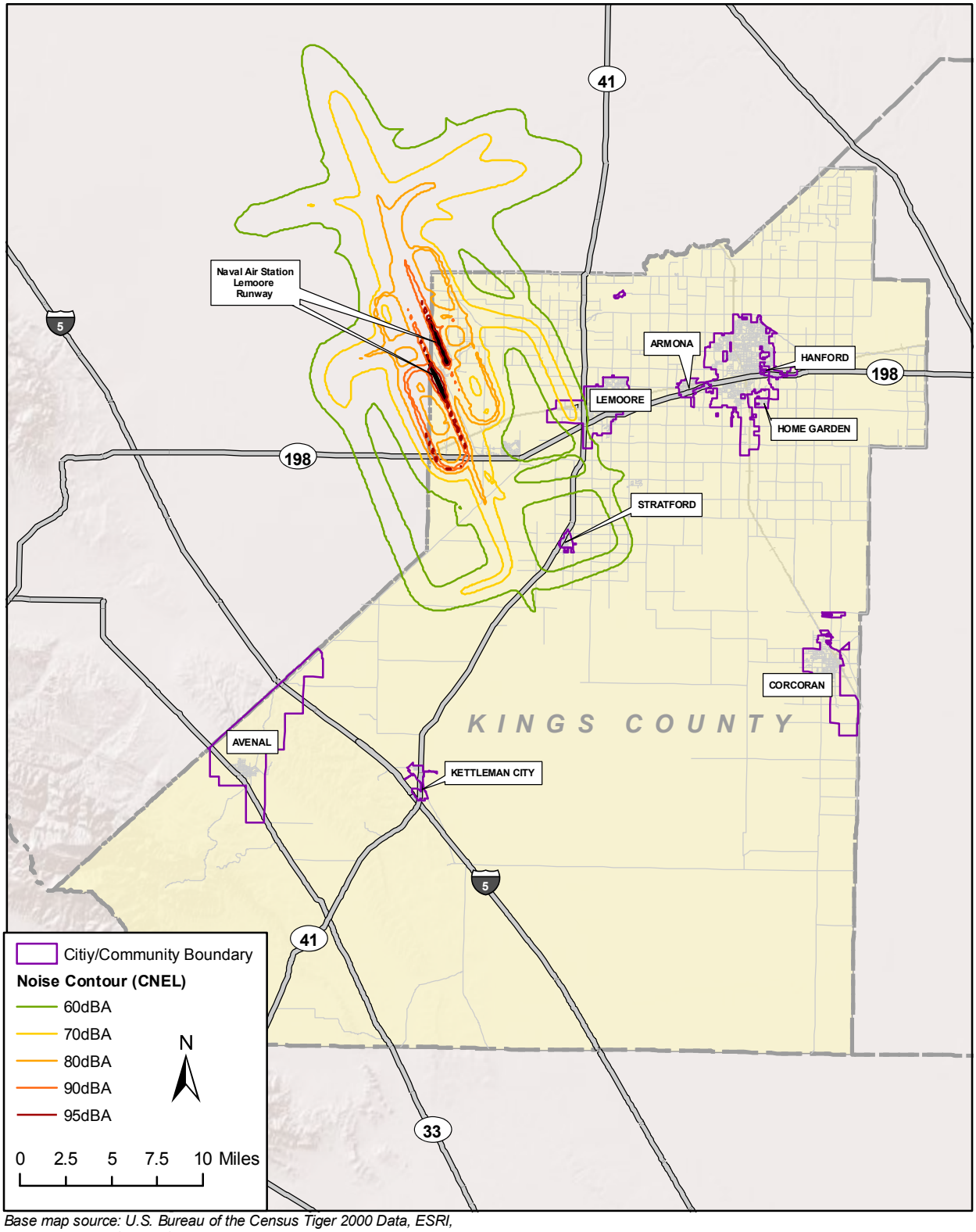
1. *Sensitive areas are defined acoustic terminology section.*
2. *Interior noise level standards are applied within noise-sensitive areas of the various land uses, with windows and doors in the closed positions.*
3. *Where there are no sensitive exterior spaces proposed for these uses, only the interior noise level standard shall apply.*
4. *Hospitals are often noise-generating uses. The exterior noise level standards for hospitals are applicable only at clearly identified areas designated for outdoor relaxation by either hospital staff or patients.*
5. *If this use is affected by railroad or aircraft noise, a maximum (Lmax) noise level standard of 70 dB shall be applied to all sleeping rooms with windows closed to reduce the potential for sleep disturbance during nighttime noise events.*
6. *Due to the noise-generating nature of agricultural activities, it is understood that residences constructed on agriculturally-designated land uses may be exposed to elevated noise levels. As a result, a 65 dB CNEL exterior noise level standard is applied to noise-sensitive outdoor areas of these uses.*

Table 2-3. Non-Transportation Noise Standards Average (Leq) / Maximum (Lmax)[1]

Receiving Land Use	Interior[3]		Outdoor Area[2]	Notes
	Daytime	Nighttime	Day & Night	
All Residential	55 / 75	50 / 70	35 / 55	
Transient Lodging	55 / 75	---	35 / 55	4
Hospitals & Nursing Homes	55 / 75	---	35 / 55	5, 6
Theaters & Auditoriums	---	---	30 / 50	6
Churches, Meeting Halls, Schools, Libraries, etc.	55 / 75	---	35 / 60	6
Office Buildings	60 / 75	---	45 / 65	6
Commercial Buildings	55 / 75	---	45 / 65	6
Playgrounds, Parks, etc.	65 / 75	---	---	6
Industry	60 / 80	---	50 / 70	6

Notes:

1. *The Table N-8 standards shall be reduced by 5 dB for sounds consisting primarily of speech or music, and for recurring impulsive sounds. If the existing ambient noise level exceeds the standards of Table N-8, then the noise level standards shall be increased at 5 dB increments to encompass the ambient.*
2. *Sensitive areas are defined acoustic terminology section.*
3. *Interior noise level standards are applied within noise-sensitive areas of the various land uses, with windows and doors in the closed positions.*
4. *Outdoor activity areas of transient lodging facilities are not commonly used during nighttime hours.*
5. *Hospitals are often noise-generating uses. The exterior noise level standards for hospitals are applicable only at clearly identified areas designated for outdoor relaxation by either hospital staff or patients.*
6. *The outdoor activity areas of these uses (if any), are not typically utilized during nighttime hours.*



Base map source: U.S. Bureau of the Census Tiger 2000 Data, ESRI, 2009, and Kings County Community Development Agency, 2009.

Proposed Noise Contours for Naval Air Station Lemoore

Figure 2-6

d. Health and Safety Element. The intent of the Health and Safety Element is to reduce or eliminate long term risk to people and property from natural or manmade hazards. Traditionally viewed as an element that focuses on planning for catastrophes, this element is now expanded to include community health and community safety related issues that are more commonly associated with the built environment as affecting the health and safety of residents living within the County. This element concentrates on those hazards and community factors which are within the responsibility of the County to mitigate. These include land use decisions and patterns of development that directly and indirectly affect the health, wellbeing and personal/property protection of county residents, and the mitigation of potential natural hazards. The Health and Safety Element describes the location and extent of known hazards, and provides maps of hazardous land uses and evacuation routes. Hazards addressed include seismic and other geologic hazards, flooding, hazardous materials, and susceptibility to wildfires.

The Health and Safety Element is the primary vehicle for relating County land use policies to local safety planning, and is comprised of three major components that include "Natural Hazards", "Community Health", and "Community Safety". While the Land Use Element identifies areas where hazardous land uses may be located, the Health and Safety Element contains policies for determining acceptable levels of public risk imposed by these land uses, as well as policies for mitigating the effects of natural or manmade catastrophes. The goals of the Health and Safety Element are as follows.

HS GOAL A1	*Preventative measures reduce the potential impacts of natural hazards upon peoples lives, property, and the environment.*
HS GOAL A2	*Minimize loss of life and personal property caused by geologic hazards.*
HS GOAL A3	*Minimize impacts of extreme weather related natural disasters to agriculture and the economies of communities.*
HS GOAL A4	*Prevent unnecessary exposure of people and property to flood damage.*
HS GOAL B1	*Promote the health and well being of County residents, and support healthy living environments, physical activity opportunities, medical services, and readily available nutritious food sources.*
HS GOAL C1	*Ensure the protection and well being of residents, visitors and businesses, and enables long term sustainability for future generations.*
HS GOAL C2	*Support Countywide safety through adequate law enforcement, quality fire protection, emergency preparedness, and accessibility in times of emergency.*
HS GOAL C3	*Ensure Naval Air Station Lemoore, public airports and special use heliports remain operationally effective and free from encroachment of incompatible land uses, while surrounding land use compatibility serves to protect people and property from unnecessary exposure and hazards related to aircraft.*

e. Resource Conservation Element. The Resource Conservation Element establishes policies for the conservation of various resources including soils, water, plant and wildlife habitat, minerals, and air quality. The Resource Conservation Element has been updated with more informative discussion and policy guidance on valued resources within the County.

The Element includes a policy framework for Water, Natural Lands, Agriculture, Prime Soils, Native Plant & Animal Habitat, Threatened & Endangered Species, Fishing, Energy, Mineral, and Archaeological/Cultural/Historical resources. A new Biological Resources Survey is included that substantially updates the County's previous 1993 Biological Resources Survey, and provides up to date regulatory requirements and species habitat information. An Agricultural Land Conversion Study was also prepared to analyze the County's loss of prime agricultural land and includes options for mitigating the loss of agricultural land resources. Policies addressing agricultural mitigation represent the most significant change which seeks to enhance preservation of the County's valued agricultural resources. The primary goals for the Resource Conservation Element are as follows.

RC GOAL A1	*Beneficially use, efficiently manage, and protect water resources while developing strategies to capture additional water sources that may become available to ensure long-term sustainable water supplies for the region.*
RC GOAL A2	*Protect natural waterway channels that serve as part of the County's critical floodwater conveyance system.*
RC GOAL B1	*Maintain viable and productive agricultural land within the County, and ensure the long term preservation of the County's agricultural resources continue to provide a sustainable food supply and supports a vibrant local agricultural economy.*
RC GOAL C1	*Encourage the conservation of soil resources that are critical to the long-term protection and sustainability of the County's agricultural productivity and economy.*
RC GOAL D1	*Preserve land that contains important natural plant and animal habitats.*
RC GOAL E1	*Balance the protection of the County's diverse plant and animal communities with the County's economic needs.*
RC GOAL F1	*Manage natural stream environments to provide protection for fish habitat.*
RC GOAL H1	*Support the extraction of mineral resources in a manner that will not degrade the environment or conflict with other land uses.*
RC GOAL I1	*Preserve significant historical and archaeological sites and structures that represent the ethnic, cultural, and economic groups that have lived and worked in Kings County.*

f. Open Space Element. The Open Space Element describes open space classifications, limitations on types and intensities of permissible uses, and special development and permit review requirements. The expansion and improvement of existing recreational areas is promoted. The updated Open Space Element includes additional information and policies for the preservation of agriculture, scenic resources, outdoor recreation, and open space buffers around communities and the Naval Air Station Lemoore. The goals of the Open Space Element are as follows.

OS GOAL A1 *Preserve agricultural land as open space.*

OS GOAL B1 *Maintain and protect the scenic beauty of Kings County*

OS GOAL C1 *Preserve the visual identities of Community Districts by maintaining open space separations between urban areas.*

OS GOAL D1 *Provide for parks, recreation and open space that will serve the current and future needs of County residents and visitors.*

OS GOAL E1 *Maintain open space areas near Naval Air Station Lemoore and underlying low level military airspace corridors and ranges.*

OS GOAL F1 *Ensure that Community Districts integrate adequate open space as part of their Community Plans.*

g. Air Quality Element. The General Plan Update includes an Air Quality Element, which is not part of the 1993 General Plan. This new Air Quality Element establishes a baseline of greenhouse gas emissions within the County, and defines a coordinated link between the County's planning efforts, regional Blueprint planning efforts, and the broader statewide greenhouse gas reduction efforts. Air Quality Element policies are also intended to reinforce the County's land use, circulation, and resource conservation policies which aim to preserve agricultural land, direct urban growth to cities and community districts, and establish transportation alternatives that reduce vehicle miles traveled.

AQ GOAL A1 *Achieve effective communication, cooperation, coordination and education in developing and implementing countywide and regional programs to improve air quality and reduce potential climate change impacts.*

AQ GOAL B1 *Improve Air Quality, Land Use and Transportation Planning integration and reduce impacts through appropriate project location, design and application of best available technologies.*

AQ GOAL C1 *Use Air Quality Assessment and Mitigation programs and resources of the SJVAPCD and other agencies to minimize air pollution, related public health effects, and potential climate change impacts within the County.*

AQ GOAL D1	*Invest in more efficient and effective transportation infrastructure, fleet management and support for trip reduction programs to reduce traffic congestion, vehicle trips and the need for costly new or expanded roadways.*
AQ GOAL E1	*Minimize air emissions and potential climate change impacts related to energy consumption in the County.*
AQ GOAL F1	*Minimize exposure of the public to hazardous air pollutant emissions, particulates and noxious odors from freeways, major arterial roadways, industrial, manufacturing, and processing facilities.*
AQ GOAL G1	*Reduce Kings County's proportionate contribution of greenhouse gas emissions and the potential impact that may result on climate change from internal governmental operations and land use activities within its authority.*

h. Community Plans. The four unincorporated communities of Armona, Home Garden, Kettleman City, and Stratford make up the County's only urbanized community areas that are served by special districts. These community plan areas would accommodate the County's unincorporated urban growth, as growth within "City Fringe" areas continues to be directed to the respective City, and "Rural Interface" areas remain restricted with no new urban growth designations since these areas are not served by community services or public utility districts that provide potable water, wastewater, and other community level services.

The primary focus of each community plan is to integrate smart growth principles into community revitalization efforts that aim to create or strengthen a centralized community core. New "Mixed Use" land use designations are integrated along with prioritization of centralized services and pedestrian connectivity in each community core.

Armona Community Plan

The Armona Community Plan designates the general distribution, location and intensity of land uses within the community and its future growth areas for residential, commercial, industrial, and public facilities. These designations provide the framework for land use decisions within the community and incorporate substantial changes to address the community's long term planning efforts. The community plan emphasizes concentrated development and revitalization within the existing community boundary. New compact residential growth with more emphasis on community walkability and Downtown Commercial Core revitalization is intended to meet the daily needs of residents while also drawing sales from travelers and visitors.

The Armona Community Plan Land Use Map incorporates land use changes to establish General Plan consistency with zoning. The map also displays the Primary and Secondary Sphere of Influence as defined by the Local Agency Formation Commission of Kings County (LAFCo). All planned urban areas are already located within the Primary Sphere of Influence as adopted by LAFCo and effective January 1, 2008. The Secondary Sphere of Influence serves

as an area of interest to the community and Armona Community Services District (ACSD), and is also used to define the Planning Area of this Community Plan.

The Armona Community Plan was developed to be consistent with the overall goals, objectives and policies of the 2035 General Plan. Several of the 2035 General Plan goals, objectives and policies are included within the Community Plan and are intended to implement the broader goals of the General Plan. The Community Plan also includes updated land use designations intended to implement proposed General Plan goals and policies. The changes in land use designations from the 1993 General Plan to the Armona Community Plan are summarized in Table 2-4. The existing and proposed Armona Land Use Designation Maps are shown in Figure 2-7 and 2-8. Currently vacant parcels where growth could occur are shown in Figure 2-9.

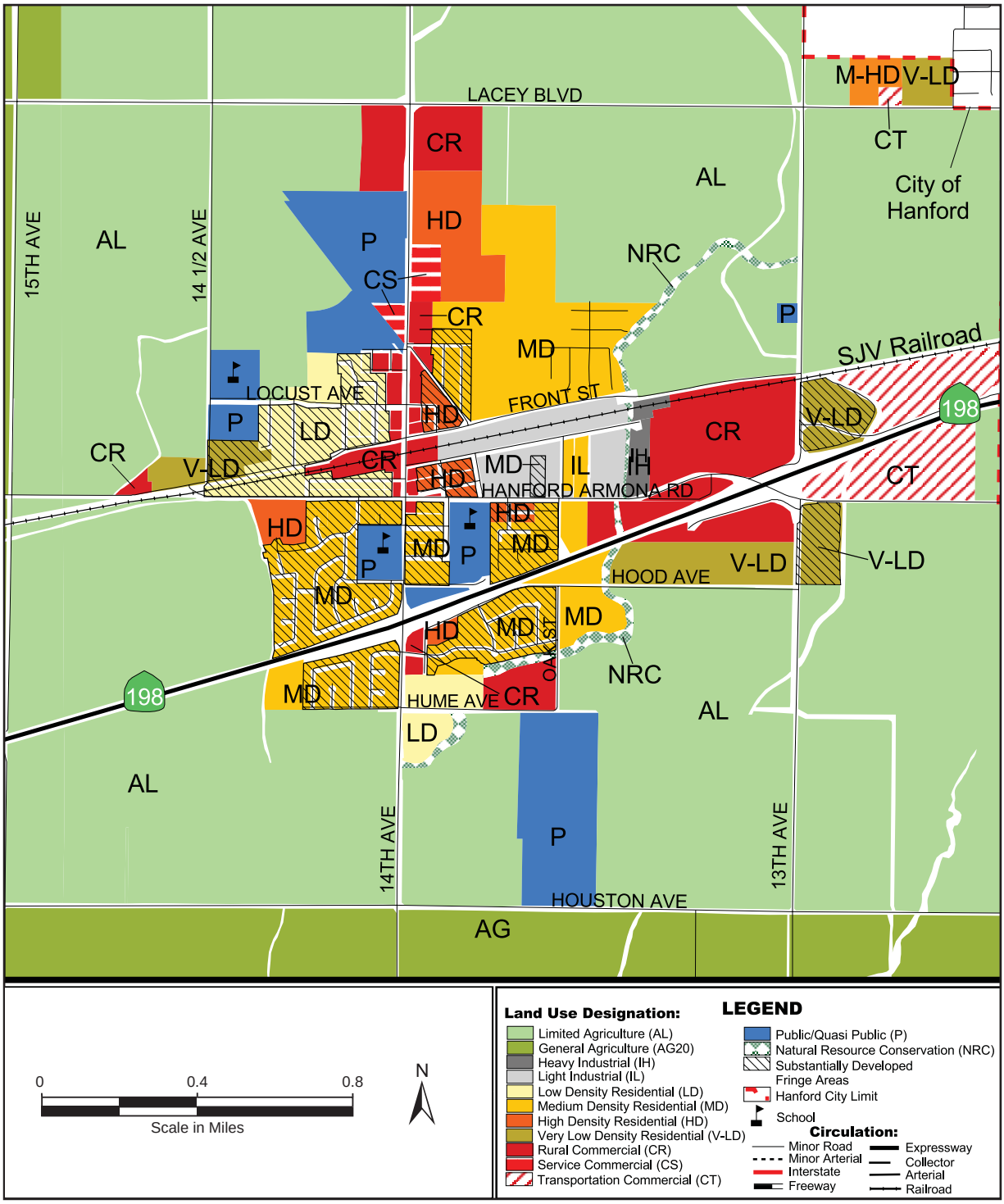
Table 2-4. Comparison of Land Use Acreage of 1993 General Plan and Armona Community Plan

Land Use Type	1993 General Plan Acres	Community Plan Acres
Residential	503.23	494.04
Commercial	160.43	96.08
Industrial	71.92	27.45
Mixed Use	0	92.70
Public/Quasi Public	381.66	192.43
Open Space/Natural Resource	26.34	47.86
Total	**1,243.58**	**950.56**

As shown in Table 2-4, the total acreage for residential decreased by approximately nine acres. However, the Community Plan actually increased residential acreage because it adds a Mixed Use element in which high density residential units can be developed, thereby increasing the overall available units per person. In addition, commercial and industrial designations were both reduced to accommodate the new Mixed Use. It should be noted however, that commercial uses are allowed in Mixed Use designations.

Home Garden Community Plan

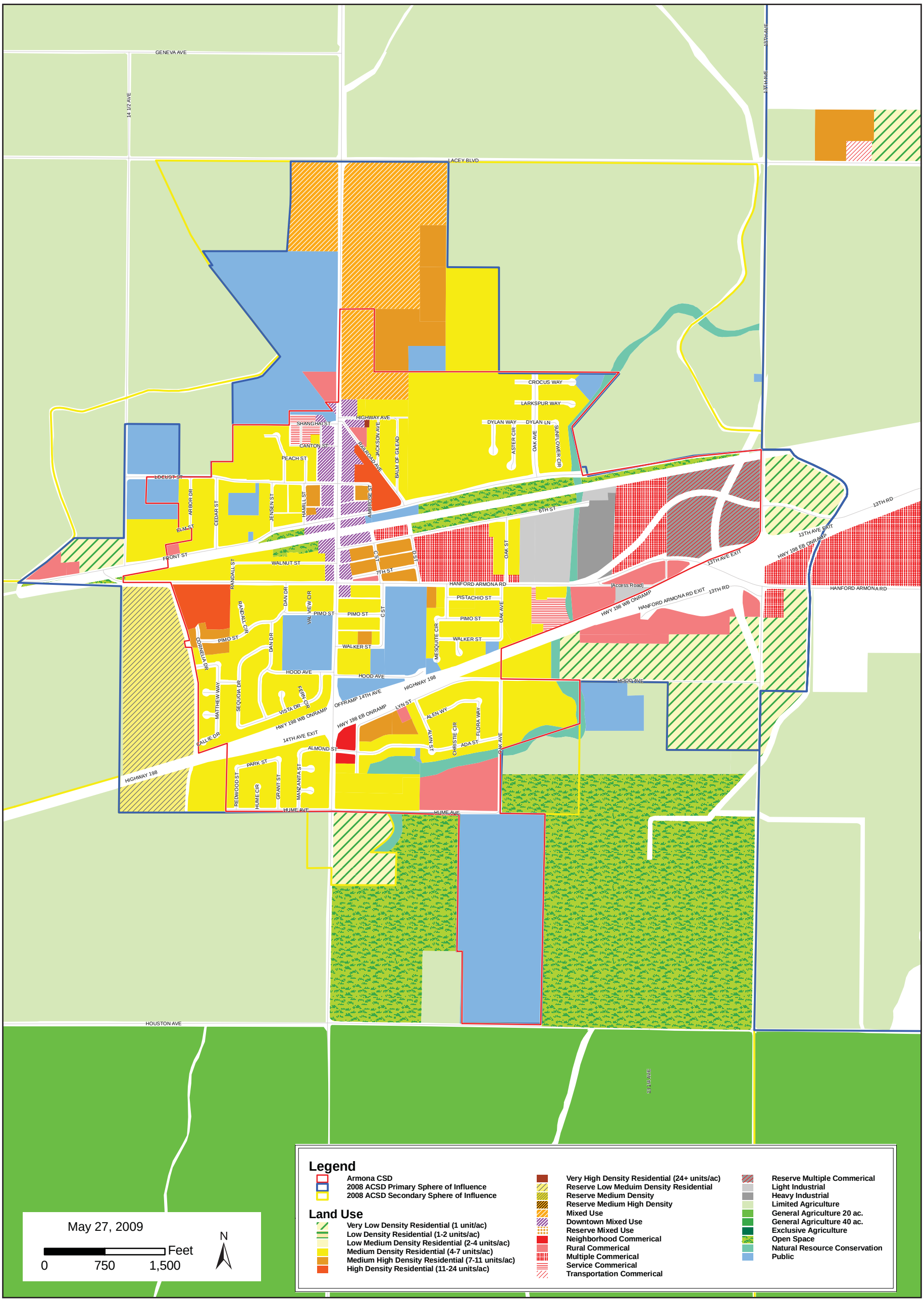
The Home Garden Community Plan includes the general distribution, location and intensity of land uses within the community and its future growth areas for residential, commercial, and public facilities. It includes new compact residential growth with greater emphasis on community walkability to provide more desirable and affordable housing units, and a revitalized commercial core centered at 10th Avenue and Home Avenue. The community contains substantial Public zoned land due to the presence of the Calvary Cemetery, Gardenside Elementary School, Home Garden Community Service District (HGCSD) properties, and the Central Valley Family Health- Home Garden Clinic.



Base map source: Kings County Community Development Agency, 2004.

Existing Armona Land Use Designation Map

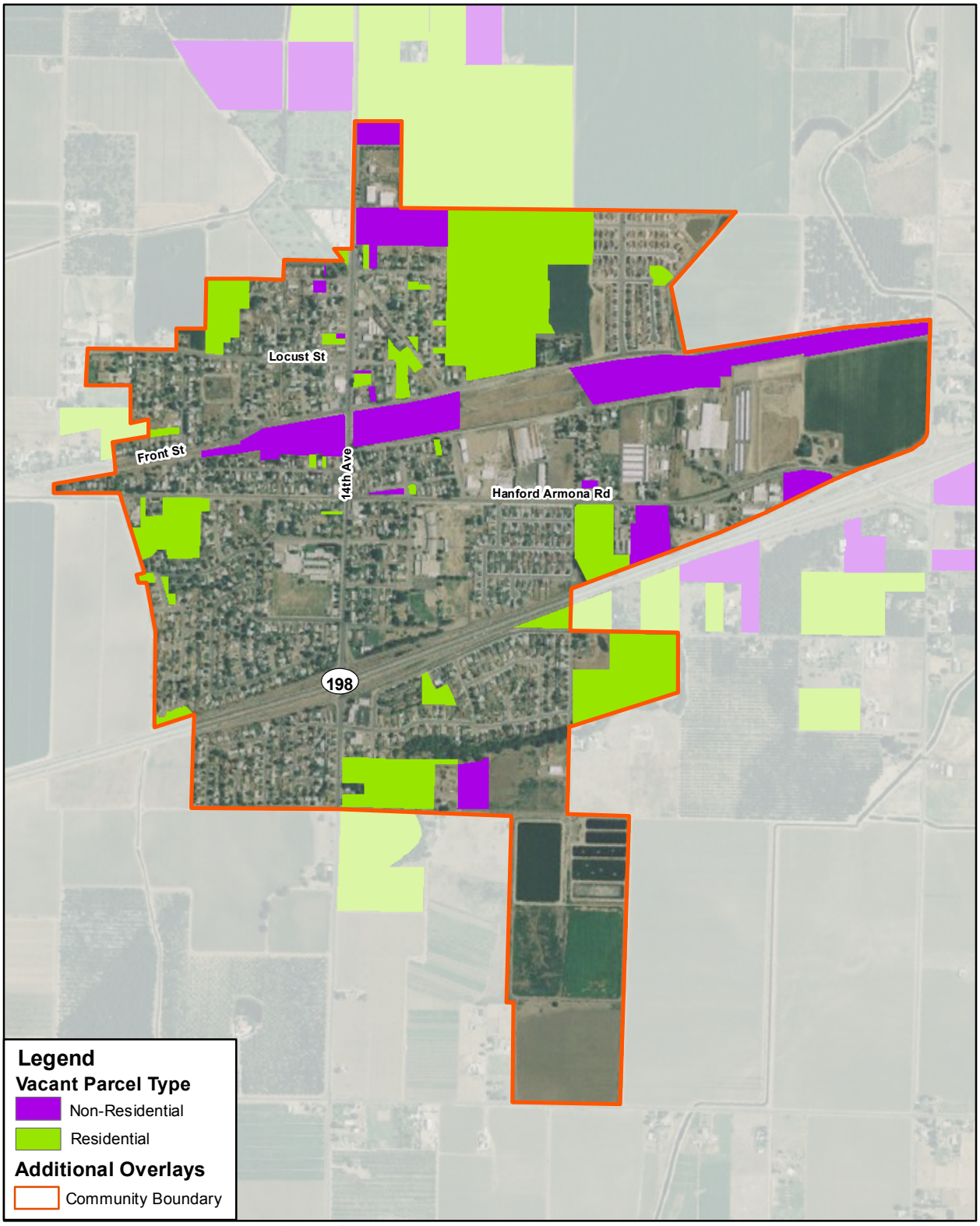
Figure 2-7



Base map source: Kings County Community Development Agency, 2009.

Proposed Armona Land Use Designation Map

Figure 2-8



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Vacant Residential and Non-Residential Parcels within Armona

Figure 2-9

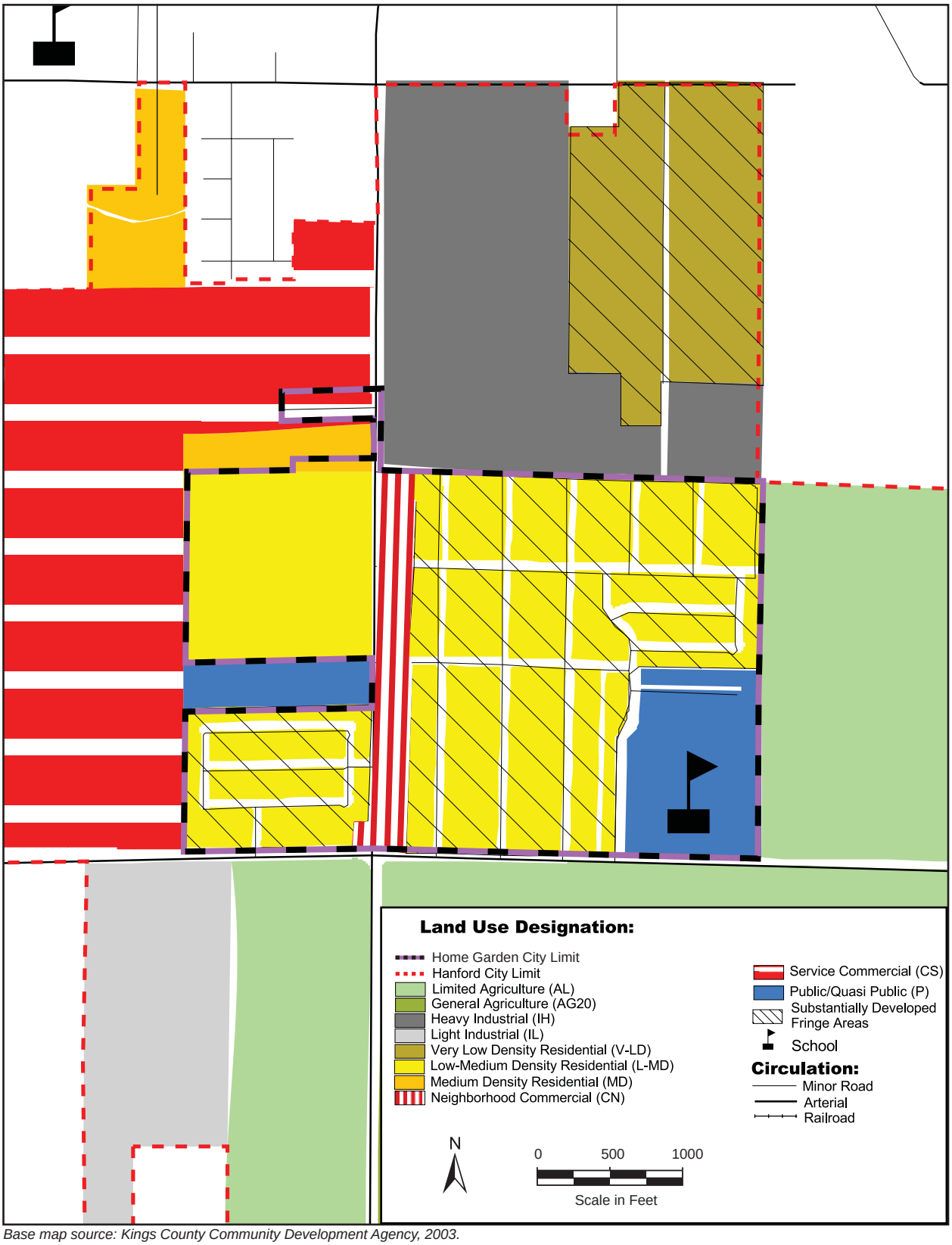
The Home Garden Community Plan Land Use Map incorporates land use changes to ensure consistency between the proposed General Plan and zoning. The map also displays the Primary Sphere of Influence as defined by LAFCo. This Community is unique in Kings County since a Secondary Sphere of Influence has not been established. This is due to the entire community being encompassed by the City of Hanford's Primary Sphere of Influence. All planned urban areas within the community are located within the Primary Sphere of Influence as adopted by LAFCo and effective January 1, 2008.

The Home Garden Community Plan is intended to be consistent with the overall goals, objectives and policies of the 2035 General Plan. Several of the 2035 General Plan goals, objectives and policies are included within the Community Plan and are intended to implement the broader goals of the General Plan. The Community Plan also includes updated land use designations intended to implement proposed General Plan goals and policies. The changes in land use designations from the 1993 General Plan to the Home Garden Community Plan are summarized in Table 2-5. The existing and proposed Home Garden Land Use Designation Maps are shown in Figure 2-10 and 2-11. Currently vacant parcels where growth could occur are shown in Figure 2-12.

Table 2-5. Comparison of Land Use Acreage of 1993 General Plan and Home Garden Community Plan

Land Use Type	1993 General Plan Acres	Community Plan Acres
Residential	145.75	152.25
Commercial	13.74	9.56
Industrial	0	0
Mixed Use	0	3.34
Public/Quasi Public	41.36	58.08
Open Space/Natural Resource	0	0
Total	**200.85**	**223.23**

As shown by Table 2-5, the Home Garden Community Plan increases the total acreage for residential uses and public lands. In addition, the Community Plan includes a new Mixed Use designation that encompasses 3.34 acres. Although the total acreage of commercial uses has decreased, commercial uses are permitted within the Mixed Use designation. More generally, the total acreage of the Community Plan area has increased by approximately 23 acres to accommodate more residential and commercial activity as well as new public facilities.



Base map source: Kings County Community Development Agency, 2003.

Existing Home Garden Land Use Designation Map Figure 2-10

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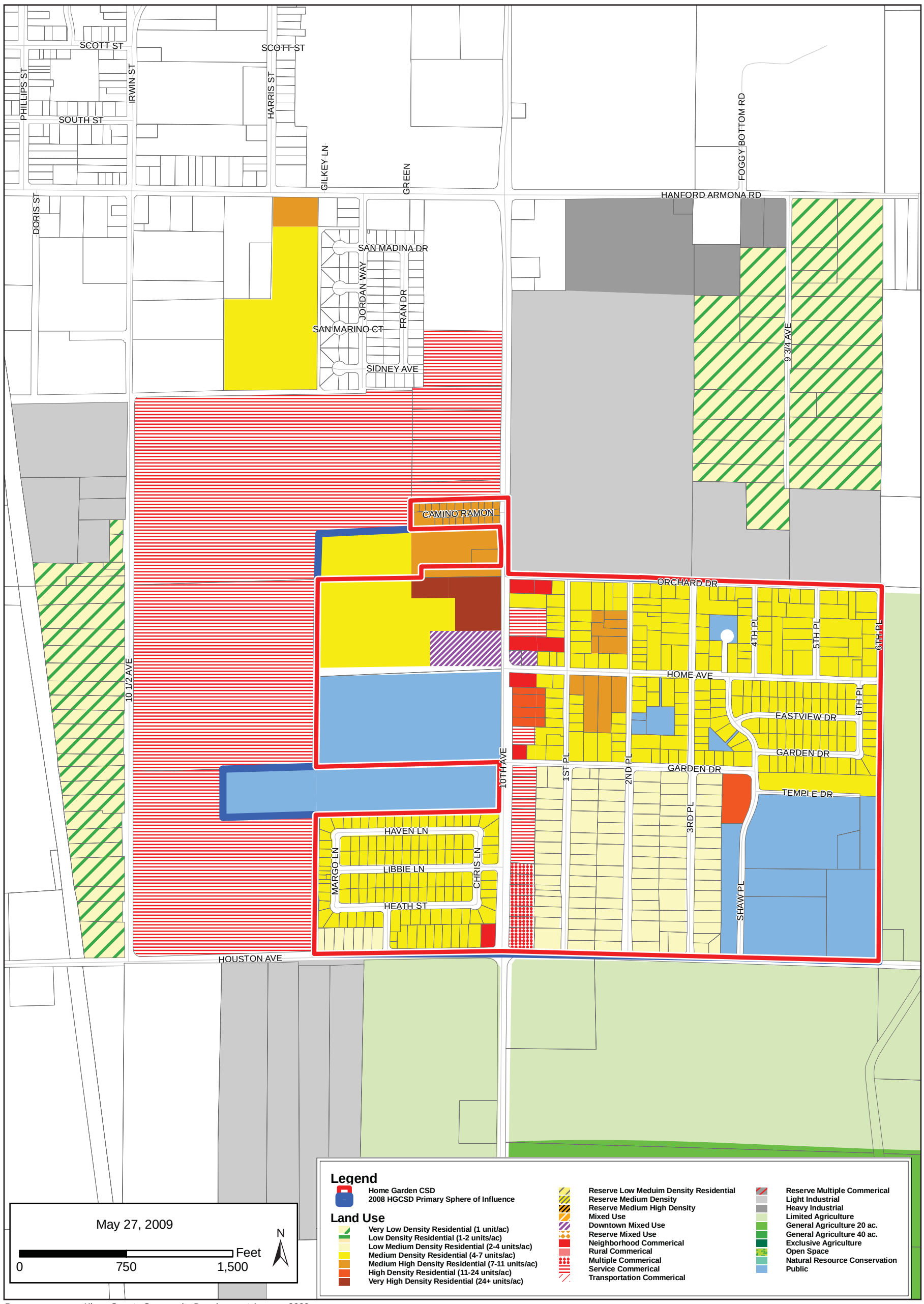
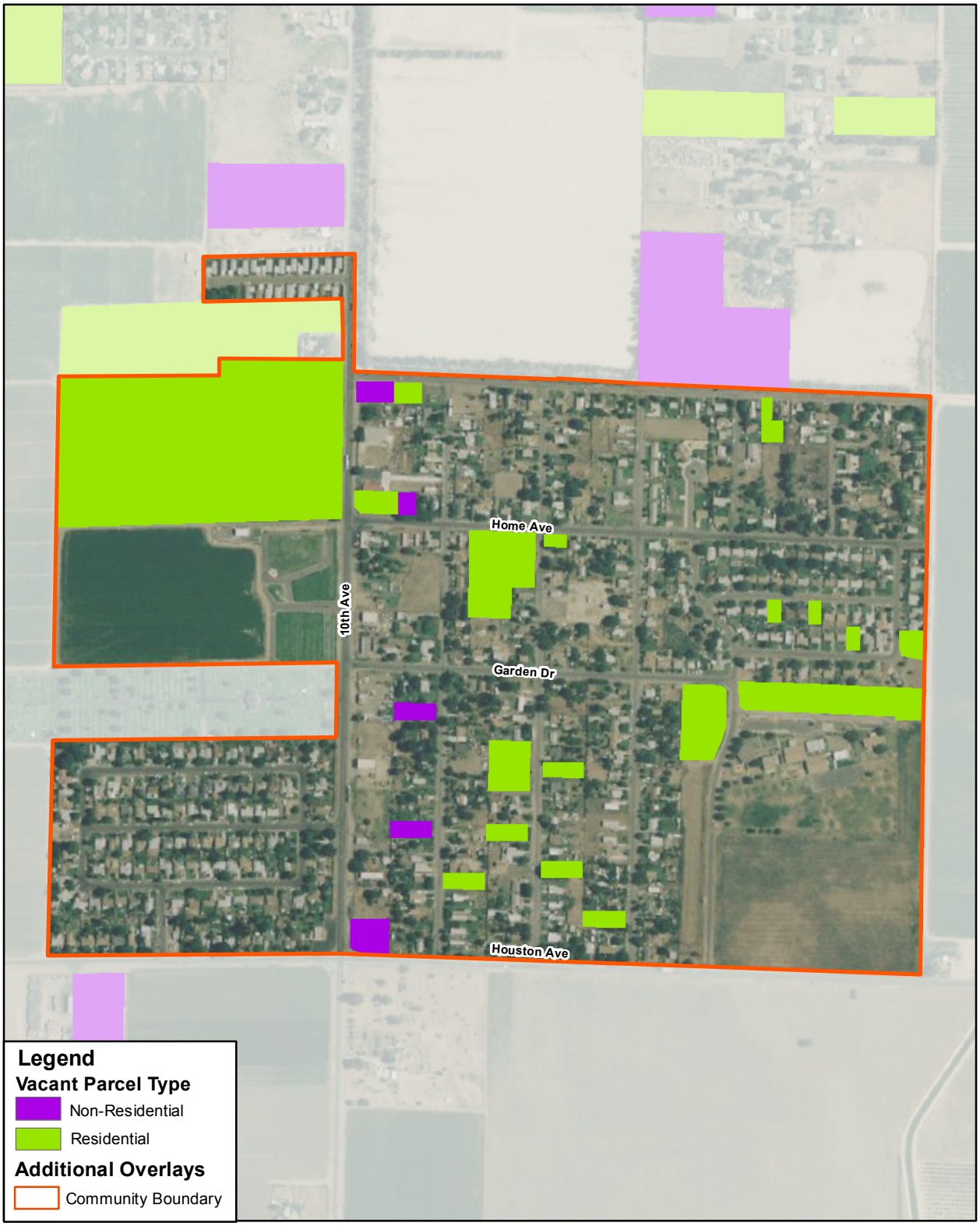


Base map source: Kings County Community Development Agency, 2009.

Proposed Home Garden Land Use Designation Map

Figure 2-11



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Vacant Residential and Non-Residential Parcels within Home Garden

Figure 2-12

Kettleman City Community Plan

The Kettleman City Community Plan Land Use guides the general distribution, location and intensity of land uses within the community and its future growth areas. Land use designations include residential, commercial, industrial, and public facilities. The plan incorporates substantial changes that include new compact residential growth on smaller lot sizes to provide more affordable housing units, and a Downtown Commercial Area that is intended to meet the daily needs of residents and is centrally located within walking distance of many residents, and draws sales from highway travelers.

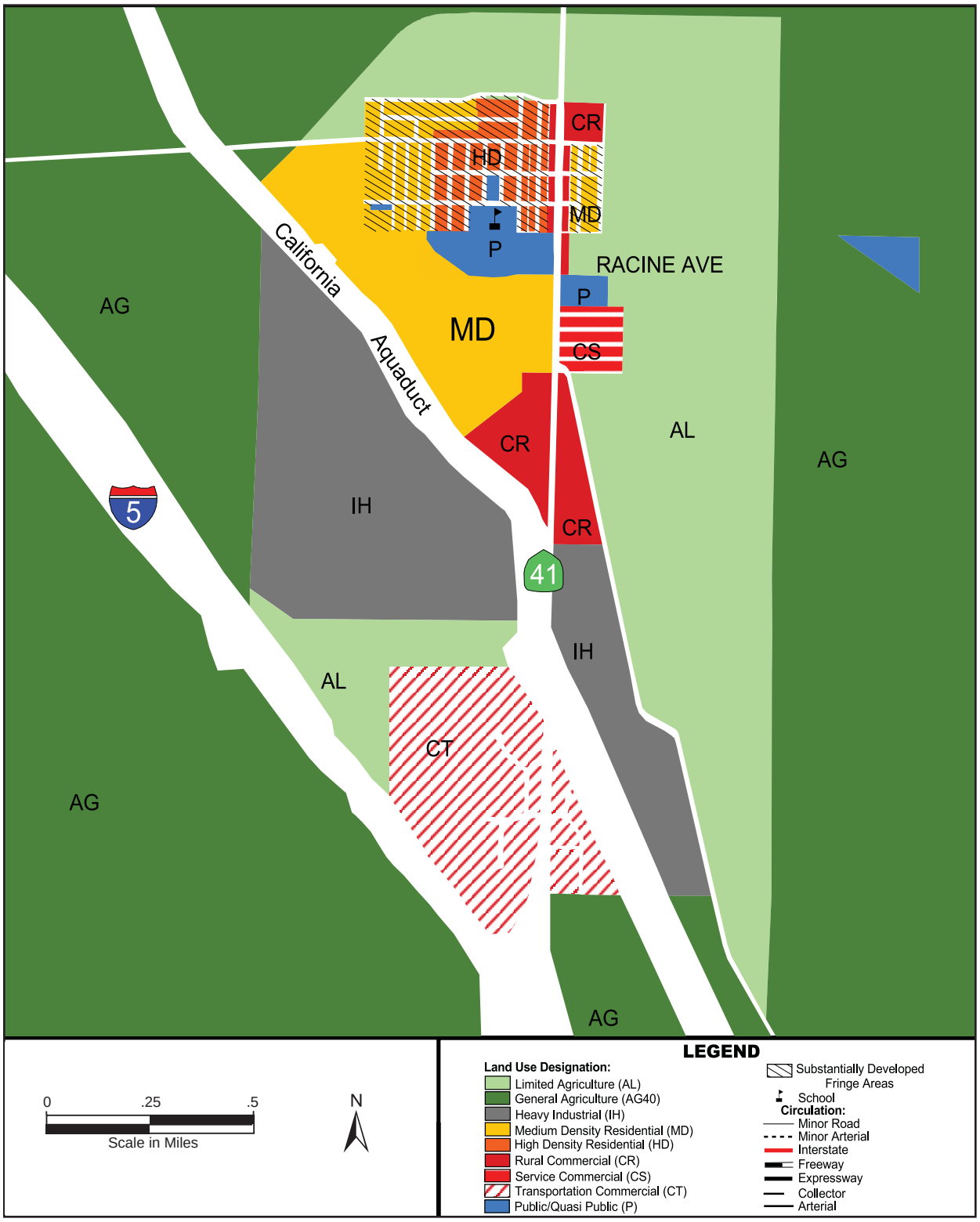
The Kettleman City Community Plan Land Use Map incorporates land use changes to ensure consistency between the General Plan and zoning. The map also displays the Primary and Secondary Sphere of Influence as defined by LAFCo. All planned urban areas should be recommended to LAFCo for inclusion in the Primary Sphere of Influence. The Secondary Sphere of Influence serves as an area of interest to the community and Kettleman Community Services District (KCCSD), and is also used to define the Planning Area of this Community Plan.

The Kettleman City Community Plan is intended to be consistent with the overall goals, objectives and policies of the 2035 General Plan. Several of the 2035 General Plan goals, objectives and policies are included within the Community Plan and are intended to implement the broader goals of the General Plan. The Community Plan also includes updated land use designations intended to implement proposed General Plan goals and policies. The changes in land use designations from the 1993 General Plan to the Kettleman City Community Plan are summarized in Table 2-6. The existing and proposed Kettleman City Land Use Designation Maps are shown in Figure 2-13 and 2-14. Currently vacant parcels where growth could occur are shown in Figure 2-15.

Table 2-6. Comparison of Land Use Acreage of 1993 General Plan and Kettleman City Community Plan

Land Use Type	1993 General Plan Acres	Community Plan Acres
Residential	170.35	258.64
Commercial	186.39	208.04
Industrial	303.14	303.14
Mixed Use	0	7.41
Public/Quasi Public	30.08	38.64
Open Space/Natural Resource	0	43.02
Total	**689.96**	**858.89**

As shown by Table 2-6, the total acreage of residential uses has substantially increased to accommodate more residential development and meet the needs of the Kettleman City population. In addition, commercial designations increased to accommodate more commercial activity. The Community Plan also includes 7.41 acres of Mixed Use, which would accommodate both residential and commercial uses.



Base map source: Kings County Community Development Agency, 2004.

Existing Kettleman City Land Use Designation Map Figure 2-13

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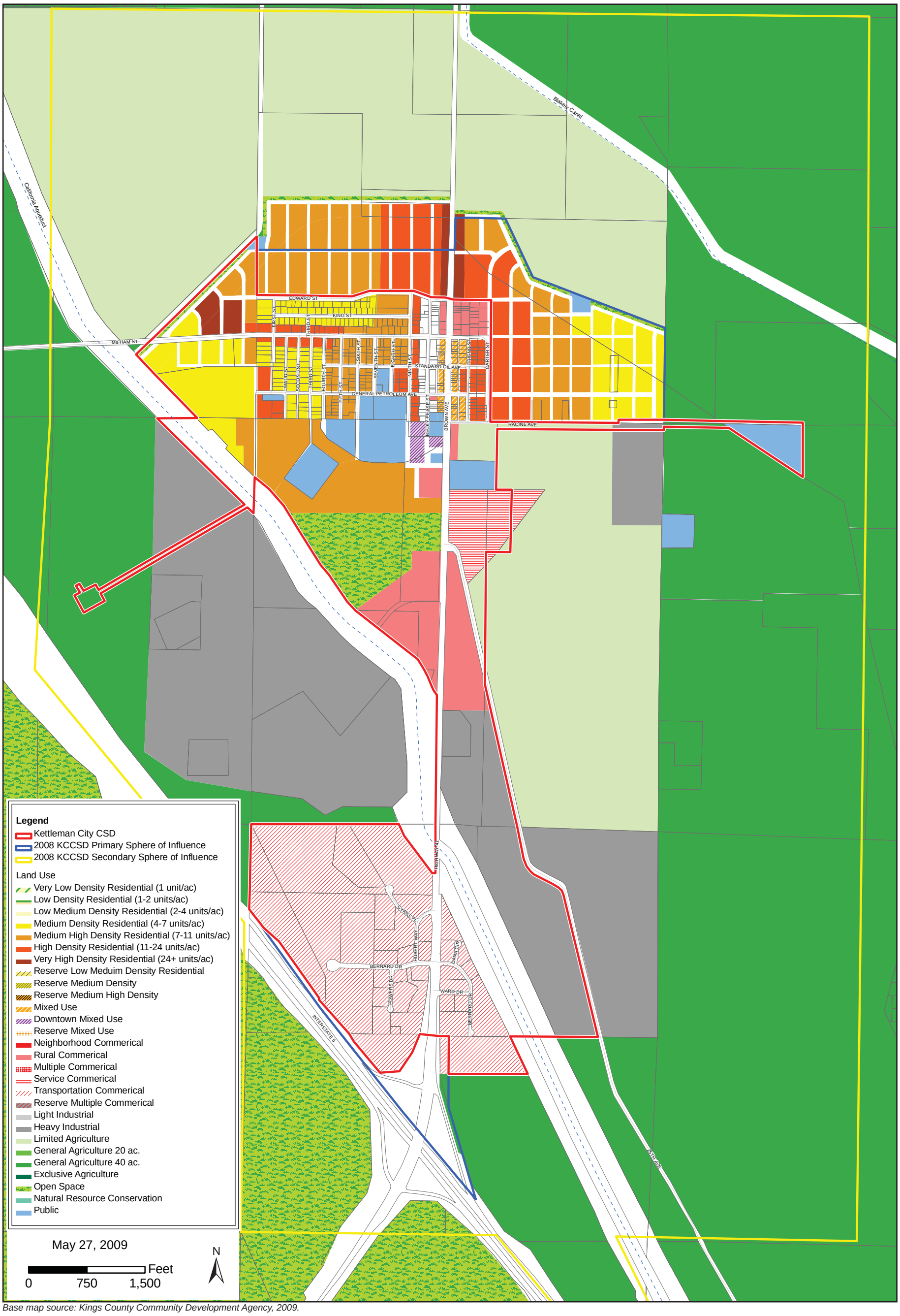
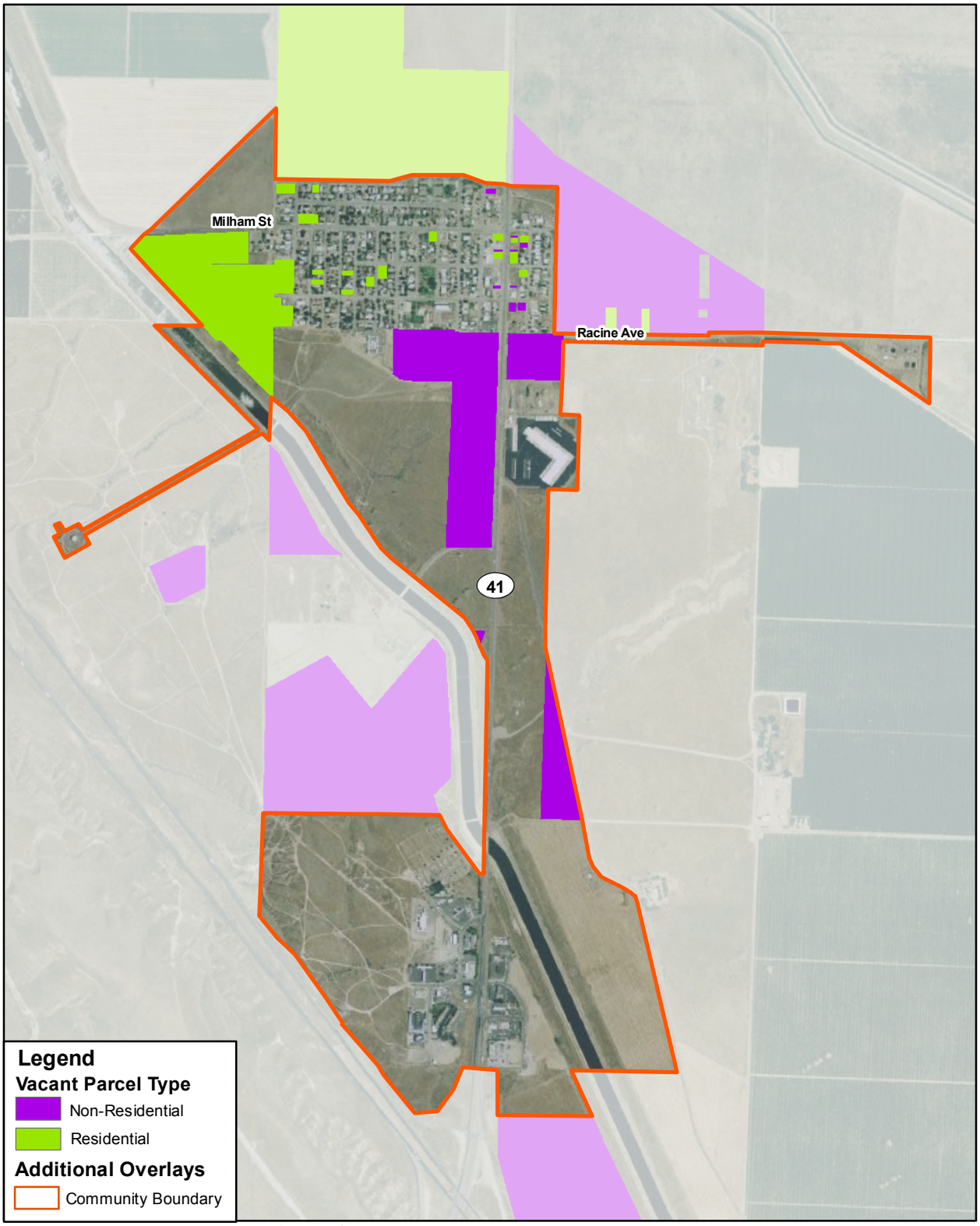


Base map source: Kings County Community Development Agency, 2009.

Proposed Kettleman City Land Use Designation Map

Figure 2-14



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Vacant Residential and Non-Residential Parcels within Kettleman City

Figure 2-15

Stratford Community Plan

The Stratford Community Plan guides the general distribution, location and intensity of land uses within the community and its future growth areas for residential, commercial, industrial, and public facilities. New compact residential growth with greater emphasis on community walkability to provide more desirable and affordable housing units, and a revitalized commercial core is intended to meet the daily needs of residents. Additional highway and mixed commercial is planned immediately east of State Route 41 to draw sales from travelers.

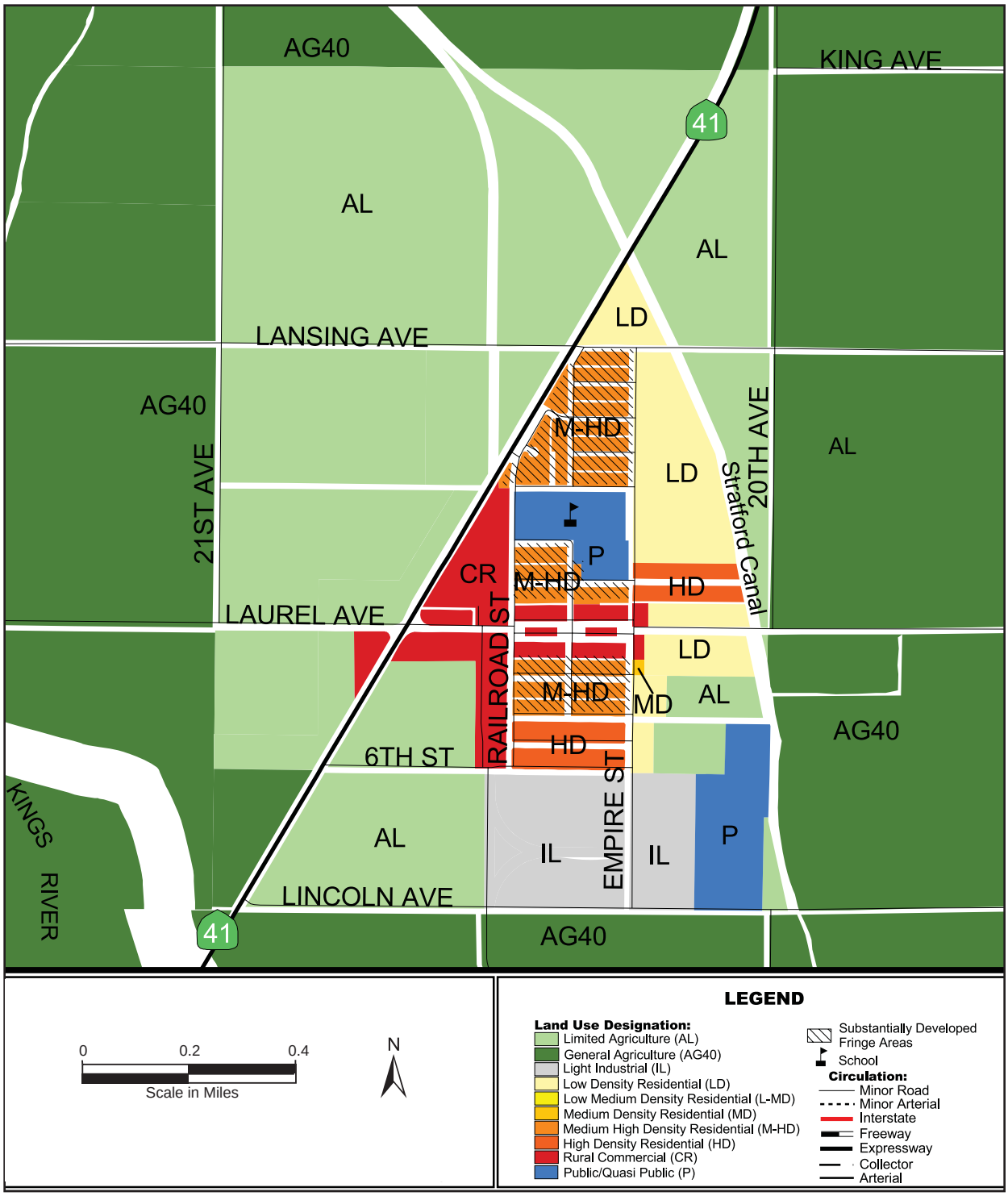
The Stratford Community Plan Land Use Map incorporates land use changes to ensure consistency between the General Plan and zoning. The map also displays the Primary and Secondary Sphere of Influence as defined by the Local Agency Formation Commission of Kings County (LAFCo). All planned urban areas, except for the Reserve Community Expansion Area and two Sphere Growth Areas, are located within the Primary Sphere of Influence as adopted by LAFCo and effective January 1, 2008. The Secondary Sphere of Influence serves as an area of interest to the community and the Stratford Public Utilities District (SPUD), and is also used to define the Planning Area. The Reserve Community Expansion Area serves as a reserve designation only to direct future urban growth consideration. Agricultural zoning will be maintained in this area until a specific plan is prepared and adopted under its own CEQA review. Reserve designations are not considered as currently available for growth consideration under this analysis.

The Stratford Community Plan is intended to be consistent with the overall goals, objectives and policies of the 2035 General Plan. Several of the 2035 General Plan goals, objectives and policies are included within the Community Plan and are intended to implement the broader goals of the General Plan. The Community Plan also includes updated land use designations intended to implement proposed General Plan goals and policies. The changes in land use designations from the 1993 General Plan to the Stratford Community Plan are summarized in Table 2-7. The existing and proposed Stratford Land Use Designation Maps are shown in Figure 2-16 and 2-17. Currently vacant parcels where growth could occur are shown in Figure 2-18.

Table 2-7. Comparison of Land Use Acreage of 1993 General Plan and Stratford Community Plan

Land Use Type	1993 General Plan Acres	Community Plan Acres
Residential	127.48	166.22
Commercial	50.53	59.64
Industrial	87.87	35.88
Mixed Use	0	18.52
Public/Quasi Public	21.34	50.34
Open Space/Natural Resource	0	102.46
Total	**287.27**	**433.06**
Reserve designations for Residential, Commercial and Mixed Use add an additional 368.95 Acres.		

As shown in Table 2-7, the total acreage of residential land uses increases substantially to provide more affordable and higher density housing. In addition, commercial land uses increased to accommodate the need for revitalized commercial activity within the Community Plan area.



Base map source: Kings County Community Development Agency, 2004.

Existing Stratford Land Use Designation Map

Figure 2-16

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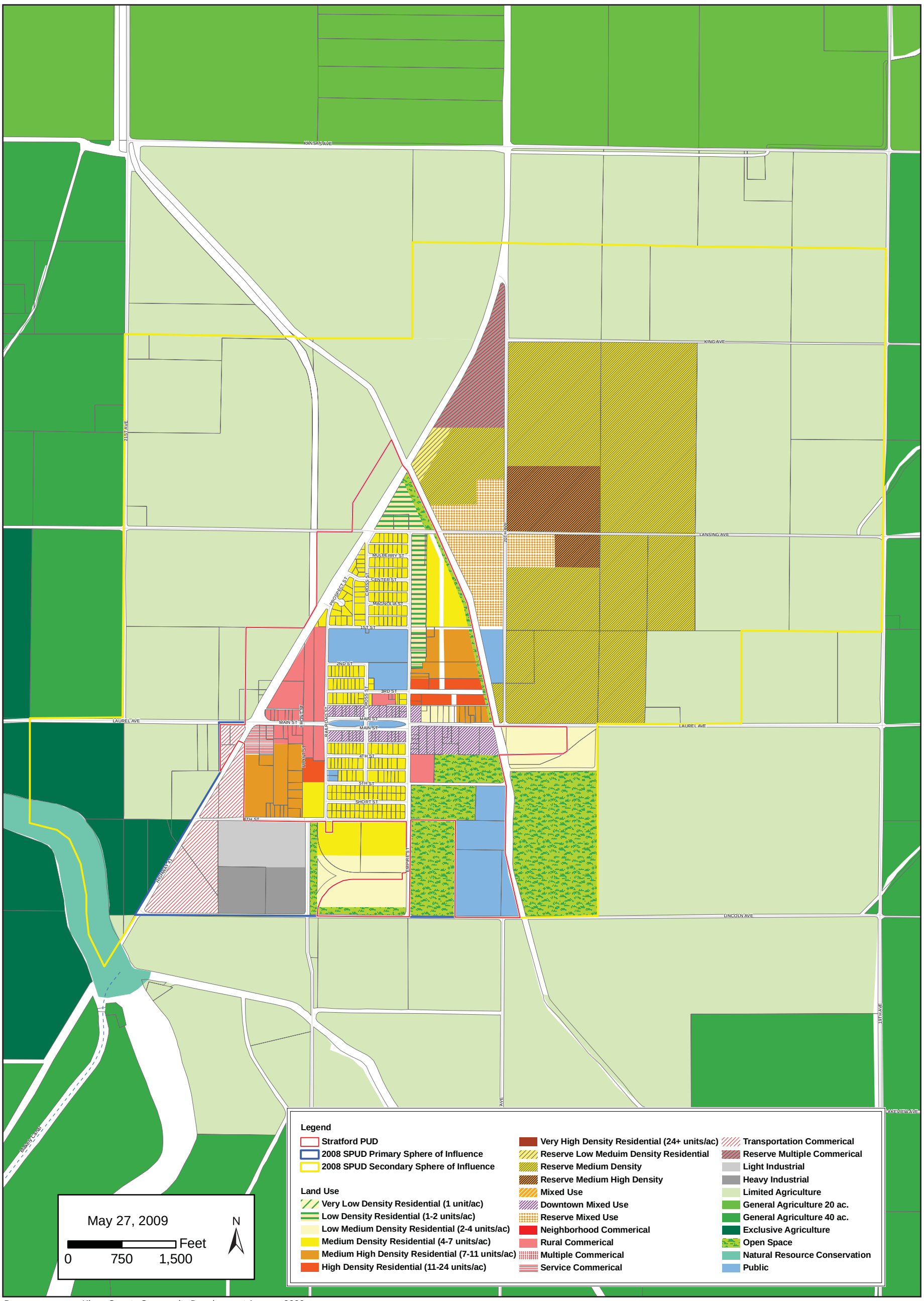
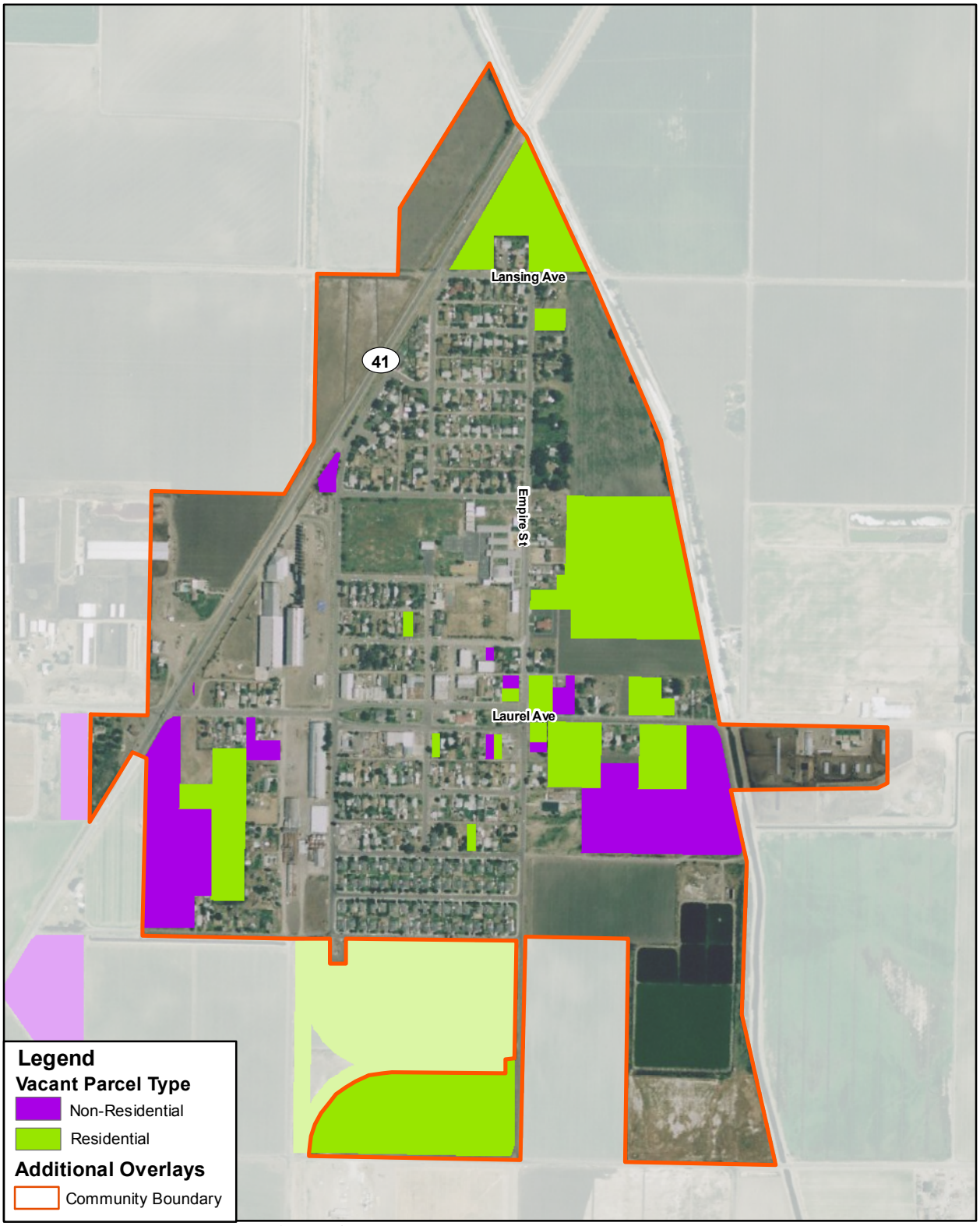


Base map source: Kings County Community Development Agency, 2009.

Proposed Stratford Land Use Designation Map

Figure 2-17



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Vacant Residential and Non-Residential Parcels within Stratford

Figure 2-18

2.6 2035 GENERAL PLAN BUILDOUT

Potential growth that could occur under the 2035 General Plan was based on assumptions regarding future development of proposed land use designations as well as currently vacant land. Note that much of the development potential of vacant lands could occur under the 1993 General Plan, since many of these lands are not re-designated under the General Plan Update.

All vacant land was inventoried and growth potential was calculated based on maximum residential density allowed by that particular land use designation. Commercial and industrial square footage was calculated based on the total number of commercially and industrially designated acres multiplied by the average lot coverage throughout the County. Please refer to Appendix B for a detailed inventory of vacant land and buildout potential. Table 2-8 summarizes existing and potential residential, commercial and industrial growth that could occur within each Community Plan area and planned urban areas within other unincorporated portions of the County.

Table 2-8. Existing Development and Potential Growth Under the 2035 General Plan

Area	Existing Development as of 2008	Potential Growth Under 2035 General Plan	Total Buildout Under 2035 General Plan
Armona			
Residential Units	961	1,623 ,	2,584
Commercial SF	680,581	301,213	981,794
Industrial SF	219,298	3,659	222,957
Home Garden			
Residential Units	427	294	721
Commercial SF	35,911	13,917	49,828
Industrial SF	41,896	0	41,896
Kettleman City			
Residential Units	320	975	1,295
Commercial SF	487,148	364,126	851,274
Industrial SF	923,907	826,546	1,750,453
Stratford			
Residential Units	292	444	736
Commercial SF	132,065	108,965	241,030
Industrial SF	267,933	109,435	377,368
Non-District County			
Residential Units	6,152	1,464	7,616
Commercial SF	197,248	991,155	1,188,403
Industrial SF	2,161,578	3,543,435	5,705,053
Countywide Totals			
Residential Units	**8,152**	**4,800**	**12,952**
Commercial SF	**1,532,953**	**1,779,376**	**3,312,329**
Industrial SF	**3,614,612**	**4,483,115**	**8,097,727**

Note: Potential commercial and residential growth includes the growth that could occur in Mixed Use designations.
SF= square feet.
Note: These values do not include development that occurs on Naval Air Station Lemoore
Note: Existing development was based on Department of Finance estimates and estimates provided by the Kings County Community Development Agency.
Note: Density of development was based on the proposed land use designation and existing densities found in each Community Plan area and unincorporated areas to better reflect the realistic development potential.

For informational purposes, Table 2-9 below shows the theoretical buildout of the 1993 General Plan. It is estimated that the 2035 General Plan would accommodate a 10.5 percent increase in residential development potential, an eight percent increase in commercial development potential, and a one percent increase in industrial development potential, as compared to the development that could be accommodated by the 1993 General Plan.

Table 2-9. 1993 General Plan Buildout

Area	1993 General Plan Buildout
Armona	
Residential Units	1,864
Commercial SF	1.001,583
Industrial SF	327,056
Home Garden	
Residential	816
Commercial SF	186,628
Industrial SF	52,446
Kettleman City	
Residential	713
Commercial SF	868,773
Industrial SF	1,646,567
Stratford	
Residential	712
Commercial SF	136,874
Industrial SF	443,841
Other Unincorporated County	
Residential	7,616
Commercial SF	838,730
Industrial SF	5,552,806
Countywide Totals	
Residential Units	11,721
Commercial SF	3,032,548
Industrial SF	8,022,716

Note: This is theoretical buildout that could have occurred under the 1993 General Plan. This level of development did not occur.
Note: These values include existing development as of 1993 and the development that could occur under the 1993 General Plan.
Note: These values do not include development that occurs on Naval Air Station Lemoore.

2.7 REQUIRED DISCRETIONARY ACTIONS

Following a recommendation from the Kings County Planning Commission, the Kings County Board of Supervisors would need to take the following discretionary actions in conjunction with the proposed 2035 General Plan:

- *Certification of the Final EIR on the 2035 General Plan*
- *Approval of the proposed 2035 General Plan*
- *Approval of spheres of influence by Local Agency Formation Commission of Kings County*

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3.0 ENVIRONMENTAL SETTING

This section describes the current environmental conditions in and around Kings County. More detailed setting information is included within the impact analysis for each issue area.

3.1 PHYSICAL SETTING

3.1.1 Geographic Setting

Kings County is located in the south-central portion of the San Joaquin Valley and is 1,391 square miles in size. The County is located in the southern section of the Great Valley Geomorphic Province of California. The Great Valley (also referred to as the Central Valley) is a large, asymmetrical, northwestwardly-trending, structural trough formed between the uplands of the California Coast Ranges to the west and the Sierra Nevada to the east. The Great Valley is over 400 miles long and approximately 50 to 60 miles wide in area. The Valley is subdivided into the Sacramento Valley (north of the Sacramento-San Joaquin Delta) and the San Joaquin Valley (south of the Delta). The southern part of the Valley (including most of Kings County) internally drains into the Tulare Lake Bed, with flows derived from the distributaries of the Kings, Tule, and Kaweah rivers. Cross Creek is the lower reaches of the Kaweah River within Kings County. North of the Kings River, runoff is directed into the San Joaquin River, which flows northward.

The southern San Joaquin Valley is bounded by the low mountains of the Coast Ranges to the west, the San Emiggdio and Tehachapi Ranges to the south, and the foothills of the Sierra Nevada to the east. The most prominent topographic feature in Kings County is the Tulare Lake Bed. The lake bed is a broad, shallow depression covering the central and southern portions of the County. The land surface within the basin is nearly flat but has been modified significantly by agricultural grading. The northern portion of the County is typified by alluvial fan surfaces formed along the Kings River and Cross Creek.

The Kettleman Hills region, located in the southwestern portion of the County, is characterized by northwest-southeast trending ridges (i.e., Kettleman Hills, Pyramid Hills, Keryenhagen Hills, and Avenal Ridge) and intervening valleys (i.e., Kettleman Plains and Sunflower Valley). The ridges rise to a maximum elevation of 3,473 feet NGVD (North American Vertical Datum) at Table Mountain at the western boundary of Kings County.

Kings County has historically been and continues to be a large agriculture producing area. Over 90 percent of the County is designated for agricultural uses. Unincorporated residential uses are primarily located within the community service providing special districts of Armona, Home Garden, Kettleman City and Stratford. Residential land uses within unincorporated areas and special districts comprised 0.4 percent of the total acreage of the County.

The County's major highway system encompasses Interstate 5, and several State Routes, including 33, 41, 43, 137, 198 and 269. Other prominent roadways include Avenal Cutoff Road, Excelsior Avenue, Flint Avenue, Grangeville Bypass, Grangeville Boulevard, Lacey Boulevard, Houston Avenue, Jackson Avenue, Kansas Avenue, Laurel Avenue, Whitley Avenue, Nevada Avenue, Pueblo Avenue, Utica Avenue, 6th Avenue, 10th Avenue, 10 ½ Avenue, 12th Avenue, 12 ¾ Avenue, 14th Avenue, 18th Avenue and 22nd Avenue. Additionally, the highway system

includes numerous county maintained local roads, as well as local streets and highways within each of the four cities and four unincorporated communities (Dairy Element Final Environmental Impact Report, County of Kings, 2002).

3.1.2 Drainage and Hydrology

The County is part of a hydrologic system referred to as the Tulare Lake Basin. The County can be divided into three main hydrologic subareas: the northern alluvial fan and basin area (in the vicinity of the Kings, Kaweah, and Tule rivers and their distributaries), the Tulare Lake Zone, and the southwestern uplands (including the areas west of the California Aqueduct and Highway 5). The alluvial fan/basin subarea is characterized by southwest to south flowing rivers, creeks, and irrigation canal systems that convey surface water from the Sierra Nevada to the west toward the Tulare Lake Bed. The dominant hydrologic features in the alluvial fan/basin subarea are the Kings River, Cross Creek, and Tule River Canal and their major distributaries.

The Kings River, which is the primary source of irrigation water for the area, is regulated by the Pine Flat Dam east of Fresno. The Kings River provides irrigation water to more than one million acres of agricultural land in Fresno, Tulare, and Kings counties. Tulare Lake Bed is a remnant of a much larger Pleistocene lake that once occupied most of the basin. Historically, much of the southern San Joaquin Valley drained to the historic Tulare Lake Basin, and the basin remains one of internal drainage (i.e., no streams or rivers flow out of the basin) (County of Kings, 2002).

3.1.3 Climate

The average summer high temperature in Kings County is in the upper 90° F (degrees Fahrenheit) range; during the summer, wind usually originates from the north end of the San Joaquin Valley and flows in a southeasterly direction. During winter months, the average temperature in the County is in the low 50° F; wind flows from the south end of the San Joaquin Valley toward the north. Low wind speeds and low inversion layers are common weather characteristics for the County. The local climate is considered desert because of its low rainfall, and the fact that annual evapotranspiration exceeds the rainfall total, which is typically six to eight inches per year. Rainfall occurs primarily in the winter months, with lesser amounts falling in late summer and fall.

3.2 DEMOGRAPHICS

Basic data regarding population, housing, and jobs in Kings County are provided below. More detailed discussion of these topics can be found in Section 4.11, *Population and Housing*.

The estimated 2008 total population of Kings County is 154,431. This represents about a 19.2 percent increase from the year 2000, when the population was 129,461 (Department of Finance, 2008). The population of unincorporated County is estimated to be 27,406, which excludes the federal territory populations of Naval Air Station Lemoore (NASL) and the Santa Rosa Rancheria. The total population of unincorporated Kings County, including NASL (7,385 residents) and the Santa Rosa Rancheria (520 residents) is 35, 311 (Department of Finance, 2008). As of 2008, the total number of dwelling units countywide was 42,161. Of this amount, 8,152

are within the unincorporated portions of the County, and include 6,506 single-family dwelling units, 327 units within multi-family buildings, and 1,319 mobile homes (Department of Finance, 2008). The average household size throughout the County is 3.29 persons, while vacancy rate is 5.68%. The average household size of unincorporated Kings County is 3.51, while the vacancy rate is 5.23% (Department of Finance, 2008).

Kings County's civilian labor force is approximately 62,100, with an annual average unemployment rate of 15.3 percent in April of 2009 (California Employment Development Department, 2009) Historically, agriculture and government have dominated Kings County's economy. In 2007 Kings County ranked 8th in California by value of agriculture production. The primary industries include government, agriculture, manufacturing, and trade, transportation, and utilities. Government is the largest industry in the county, accounting for 33.2 percent of the employment whereas agriculture accounts for 20.7 percent. Trade, transportation, and utilities represent 12.2 percent, manufacturing accounts for 9.6 percent, and educational and health services reflects 8.0 percent (Regional Housing Needs Allocation Plan, 2008).

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4.0 ENVIRONMENTAL IMPACT ANALYSIS

This section discusses the possible environmental effects of adopting and implementing the proposed *2035 Kings County General Plan* for the specific issue areas that were identified through the Initial Study process as having the potential to experience significant impacts.

"Significant effect" is defined by *CEQA Guidelines* §15382 as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment, but may be considered in determining whether the physical change is significant."

The assessment of each issue area begins with an italicized introduction that summarizes the environmental effects considered for that issue area. This is followed by the setting and impact analysis. Within the impact analysis, the first subsection identifies the methodologies used and the "significance thresholds", which are those criteria adopted by the County, other agencies, universally recognized, or developed specifically for this analysis to determine whether potential effects are significant. The next subsection describes each impact of the proposed project, mitigation measures for significant impacts, and the level of significance after mitigation. Each effect under consideration for an issue area is separately listed in bold text, with the discussion of the effect and its significance following. Each bolded impact listing also contains a statement of the significance determination for the environmental impact as follows:

> ***Class I – Unavoidably Significant:*** *An impact that cannot be reduced to below the significance threshold level with implementation of reasonably available and feasible mitigation measures. Such an impact requires a Statement of Overriding Considerations to be issued if the project is approved per §15093 of the State CEQA Guidelines.*
>
> ***Class II - Significant but Mitigable:*** *An impact that can be reduced to below the significance threshold level with implementation of reasonably available and feasible mitigation measures. Such an impact requires findings to be made under §15091 of the State CEQA Guidelines.*
>
> ***Class III - Not Significant:*** *An impact that may be adverse, but does not exceed the significance threshold levels and does not require mitigation measures. However, mitigation measures that could further lessen the environmental effect may be suggested if readily available and easily achievable.*
>
> ***Class IV - No Impact or Beneficial:*** *No impact would occur or the project would have a beneficial effect.*

Following each environmental effect discussion is a listing of recommended mitigation measures (if required) and the residual effects or level of significance remaining after the implementation of the measures. In those cases where the mitigation measure for an impact could have a significant environmental impact in another issue area, this impact is discussed as a residual effect. The impact analysis concludes with a discussion of cumulative effects, which evaluates the impacts associated with the proposed project in conjunction with other future development in the area.

Please refer to the Executive Summary for this EIR, which clearly summarizes all impacts and mitigation measures that apply to implementing the proposed General Plan Update.

Because the proposed project is a General Plan update, cumulative impacts are treated somewhat differently than would be the case for a project-specific development. Section 15130 of the *CEQA Guidelines* provides the following direction relative to cumulative impact analysis:

> *Impacts should be based on a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or areawide conditions contributing to the cumulative impact…*

By its nature, a general plan considers cumulative impacts insofar as it considers cumulative development that could occur within a County's plan area. Therefore, the analysis of project impacts also constitutes the cumulative analysis and this EIR does not contain a separate analysis of cumulative impacts. In addition to cumulative development within Kings County, the analysis of traffic and related impacts (such as noise) considers the effects of regional traffic growth.

4.1 AESTHETICS

This section analyzes the *2035 Kings County General Plan's* potential impacts with respect to aesthetics and community design. Specifically, changes in visual character, impacts to viewsheds, and impacts related to light and glare are discussed.

4.1.1 Setting

a. General Visual Character. The visual character within the unincorporated County of Kings is characterized by a mix of rural and built environments. The rural environment predominantly consists of natural or agricultural countryside. The built environment is focused in the communities of Armona, Home Garden, Kettleman City, and Stratford, which have been shaped by the settlement patterns of residents, businesses, and institutions. Specific attributes of the rural and built environments are discussed in greater detail below.

Rural Environment. The County of Kings is located in the south-central portion of the San Joaquin Valley. Typical views throughout the valley consist of long-range vistas of the surrounding mountains and foothills, open grazing lands, orchards, vineyards, and agricultural fields. The visual character of the region is rural in nature, characterized by such uses as grazing, open space, and cultivated agriculture, which is the dominant land use due to the valley's fertile alluvial soils and compatible climate. Interspersed among the agricultural fields are natural features such as rivers, hills, and other open spaces, as well as manmade features including urban and rural communities and parks.

Kings County's most prominent natural feature is the Kings River, which forms part of the County's northern border. Other local scenic resources include the Coast Ranges, with the unique formations of the Chalk Buttes-Reef Ridge portion of the Kreyenhagen Hills; the Pyramid Hills; Cottonwood Pass; Sunflower Valley; and Cross Creek.

Built Environment. Urban development within the unincorporated portions of the County is focused in four communities, which include Armona, Home Garden, Kettleman City, and Stratford. These communities maintain small rural town atmospheres. Armona, Home Garden, and Stratford serve as bedroom communities to the nearby cities of Hanford and Lemoore. The urban character within these communities is defined by residential uses, developed and undeveloped parkland, school and government facilities, various commercial services, and industrial uses. While residential uses range from very low (one unit per acre) to very high density (24+ units per acre), the majority of housing development falls within low to medium densities. Development in the unincorporated portions of the County consists of one- or two-story structures, with no particular unifying theme. Parkland primarily consists of small developed parks with such amenities as benches, playgrounds, and turfed areas. Public designated land typically accommodates school facilities or government buildings for civic uses. Commercial uses within the community plan areas include neighborhood commercial, rural commercial, service commercial, and transportation commercial, which provide the opportunity for the various types of retail stores, offices, service establishments, and wholesale businesses to concentrate for the convenience of the public. Examples of such uses include restaurants, retail shops, markets, and convenience stores, which are typically located and grouped on sties so they are in logical proximity to the respective geographical areas and respective categories of patrons which they serve. Industrial uses include both light industrial

and heavy industrial, which accommodate assembly and manufacturing operations of all kinds, including small items, food products, and agricultural-related products. Refer to the land use maps in section 2.0 *Project Description* for the precise location of existing residential, public, recreational, commercial, and industrial services within each community plan area.

b. Primary View Corridors. Principal travel corridors are important to an analysis of aesthetic features because they define the vantage point for the largest number of viewers. As of 2009, the California Department of Transportation (Caltrans) has not officially designated any routes within the County as scenic highways. However, the Caltrans Scenic Highways Map shows a portion of State Route 41, from State Route 33 to the Kern County line, as eligible for designation as a scenic highway. The *1993 Kings County General Plan* designates this roadway as a scenic corridor within the County and plans to coordinate with the Kings County Association of Governments to secure its designation as an official State Scenic Highway through the Caltrans Transportation Enhancement program.

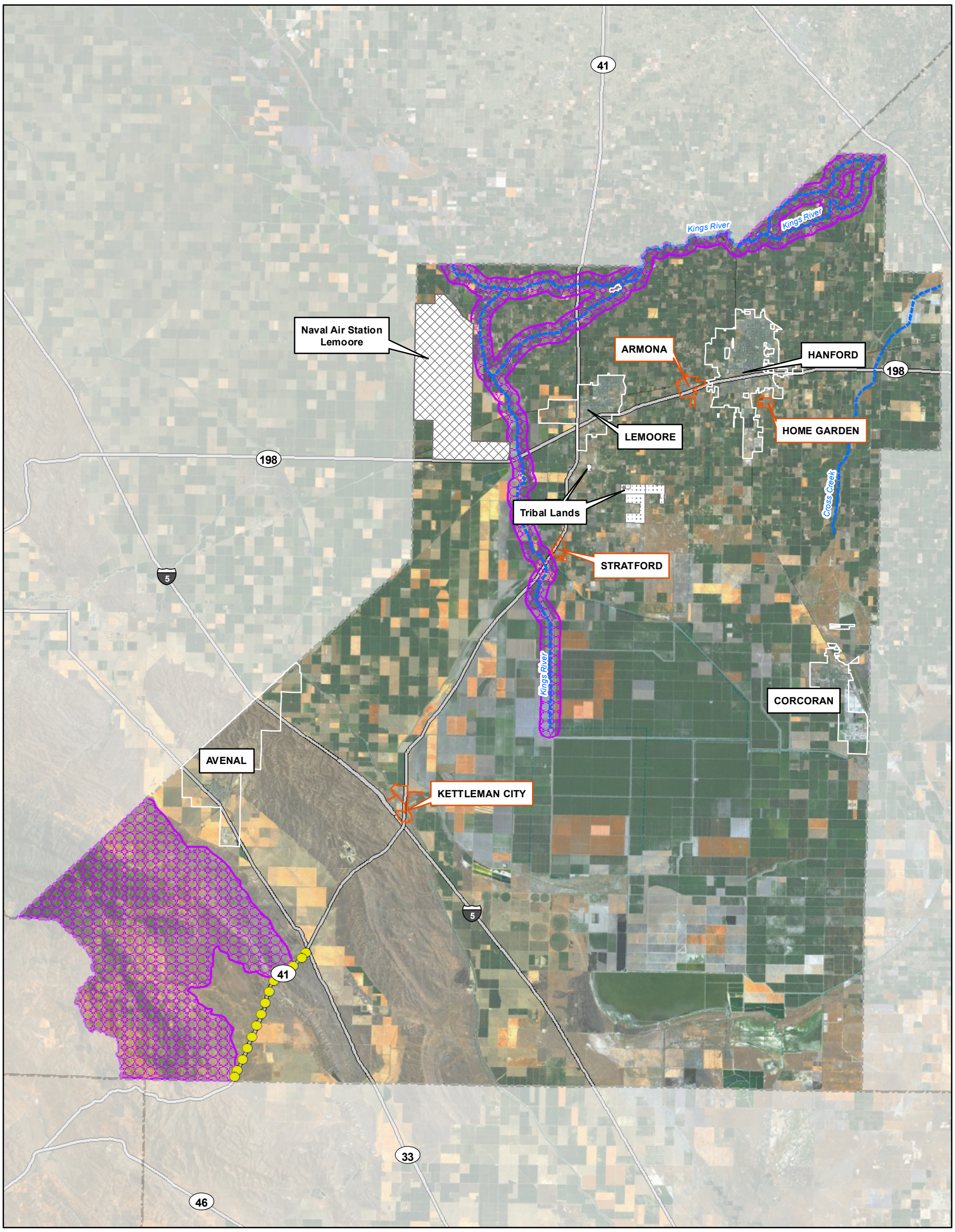
Scenic resources, as designated by the County, primarily include the Coast Ranges to the southwest, with formations of the Chalk Buttes-Reef Ridge portion of the Kreyenhagen Hills, the Pyramid Hills, Cottonwood Pass, and Sunflower Valley. Other scenic resources include the various ridgelines located west of the County in adjacent Fresno County, which are visible along State Route 41 from the northern county line to Kettleman City. Refer to Figure 4.1-1 for a map of scenic lands and highways as designated by the County.

c. Light and Glare. There are two primary sources of light intrusion: 1) light emanating from structural interiors and passing through windows; and 2) light from exterior sources, such as street lighting, building illumination, security lighting, traffic headlights, slope grooming, and landscape lighting. Uses such as residences, hospitals, and hotels are considered light sensitive since they are typically occupied by persons who have expectations for privacy during evening hours and who are subject to disturbance by bright light sources. Glare results mainly from sunlight reflection off flat building surfaces with glass and reflective metal surfaces typically contributing to the highest degree of reflectivity.

At night, light pollution is present in and around the County; however, light pollution is primarily confined to urban community plan areas, as over 90 percent of the County is designated for agricultural, natural resource conservation, and open space uses. Specific sources of nighttime illumination include streetlights and vehicular lights associated with roadways, State Routes and Interstate travel, as well as commercial and housing developments. Urban lighting associated with the incorporated cities in Kings County also affects the nearby unincorporated community plan areas. In addition, the prison facilities located in Corcoran and Avenal are the biggest light sources in the County. Glare within the area is created by exterior building materials, surface paving materials, and vehicles traveling or parked on roads and driveways. Any highly reflective facade materials are of particular concern, as buildings reflect sunlight.

d. Regulatory Setting. The County's General Plan and Zoning Ordinance provide the framework for evaluating potential aesthetic impacts and preserving its visual resources.

<u>1993 General Plan</u>. The existing 1993 General Plan provides the main regulatory framework for addressing aesthetic issues in the County. This document is being updated as part of the proposed project, and will be discussed in the context of the update within the



Base map source: Map images copyright © 2009 ESRI and its licensors. All rights reserved. Used by permission. U.S. Bureau of the Census TIGER 2000 data and Natural Resource Conservation Service, 2007.

Legend

- Potential Scenic Highway
- Scenic Lands

Additional Overlays

- Community Boundary
- City Boundary (Not part of General Plan)
- Naval Air Station Lemoore Boundary (Not part of General Plan)
- Tribal Lands (Not part of General Plan)

0 5 10 Miles

N

Scenic Lands and Potential Scenic Highways in Kings County

Figure 4.1-1

impact analysis. The Open Space Element includes policy statements to protect and enhance visual resources, including open space, agriculture, natural resources, and scenic vistas. Policies contained in the Open Space Element emphasize the aesthetic value of cultivated land, pasture and grazing land, and vineyards surrounding the urban communities. Policies are also intended to preserve the Kings River and Cross Creek to the north, the Coast Ranges to the southwest, and the Kreyenhagen Hills, the Pyramid Hills, Cottonwood Pass, and Sunflower Valley. State Route 41, south of State Route 33, is also viewed as a scenic highway by the County.

Zoning Ordinance. The Kings County Zoning Ordinance implements the General Plan by establishing setback, parking and sign standards, building height limits, and building densities. Article 21 of the Zoning Ordinance includes the guidelines for site plan review, which allows the zoning administrator to make a finding that a proposed development is in conformity with the intent and provisions of the ordinance and as a guide for the issuance of building permits. Plan review is also intended to protect the public welfare by ensuring that there will be no adverse effects of a project on surrounding property. It applies to any use listed within a particular zoning district as a permitted use subject to site plan review. It includes considerations relative to neighborhood compatibility, setbacks, building height, location of service, landscaping, fences and walls, views and obstructions, signs, and lighting. Specifically, plan review ensures that proposed lighting is so arranged as to reflect the light away from adjoining properties. Development review is also a part of the conditional use permit and planned unit development process.

4.1.2 Impact Analysis

a. Methodology and Significance Thresholds. The assessment of aesthetic impacts involves qualitative analysis that is inherently subjective in nature. Different viewers react to viewsheds and aesthetic conditions differently. This evaluation measures the existing visual environment against the proposed action, analyzing the nature of the anticipated change.

An impact is considered significant if physical changes that could be facilitated by development under the 2035 General Plan would result in one or more of the following conditions, which are based upon the environmental checklist in Appendix G of the CEQA Guidelines:

- *A substantial adverse effect on a scenic vista;*
- *Substantial damage to scenic resources, including, but not limited to, trees, rock; outcroppings, and historic buildings within a state scenic highway;*
- *Substantial degradation of the existing visual character or quality of the community; or*
- *New sources of light or glare that would adversely affect day or nighttime views***.**

b. Project and Cumulative Impacts

Impact AES-1 **Development under the 2035 General Plan would not adversely affect a state scenic highway within Kings County, as there are currently no designated scenic highways in the County. Therefore, impacts would be Class IV, *no impact or beneficial*.**

Kings County does not currently have any State designated scenic routes; however, the California Scenic Highways Map shows a portion of State Route 41 from State Route 33 to the Kern County Line as eligible for designation as a scenic highway, which the 2035 General Plan designates as a scenic corridor within the County. Should this portion of State Route 41 become designated as a scenic highway by Caltrans, development facilitated by the 2035 General Plan would not impact viewsheds in this area. The 2035 General Plan would designate land use within these areas as Natural Resource Conservation, which does not permit commercial or residential development. In addition, the 2035 General Plan Open Space Element sets forth policies that protect roadside visual resources in this area and designate this portion of State Route 41 as a scenic highway. Therefore, there would be no impact or beneficial impacts.

General Plan Policies which Reduce Impacts. The 2035 General Plan includes the following goals, objectives and policies, the implementation of which would address potential impacts to visual resources associated with highways:

LU Policy A1.1.6: *All new permanent non agricultural related structures proposed within the Coast Ranges and designated Natural Resource Conservation overlay shall be designed and located in a manner that limits the impact to the County's natural aesthetics, and visual appeal to travelers along State Routes 41 and 33.*

RC Policy A2.1.3: *Apply the "Natural Resource Conservation" land use designation to all areas of the County west of State Route 33 where topography consists of 15% or greater slopes. Permitted uses on steep sloped Natural Resource Conservation land include livestock grazing, livestock and timber, vines, and horticultural specialties.*

OS GOAL B1 *Maintain and protect the scenic beauty of Kings County*

OS OBJ B1.1 *Protect and enhance views from roadways which cross scenic areas or serve as scenic entranceways to cities and communities.*

OS Policy B1.1.1 *Coordinate with the Kings County Association of Governments to explore designation of State Route 41, from State Route 33 south to the Kern County line, as an official state scenic highway through the Caltrans Transportation Enhancement program.*

OS OBJ B1.2 *Preserve roadside landscapes which have high visual quality and contribute to the local environment.*

OS Policy B1.2.1 *Review new development and utility projects for compatibility and potential for impacting scenic view sheds along highly traveled scenic routes.*

OS OBJ B1.3 *Protect the scenic qualities of human-made and natural landscapes and prominent view sheds.*

OS Policy B1.3.1 *Require new development to be designed so that it does not significantly impact or block views of Kings County's natural landscape or other*

important scenic features. Discretionary permit applications will be evaluated against this requirement as part of the development review process. New developments may be required, as appropriate to:

- *Minimize obstruction of views from public lands and rights-of-way.*
- *Reduce visual prominence by keeping development and structures below ridge lines.*
- *Limit the impact of new roadways and grading on natural settings. Such limits shall be within design safety guidelines.*

OS Policy B1.3.2 *Protect the visual access to Kings River and other prominent watercourses by locating and designing new development to minimize visual impacts and obstruction of views of scenic watercourses from public lands and rights-of-way.*

OS GOAL C1 *Preserve the visual identities of Community Districts by maintaining open space separations between urban areas.*

OS OBJ C1.1 *Preserve open space, maintain rural character, and limit development in community separator areas.*

Mitigation Measures. No significant impacts are identified, so no mitigation measures are required.

Significance after Mitigation. Impacts would be less than significant without mitigation.

Impact AES-2 **The 2035 General Plan would emphasize reuse of existing urbanized lands, infill development on vacant parcels, and new development on urban fringe parcels, which would minimize changes in the existing visual character within the County. Additionally, 2035 General Plan policies would protect visual features and scenic resources. Therefore, impacts would be Class III, *less than significant*.**

Under the 2035 General Plan, the most substantial urban land use changes potentially affecting visual resources would take place within the already urbanized Community Plan areas. These are the only areas with expanded urban growth areas to accommodate future unincorporated urban growth. Development and redevelopment within these areas would include reuse of existing urbanized parcels, infill development on vacant parcels, revitalization of central business districts, and new development on the urban fringe. The 2035 General Plan would also increase densities in residential areas, integrate new land use designations to accommodate a mix of uses, designate natural lands with stronger preservation oriented land use, and enhance preservation of agricultural land to prevent untimely conversion to other uses. These changes are designed to encourage compact and community centered development patterns based on Smart Growth principles, which increase community sustainability, revitalize existing communities, and improve the quality of life.

The intensification of land use anticipated to occur in certain areas of the County may be considered an adverse effect to some viewers due to the presence of larger buildings and the corresponding reduction in vacant land within the County. However, residential uses will still range from very low (one unit per acre) to very high density (24+ units per acre), and the majority of housing development will fall within low to medium densities. In addition, the Community Plans propose architectural guidelines to maintain and enhance the existing community character. Furthermore, infill reduces the pressure for encroachment upon agricultural lands, thus minimizing the potential for the loss of open lands throughout the County, which are in part protected for their visual quality. Notably, by establishing large expanses of land as designated as Natural Resource Conservation (NRC) and Open Space (OS), the 2035 General Plan would preserve these visual resources in their current undeveloped state.

Because development facilitated by the 2035 General Plan and Community Plans would maintain and enhance the existing community character, and protect existing agricultural and open lands, impacts would be less than significant.

General Plan Policies which Reduce Impacts. The 2035 General Plan includes the following goals, objectives and policies, the implementation of which would reduce potential impacts to the visual quality of development:

OS GOAL B1 *Maintain and protect the scenic beauty of Kings County.*

OS OBJ B1.1 *Protect and enhance views from roadways which cross scenic areas or serve as scenic entranceways to cities and communities.*

OS OBJ B1.3 *Protect the scenic qualities of human-made and natural landscapes and prominent view sheds.*

OS Policy B1.3.1 *Require new development to be designed so that it does not significantly impact or block views of Kings County's natural landscape or other important scenic features. Discretionary permit applications will be evaluated against this requirement as part of the development review process. New developments may be required, as appropriate to:*

- *Minimize obstruction of views from public lands and rights-of-way.*
- *Reduce visual prominence by keeping development and structures below ridgelines.*
- *Limit the impact of new roadways and grading on natural settings. Such limits shall be within design safety guidelines.*

OS GOAL C1 *Preserve the visual identities of Community Districts by maintaining open space separations between urban areas.*

OS OBJ C1.1 *Preserve open space, maintain rural character, and limit development in community separator areas..*

OS Policy C1.1.1 *Preserve the agricultural open space buffer between the Community of Armona and City of Hanford to maintain community separation between Lacey Boulevard and Front Street along the west side of 13th Avenue.*

OS Policy C1.1.2 *Preserve the Open Space land use buffer around the Armona Community Services District waste water treatment facility to include territory between 13th and 14th Avenues, and north of Houston Avenue.*

OS Policy C1.1.3 *Preserve the agricultural open space buffer between the Community of Armona and City of Lemoore to maintain community separation between State Route 198 and Hanford Armona Road along the east side of 15th Avenue.*

The *2035 Armona Community Plan* includes the following goals, objectives and policies, the implementation of which would reduce potential impacts to the visual character of the community:

ACP GOAL 2A *New residential growth reinforces Armona's vision to remain a compact small town community while also building sustainable quality neighborhoods that meet the needs of the Community's diverse population.*

ACP Policy 2A.2.3 *Residential growth should avoid development of prime agricultural lands outside the Armona Community Services District Primary Sphere of Influence, and those protected under "Williamson" Act or Farmland Security Zone Contract.*

ACP OBJ 2B.1 *Establish the Downtown Area of Armona as designated for mixed commercial and residential uses to revitalize the Community core and enhance the visual distinction of Armona as having a small community Downtown.*

ACP Policy 2B.1.2 *New Mixed Use or Mixed Commercial development within the Downtown core shall adhere to the Armona Downtown Design Guideline that works to promote downtown architecture centered around Armona's historical railroad and packinghouse themes.*

ACP Policy 2B.1.4 *Require new development within the Downtown Mixed Use to be designed with small setbacks which promote the implementation of pedestrian oriented landscaping and amenities to shape outdoor spaces and streetscape. Building facades should also be constructed with awnings designed in a western or agricultural motif.*

ACP Policy 3A.1.1: *Agricultural designated areas within the Armona Secondary Sphere of Influence, as defined by LAFCo, shall remain designated as Limited Agriculture to ensure agricultural open space separation between the Community and adjacent Cities.*

ACP Policy 3A.1.3 *The County shall implement agricultural mitigation measures to minimize the loss of prime agricultural land that also serve as agricultural buffers separating communities and cities.*

ACP Policy 4A.1.4 *Preserve historical landmarks and require new development to integrate these Community valued features into the overall design of the development.*

ACP Policy 4A.2.1 *A Downtown Development Guideline shall be adopted which establishes design criteria for buildings and streetscapes, and incorporates design elements that are reminiscent of a historic railroad town and/or fruit packing warehouse theme.*

ACP Policy 4A.2.2 *New Mixed Use or Mixed Commercial development within the former railroad right of way adjacent to 14th Avenue shall promote the preservation of the historic Kings County Packing Co. Plant No. 1 warehouse and build upon that theme to re-create Armona's "Packing House Row" as a historic warehouse section of town.*

ACP Policy 8A.1.2 *Encourage infill development and compact growth for the North Expansion Area that is planned for residential and commercial development.*

The 2035 Home Garden Community Plan includes the following goals, objectives and policies, the implementation of which would reduce potential impacts to the community's visual character:

HGCP GOAL 2A *New residential growth reinforces Home Garden's desire to remain a compact small town community while also building sustainable quality neighborhoods that meet the growing needs of the community's diverse population.*

HGCP OBJ 2B.1 *Establish the centralized intersection of 10th Avenue and Home Avenue as a Downtown Mixed Use core for the Home Garden community to encourage private investment, revitalization and visual community distinction.*

HGCP Policy 4A.1.2 *Designate Downtown Mixed Use along the northwest and northeast corners of 10th Avenue and Home Avenue, and encourage property owners and developers to integrate community enhancing design concepts within this central core.*

HGCP Policy 4A.2.1 *New residential development shall integrate pedestrian connectivity that is representative of small town communities, and include sidewalks, curbs, planting strips, and trees to enhance the streetscape.*

HGCP OBJ 8A.1 *Preserve surrounding prime farmland not intended to accommodate planned urban growth, and allow agricultural practices to continue in the Northwest Growth Area of Home Garden until such time as development is ready to proceed.*

HGCP Policy 8A.1.1 *Direct new community growth to existing infill lots and the Northwest Growth Area as defined in the Community Plan to prevent premature conversion of agricultural land in other prime agricultural areas.*

The *2035 Kettleman City Community Plan* includes the following goals, objectives and policies, the implementation of which would reduce potential impacts to the community's visual character:

KCCP OBJ 2A.1 *Ensure orderly development of new residential areas in a manner that minimizes infrastructure investment, ensures adequate services, and avoids premature conversion of prime farmland.*

KCCP Policy 2A.1.2 *Residential growth should avoid development of prime agricultural lands, and those protected under a "Williamson" Act or Farmland Security Zone Contract.*

KCCP Policy 2B.2.2 *Establish a Downtown Design Guideline that works to promote urban design, traditional downtown architecture, facades, signs, landscaping and coordinated earth-tone color scheme.*

KCCP GOAL 3A *Community areas of open space are maintained and expanded upon to meet the needs of existing residents and future growth within a compact community.*

KCCP Policy 4A.2.1 *A Downtown Development Guideline shall be adopted which establishes design criteria that aims to create an aesthetically pleasing downtown which increases the marketability of the new Downtown Commercial Area and serves to attract and retain business interests.*

KCCP OBJ 8A.1 *Preserve prime farmland not needed to accommodate planned urban area growth, and allow agricultural practices to continue in phased growth areas until such time as development is ready to proceed.*

KCCP Policy 8A.1.1 *Encourage infill development and compact growth for all new areas planned for residential and commercial development.*

The *2035 Stratford Community Plan* includes the following goals, objectives and policies, the implementation of which would reduce potential impacts to the community's visual character:

SCP GOAL 2A *New residential growth reinforces Stratford's desire to remain a compact small town community while also building sustainable quality neighborhoods that meet the growing needs of the Community's diverse population.*

SCP Policy 2A.1.2 *New residential growth shall remain directed east of State Route 41 to keep growth centralized around the existing community and prevent development from crossing over the highway.*

SCP Policy 2A.3.1 *Multi-Family Residential designated land within the existing community shall remain concentrated along the northeast and southwest edges of Main*

Street to remain centrally located and within short walking distance to Stratford's downtown.

SCP Policy 2A.4.3: *New residential growth within the expansion area shall seamlessly connect new development with the existing community and integrate pedestrian connections and common design guidelines.*

SCP GOAL 3A *Areas of open space within Stratford enhance the quality of life of residents and are maintained to ensure long term sustainability and provision of recreational opportunities.*

SCP Policy 3B.1.2 *Open space land along riparian corridors and canals shall be preserved and pathways should be integrated to enhance the overall connectivity of the Community.*

SCP Policy 3B.1.3 *Open Space buffers shall be integrated along community edges to increase separation of residences from industrial uses and wastewater treatment processing, and increase community integration with pedestrian trail amenities.*

SCP Policy 4A.1.1 *Develop Downtown Mixed Use design guidelines for the Stratford Community to guide future growth within the central commercial core of the community.*

SCP OBJ 4A.2 *Establish the Downtown Mixed Use and commercial centers to be reminiscent of Stratford's historic past and emphasize this area as the primary focus for aesthetic community design improvements.*

SCP Policy 4A.2.1 *A Downtown Development Guideline shall be adopted which establishes design criteria for buildings and streetscapes, and incorporates designs that embrace the elements of "small town" character and quality of life.*

SCP Policy 4A.3.1 *Adjacent land within the Reserve Mixed Use area shall incorporate aesthetic design features centered around the canal.*

SCP OBJ 4A.4 *Establish quality neighborhoods that recreate small town traditional neighborhood design to create a communitywide integrated "Sense of Place."*

SCP Policy 4A.4.1: *New residential development shall integrate architectural design standards reminiscent of small town communities.*

SCP GOAL 8A *Protect prime agricultural land from untimely conversion and discourage disorderly urban growth.*

SCP Policy 8A.1.1 *Direct new community growth to the Sphere Growth Areas and Community Expansion Area as defined in the Community Plan to prevent the loss of agricultural land in other prime agricultural areas.*

SCP Policy 8A.1.2: *New residential development within the community shall avoid or preserve surrounding local waterways, sensitive habitat, and open space areas.*

SCP Policy 8A.1.3 *Encourage infill development and compact growth within the existing Stratford Public Utilities District boundary.*

Mitigation Measures. No significant impacts are identified, so no mitigation measures are required.

Significance after Mitigation. Impacts would be less than significant without mitigation, since the proposed General Plan includes a policy framework that would address potential visual impacts at a programmatic level.

Impact AES-3 **Development that could be facilitated by the 2035 General Plan would introduce new sources of light and glare, which would increase overall ambient night-time light and daytime glare from building materials. Potential impacts to existing development would be Class II, *significant but mitigable*.**

Development that could be facilitated by the 2035 General Plan would increase the ambient nighttime lighting within unincorporated areas of the County. Areas that would experience the greatest potential for increased lighting are those areas likely to experience the greatest development potential, which would be primarily within the four community plan areas and their "urban fringes". Increased light and glare within the community plan areas would be the result of new housing, increased density of housing, and the newly established mixed used designation, which could accommodate residential densities up to 20 units per acre. In total, the 2035 General Plan could result in up to 4,800 additional residential units. In addition, up to 1,779,376 square feet of commercial space could be developed under the 2035 General Plan. This level of residential and commercial development would increase nighttime light due to business operations, residential lighting, and increased vehicular traffic.

The draft 2035 General Plan restricts development in currently undeveloped areas, and focuses it in already urbanized, compatible portions of the unincorporated community planning areas, which reduces the amount of new light and glare. Establishing new land uses in a manner that remains compatible with other uses within the county further minimizes this impact, but not to the extent feasible.

General Plan and Community Plan Policies which Reduce Impacts. The draft 2035 General Plan and Community Plans do not include any goals, objectives, or policies that specifically address minimizing lighting impacts.

Mitigation Measures. The following measure could be incorporated as a General Plan policy to reduce light and glare impacts to less than significant levels:

AES-1 **Policy LU D1.3.4**: **Minimize Light and Glare.** Preserve the existing nighttime environment by limiting the illumination of areas surrounding new development. New lighting that is part of residential, commercial, industrial, or recreational development shall be oriented

away from sensitive uses, and should be hooded, shielded, and located to direct light pools downward and prevent glare.

Significance after Mitigation. Implementation of the proposed policy would reduce potential impacts to a less than significant level.

4.2 AGRICULTURAL RESOURCES

4.2.1 Setting

Agriculture is an important economic resource for Kings County. There are over 1,100 farms in Kings County, and the average farm size is 681 acres. In Kings County, 92 percent of eligible farmland, excluding the Naval Air Station Lemoore and the Santa Rosa Rancheria, is protected under the Williamson Act or Farmland Security Zone Contract. In 2008, the total harvested crop acreage for Kings County was 675,082 acres (76 percent of the County's total acreage). Approximately 76,322 acres of farmland was fallowed following the 2007 growing year due primarily to reduced water supplies from state and federal water delivery systems. Kings County's ten leading commodities are milk, cotton, cattle & calves, alfalfa, pistachios, tomatoes, corn silage, almonds, walnuts and peaches (Kings County Department of Agriculture, 2008).

Soils. Agricultural classifications of each soil type found within the Kings County General Plan area were analyzed based on their Capability Class and California Revised Storie Index grade. Capability Classes provide insight into the suitability of a soil for field crop uses based on factors that include texture, erosion, wetness, permeability, and fertility. Land capability classification generally shows the suitability of soils for most kinds of field crops. Land capability classes are designated by the numbers 1 through 8. The numbers indicate progressively greater limitations and narrower choices for practical use. Class 1 and 2 soils may only have slight to moderate limitations that restrict their use, while Class 7 and 8 soils have severe limitations that make them unsuitable for cultivation.

The Storie Index is a soil rating based on soil properties that govern a soil's potential for cultivated agriculture in California. The Storie Index assesses the productivity of a soil based on the degree of soil profile development, texture of the surface layer, slope, and manageable features. Storie Index ratings were previously a score between the numbers 0 to 100. However, for simplification the Revised Storie Index ratings have been combined into six grades as follows:

Grade 1 *Excellent: Soils that rate between 80 and 100 and which are suitable for a wide range of crops.*

Grade 2 *Good: Soils that rate between 60 and 79 and which are suitable for a wide range of crops.*

Grade 3 *Fair: Soils that range between 40 and 59. Soils in this grade may give good results with certain specialized crops.*

Grade 4 *Poor: Soils that rate between 20 and 39 and which have a narrow range in their agricultural potential.*

Grade 5 *Very Poor: Soil that rate between 10 and 19 and are of very limited agricultural use except for pasture because of adverse soil conditions.*

Grade 6 *Nonagricultural: Soils that rate less than 10.*

As defined in Government Code Section 51201 (California Land Conservation Act of 1965), Capability Class 1 and Class 2 soils and soils with a Storie Index from 80 to 100 (Grade 1/Excellent under the Revised rating) qualify as prime soils. Kings County area soils and their ratings under both of these classification systems are shown in Table 4.2-1. The locations of prime soils within the County are depicted in Figure 4.2-1.

Table 4.2-1. Kings County Prime Soils and Agricultural Capability

Soil Type	Land Capability Class[1]	CA Revised Storie Index	Farmland Classification
Akers-Akers, saline-Sodic, complex, 0-2% slopes	1	1	Prime[2]
Avenal loam, 0-5% slopes	2	1	Prime[3]
Biggriz-Biggriz, saline-Sodic, complex, 0-2% slopes	2	2	Prime[2]
Colpien loam, 0-2% slopes	1	1	Prime[2]
Corona silt loam	2	1	Prime[3]
Grangeville fine sandy loam, partially drained	2	4	Prime[3]
Hanford sandy loam, 0-2% slopes	1	1	Prime[2]
Kimberlina fine sandy loam, sandy substratum	2	1	Prime[3]
Milham sandy loam, silty substratum	2	1	Prime[3]
Nord fine sandy loam	1	1	Prime[3]
Nord complex	2	1	Prime[3]
Panoche clay loam, 2-5% slopes	2	1	Prime[3]
Panoche loam	1	1	Prime[3]
Twisselman silty clay	2	3	Prime[3]
Wasco sandy loam, 0-5% slopes	2	1	Prime[3]
Wasco sandy loam, 2-5% slopes	2	1	Prime[3]
Westhaven loam, 0-2% slopes	1	1	Prime[3]
Westhaven loam, 2-5% slopes	2	1	Prime[3]

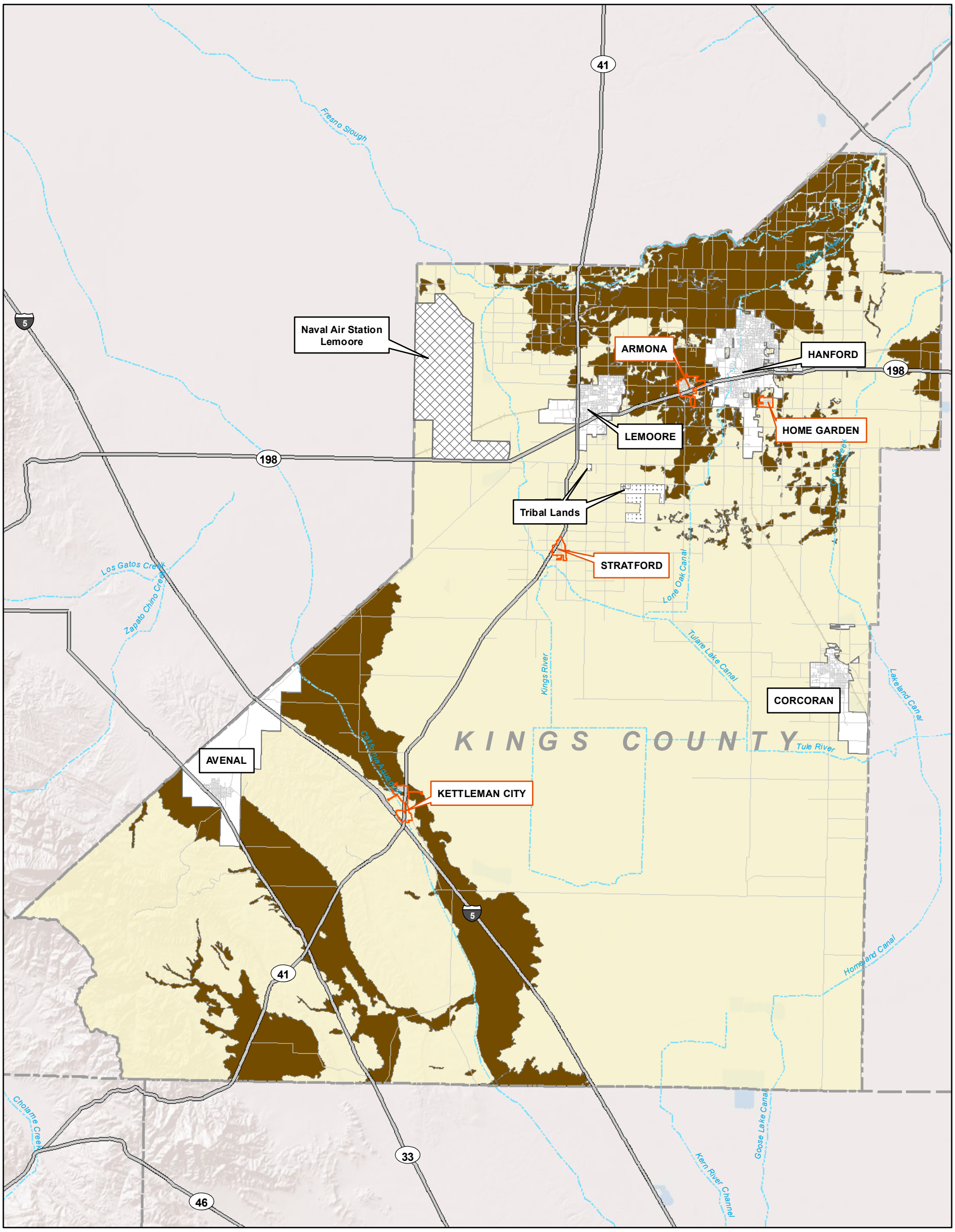
1 Irrigated Land Capability Class used as a reasonable worst case, unless irrigated classification is not available, In which case the class is followed by an asterisk (*).
2 Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
3 Prime farmland if irrigated
Source: Natural Resource Conservation Service, Web Soil Survey 2.1, 2009.

Farmland Mapping and Monitoring Program. The California Department of Conservation (DOC) identifies and designates important farmlands throughout the state as part of the Farmland Mapping and Monitoring Program (FMMP). DOC important farmlands differ from soils classifications discussed above because the DOC important farmland designation is based on soil quality and current land use, rather than soil quality alone. According to the FMMP, Kings County contains approximately 140,000 acres of Prime Farmland, 420,000 acres of Farmland of Statewide Importance, 26,000 acres of Unique Farmland, and 9,000 acres of Farmland of Local Importance. A summary of the most recent Countywide FMMP designations is contained in Table 4.2-2, and is illustrated on Figure 4.2-2.

Table 4.2-2. Countywide Farmland Mapping and Monitoring Program Land Use Designations

FMMP Designation	2006	
	Acres*	Percent of County Land
Prime Farmland	139,212	16 %
Farmland of Statewide Importance	420,422	47 %
Unique Farmland	25,982	3 %
Farmland of Local Importance	8,868	1 %
Grazing Land	243,183	27 %
Urban or Built-Up Land	31,448	3 %
Other Land	21,603	2 %
Water Area	66	0 %
Total Acres	**890,784 acres**	

** Acreage totals also include incorporated areas of the County*
Source: California Department of Conservation, 2006



Base map source: Map images copyright © 2009 ESRI and its licensors. All rights reserved. Used by permission. U.S. Bureau of the Census TIGER 2000 data and Natural Resource Conservation Service, 2007.

Legend

- Prime Soils (If Irrigated)
- Not-Prime

Additional Overlays

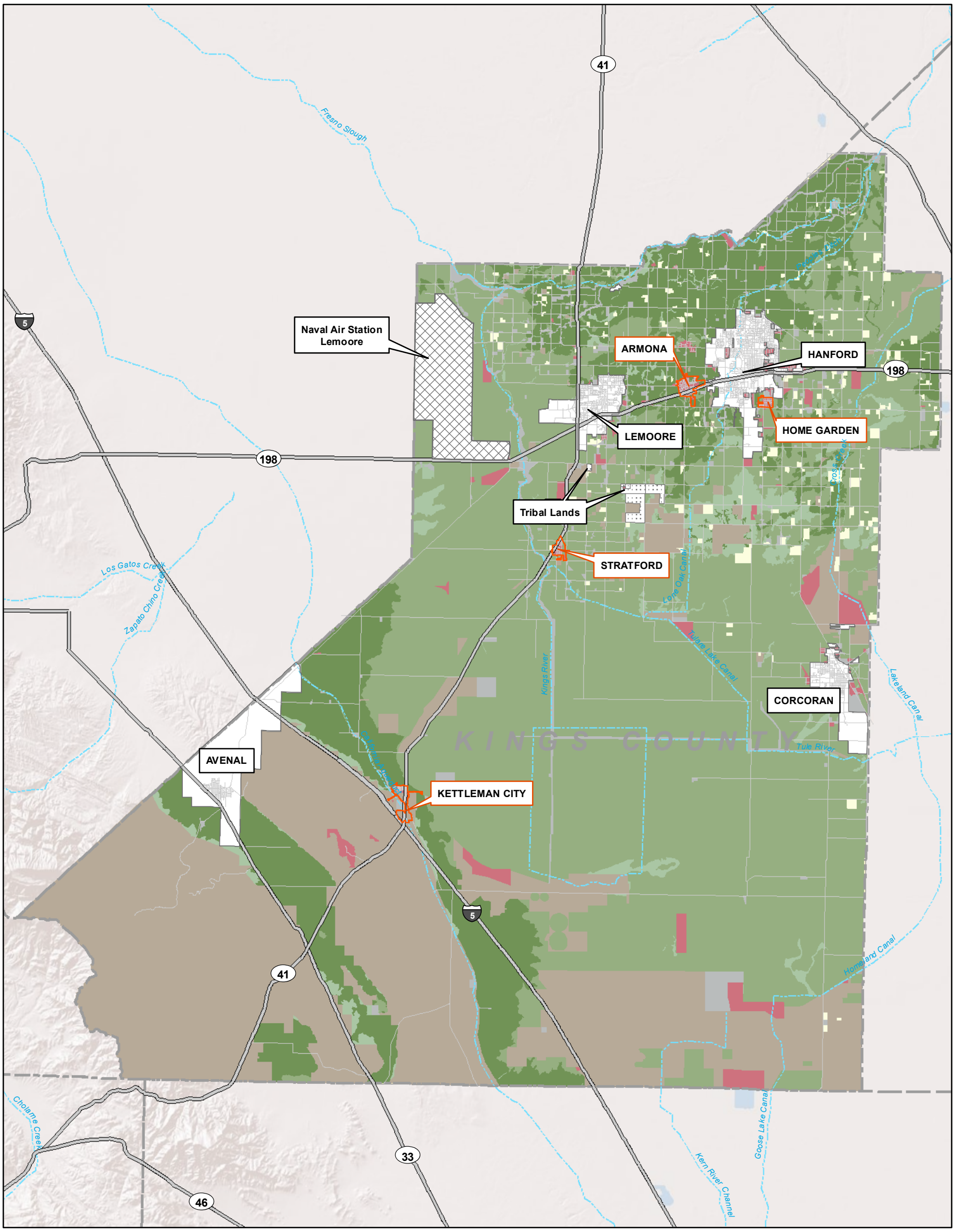
- Community Boundary
- City Boundary (Not part of General Plan)
- Naval Air Station Lemoore Boundary (Not part of General Plan)
- Tribal Lands (Not part of General Plan)

0 5 10 Miles

N

Kings County Prime Soils (Farmland)

Figure 4.2-1



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Legend

Farmland Mapping and Monitoring Program

- Prime Farmland
- Farmland of Statewide Importance
- Unique Farmland
- Farmland of Local Importance
- Grazing Land
- Urban and Built-Up Land
- Other Land
- Water
- Farmland of Local Potential
- Irrigated Farmland
- Nonirrigated Farmland

- Community Boundary
- City Boundary (Not part of General Plan)
- Naval Air Station Lemoore Boundary (Not part of General Plan)
- Tribal Lands (Not part of General Plan)

0 5 10 Miles

N

Kings County Status Farmland Map

Figure 4.2-2

Agricultural Preserve Program. The California Land Conservation Act of 1965, (commonly referred to as the "Williamson" Act) enables local governments to enter into contracts with private landowners to protect agricultural, wetland, and scenic areas of the state from unnecessary or premature conversion to urban uses. The Williamson Act is a mechanism that provides tax incentives to preserve land in agricultural production or open space. Under this voluntary program, the landowner agrees to keep the land in agricultural production or open space for a 10-year contract period (renewed annually with the County). In return, the property tax is assessed on the agricultural or open space value rather than the unrestricted market value.

Longer-term contracts (20 years) can be negotiated under the Farmland Security Zones, an option passed by the California Legislature in 1998. A Farmland Security Zone is an area created within an agricultural preserve by a board of supervisors upon request by a landowner or group of landowners. It is a contract between a private landowner and a county that restricts land to agricultural or open space uses. The minimum initial term is 20 years. Like a Williamson Act contract, Farmland Security Zone contracts self-renew annually, thus unless either party files a "notice of nonrenewal" the contract is automatically renewed each year for an additional year. To be eligible for a Farmland Security Zone Contract, the land must be designated as Prime, Unique, or Farmland of Local or Statewide Importance under the FMMP (California Department of Conservation, 2009).

The vast majority of agricultural land in the County is under a Williamson Act or Farmland Security Zone conservation contract. Currently, these agricultural preserves total 670,000 acres (approximately 80 percent) of the General Plan area. The location of these properties is illustrated on Figure 4.2-3.

Right to Farm Ordinance. The County adopted a "Right to Farm Ordinance" in 1996, to protect the rights of commercial farming operations, while promoting a "good neighbor policy" between these uses. Under this ordinance, property owners and residents are made aware that they may experience inconveniences due to commercial agricultural operations. This ordinance states that it is the policy of Kings County to:

1) *protect agricultural land, operations, and facilities from conflicting uses due to the encroachment of incompatible, nonagricultural uses of the land in agricultural areas of the county, and*
2) *to advise developers, owners, and subsequent purchasers of property in the County of the inherent potential inconveniences and discomforts often associated with agricultural activities and operations, including, but not limited to, equipment and animal noise; farming activities conducted on a 24-hour a day, 7-day a week basis; odors from manure, fertilizers, pesticides, chemicals, or other sources; the aerial and ground application of chemicals and seeds; dust; flies and other insects; and smoke from agriculture operations.*

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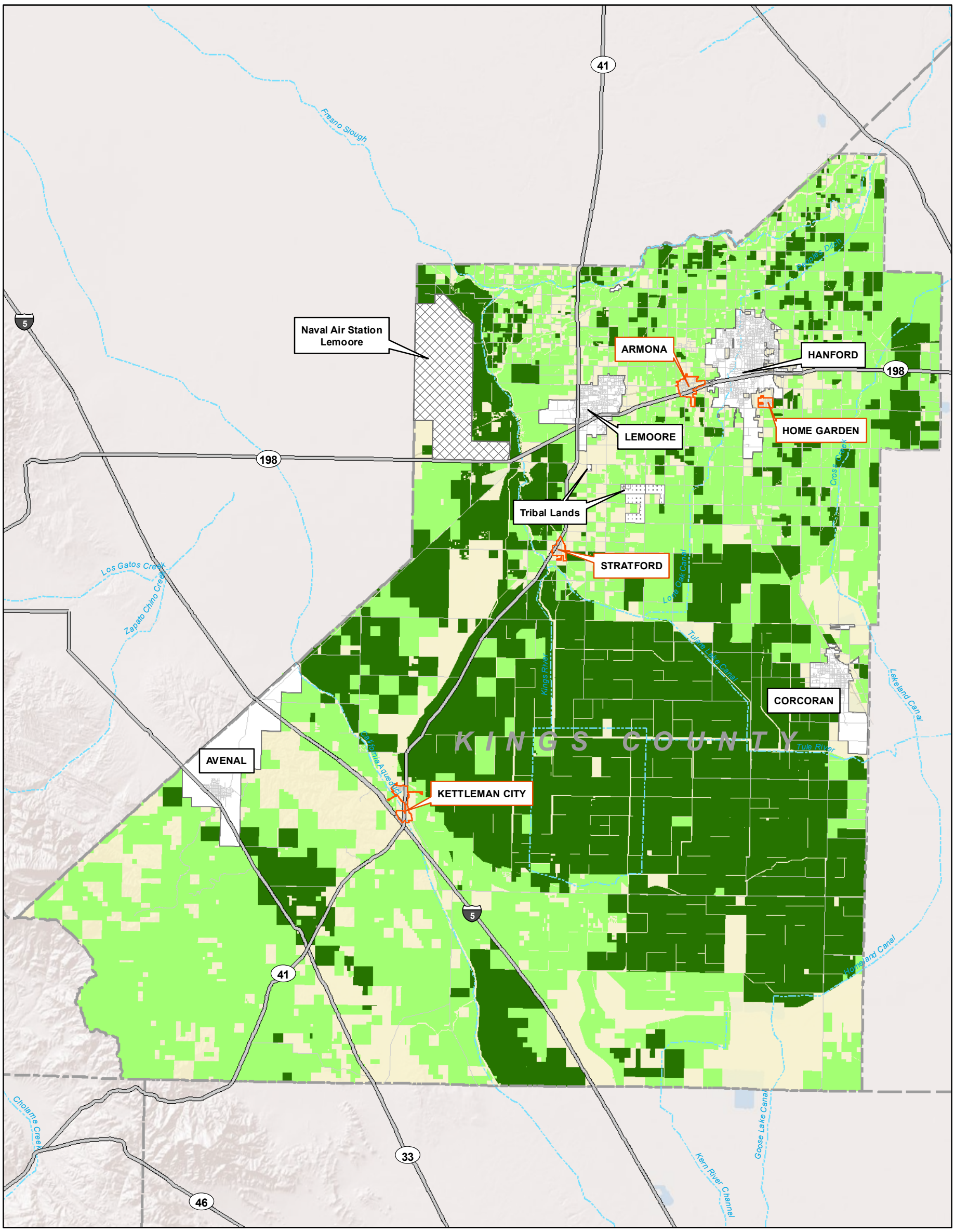

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Legend

Contracted Property

- Williamson Act Property
- Farmland Security Zone Property
- Non-Contracted Property

Additional Overlays

- Community Boundary
- City Boundary (Not part of General Plan)
- Naval Air Station Lemoore Boundary (Not part of General Plan)
- Tribal Lands (Not part of General Plan)

0 5 10 Miles

N

Kings County Agricultural Preserves

Figure 4.2-3

4.2.2 Impact Analysis

a. Methodology and Significance Thresholds. An impact is considered significant if physical changes that could be facilitated by buildout of the 2035 General Plan would result in one or more of the following conditions, which are based upon the environmental checklist in Appendix G of the CEQA Guidelines:

- *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use;*
- *Conflict with existing zoning for agricultural use, or a Williamson Act contract; or*
- *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use.*

The evaluation of impacts to agricultural resources is based on a map overlay analysis to determine where land use designations that would accommodate development intersect agricultural lands. Using Geographic Information Software (GIS), agricultural land that may be converted under the proposed General Plan was identified, as summarized in the impact discussions below. For this EIR, the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Important or farmland under an agricultural preserve to non-agricultural use, or impairing the productivity of farmland is considered a significant impact. Land use conflicts between urban and agricultural uses are also addressed. Impacts related to pesticide exposure are discussed in Section 4.7, *Hazards and Hazardous Materials.*

b. Project and Cumulative Impacts

Impact AG-1 Future development in accordance with the 2035 General Plan could occur in areas that contain prime agriculture soils and/or Important Farmland. However, implementation of existing and proposed 2035 General Plan policies would reduce potential impacts to Class III, *less than significant*.

Based on an inventory of vacant land in the County, buildout of the 2035 General Plan could result in the development of 4,800 new residential units and over 6 million square feet of new commercial and industrial uses countywide. As illustrated on Figure 2-4 in Section 2.0 *Project Description,* the approximately 2,910 acres of vacant land zoned for residential, commercial, or industrial uses is located primarily within or adjacent to the urbanized cities and communities. Of this developable land, approximately 1,538 acres are designated as Status Farmland by DOC, FMMP. Table 4.2-3 summarizes the farmland that could be impacted by long-term buildout under the General Plan Update.

Table 4.2-3. Summary of Impacts to Status Farmland

FMMP Designation	Countywide Total (acres)	Developable Land Under 2035 General Plan (acres)
Prime Farmland	139,212	749
Farmland of Statewide Importance	420,422	741
Unique Farmland	25,982	23
Farmland of Local Importance	8,868	25
Total	**594,484**	**1,538**

Sources: California Department of Conservation, 2006; Kings County GIS Data, 2009

While the loss of up to 1,538 acres of Status Farmland could be considered an adverse impact, it should be noted that this represents only a small fraction (0.26 percent) of the total Important Farmland in the County. As described above, future development under the 2035 General Plan is limited to the existing community plan areas and the urban fringe areas bordering incorporated cities. Thus, the limited growth that would occur on Status Farmland over the next 25 years could be considered logical expansion areas, as opposed to scattered development on agricultural parcels throughout the County. Growth adjacent to urbanized areas is much less disruptive to agricultural uses countywide because it discourages the development of new rural neighborhoods or communities that would require the extension of infrastructure that would create growth-inducing impacts and potentially greater impacts to agricultural resources.

As described in the *2035 General Plan Land Use Element*, revised Sphere of Influence boundaries were adopted for each of the cities and unincorporated communities in the County which became effective January 1, 2008. These new Sphere of Influence boundaries resulted in the effective removal of 11,000 acres from growth consideration. By limiting the possible future expansion of these existing urbanized areas, surrounding agricultural uses would be protected from conversion. The 2035 General Plan contains numerous goals and policies to prevent future loss of these valuable agricultural resources, and to mitigate for incremental losses that may occur on a project-specific basis as these vacant lands are considered for development. Implementation of these policies would ensure that impacts to Status Farmland remain less than significant.

General Plan Policies which Reduce Impacts. The *2035 General Plan Land Use Element* contains the following policies, the implementation of which would reduce impacts related to agricultural lands conversion, and protect the viability of existing agricultural resources:

LU Goal B1: *Protect agricultural lands throughout the County, and in particular along the edges of Community Districts and Urban Fringe by maintaining large parcel sizes and preventing the premature development of incompatible urban uses.*

LU Objective B1.1: *Preserve the integrity of the County's agricultural land resources through agricultural land use designations and other long term preservation policies.*

LU Policy B1.1.1: *Designate all agricultural and grazing land outside of planned urban areas as Limited Agriculture, General Agriculture, Exclusive Agriculture, or Natural Resource Conservation.*

LU Objective B1.2: *Maintain large parcel sizes of agricultural designated land within Urban Fringe areas and around Community Districts to retain viable agricultural production until such time as land is planned and ready for conversion to other uses.*

LU Policy B4.1.2: *Require agricultural employee housing to be located on site in a manner that minimizes the effect on or loss of productive agricultural land and its productivity, but not to the detriment of the farm employee housing occupants.*

The *2035 General Plan Open Space Element* contains the following policies to limit impacts to agricultural resources:

OS Objective A1.1: *Protect agricultural land as an important, sustainable component of the Kings County economy.*

The *2035 General Plan Resource Conservation Element* contains the following policies to limit impacts to agricultural resources:

RC Objective B1.1: *Identify the County's highest priority agricultural lands that are critical to the County's agricultural economy, prime soils, and water availability, and emphasize higher preservation efforts for these areas.*

RC Policy B1.1.1: *Maintain the County's Priority Agricultural Land Model to serve as an information resource in evaluating urban growth and impacts related to the County's agricultural economy and redirect that growth where possible to the lowest priority agricultural land. This model is referenced in Kings County's 2008 Agricultural Land Conversion Study.*

RC Policy B1.1.2: *Use the Priority Agricultural Model as a reference for determining potential economic and resource impacts related to the loss of agricultural land resulting from conversion to urban uses.*

RC Objective B1.2: *Establish feasible mitigation for the loss of agricultural land conversion that is not over burdensome to landowner and development interests, yet enhances long term preservation efforts of the County's highest priority agricultural lands.*

RC Policy B1.2.1: *Require new development that results in the loss of agricultural lands to provide mitigation to offset the loss. The County's Farmland Preservation Mitigation Strategy shall require comparable acreage enrollment in the County's Farmland Security Zone.*

RC Objective C1.1: *Conserve prime agricultural soils, and avoid their conversion to non agricultural uses.*

RC Policy C1.1.1: *Apply one of the four Agriculture land use designations to areas with productive and potentially productive agricultural soils and grazing land.*

RC Policy C1.1.2: *Evaluate the effects of the loss of agricultural soils related to discretionary land use approvals for non-agricultural uses that are allowed in agriculturally zoned land.*

The Armona Community Plan contains the following policies to limit impacts to agricultural resources:

ACP Policy 2A.2.3: *Residential growth should avoid development of prime agricultural lands outside the Armona Community Services District Primary Sphere of Influence, and those protected under "Williamson" Act or Farmland Security Zone Contract.*

ACP Policy 3A.1.3: *The County shall implement agricultural mitigation measures to minimize the loss of prime agricultural land that also serve as agricultural buffers separating communities and cities.*

ACP Policy 3A.1.5: *Agricultural Open space lands shall be protected from urbanization by limiting the extension of District or City water or sewer services.*

The Home Garden Community Plan contains the following policy to limit impacts to agricultural resources:

HGCP Policy 8A.1.1: *Direct new community growth to existing infill lots and the Northwest Growth Area as defined in the Community Plan to prevent premature conversion of agricultural land in other prime agricultural areas.*

The Kettleman City Community Plan contains the following policies to limit impacts to agricultural resources:

KCCP Policy 2A.1.2: *Residential growth should avoid development of prime agricultural lands, and those protected under a "Williamson" Act or Farmland Security Zone Contract.*

KCCP Objective 8A.1: *Preserve prime farmland not needed to accommodate planned urban area growth, and allow agricultural practices to continue in phased growth areas until such time as development is ready to proceed.*

The Stratford Community Plan contains the following policies to limit impacts to agricultural resources:

SCP Objective 8A.1: *Preserve surrounding prime farmland not needed to accommodate planned urban area growth, and allow agricultural practices to continue in the Community Expansion Area until such time as development is ready to proceed.*

SCP Policy 8A.1.1: *Direct new community growth to the Sphere Growth Areas and Community Expansion Area as defined in the Community Plan to prevent the loss of agricultural land in other prime agricultural areas.*

Mitigation Measures. No significant impacts were identified, so no mitigation measures are required.

Significance after Mitigation. Impacts would be less than significant without mitigation.

Impact AG-2 Future development under the 2035 General Plan could conflict with Williamson Act Contracts on some properties. However, existing cancellation requirements under this program and adherence to proposed General Plan policies would reduce potential impacts to a Class III, *less than significant* level.

Presently, there are over 670,000 acres of farmland held in an agricultural preserve within the General Plan area (refer to Figure 4.2-3). The proposed residential and commercial land uses identified in the 2035 General Plan would affect 10 of these parcels, totaling 216 acres. Table 4.2-4 summarizes the Williamson Act parcels that could be converted to non-agricultural uses under the proposed General Plan.

Table 4.2-4. Williamson Act Parcels Impacted by Proposed 2035 General Plan

APN	Acres	Proposed Land Use	Williamson Act Contract Status
002251006000	1.73	Very Low Density Residential	Non-Renewal as of 1/1/2005
004261028000	3.84	Very Low Density Residential	Non-Renewal as of 1/1/2005
023040041000	1.98	Low Density Residential	Current
023040055000	29.54	Low Density Residential	Current
023040056000	4.20	Low Density Residential	Non-Renewal as of 1/1/2005
023040042000	1.63	Low Density Residential	Current
034016015000	102.31	Low Medium Density Residential	Non-Renewal as of 1/1/2006
042100012000	4.77	High Density Residential	Current
005060017000	1.55	Rural Commercial	Current
042100072000	64.64	Rural Commercial	Current

Source: Kings County GIS Data, 2009

As shown in the above table, four of these parcels (totaling 112 acres) are in Non-Renewal status, and will be eligible for development nine years from the Notice of Non-Renewal date according to the applicable land use designation. Of the remaining six parcels that would be impacted, three parcels (totaling 33 acres) are within the adopted Primary Sphere of Influence boundary for the City of Lemoore, and are therefore considered to be a logical place for future development to occur once the contracts expire. A 65-acre parcel identified in Table 4.2-4 is located within the Primary Sphere of Influence for the community of Kettleman City, and is adjacent to existing urban development. Should this property owner decide to not renew the existing preservation contract, this property could be developed after the 9-year non-renewal period has expired. Although the remaining two parcels (totaling 6 acres) are not within an adopted Sphere of Influence boundary, they are adjacent to the existing urbanized areas of Kettleman City and the Grangeville Rural Interface area. Should these property owners opt for non-renewal, these properties would also be logical areas for future growth within the County after the conservation contracts expire.

By restricting urban growth to the areas surrounding the existing cities and community plan areas, the *2035 Kings County General Plan* would reduce potential conflicts with Williamson Act contracts and prevent the loss of agricultural resources to the extent feasible, as described under Impact AG-1. Should the landowners of these 10 parcels decide to pursue development of their property, the 2035 General Plan proposes several policies to further mitigate potential impacts caused by the loss of this farmland. Adherence to these proposed policies, and compliance with the cancellation requirements defined by the Williamson Act program would ensure that conflicts with Williamson Act land remain less than significant.

General Plan Policies Which Reduce Impacts. The proposed *2035 General Plan Land Use Element* contains the following policies which would mitigate potential conflicts with Williamson Act contracts:

LU Policy B1.1.2: *Continue to use Williamson Act and Farmland Security Zone contracts on all priority agricultural lands outside the Primary Sphere of Influence of City and Community District boundaries as defined by LAFCO, so long as State "Open Space Subvention Act" funds remain available.*

LU Policy B1.1.4: *Pursue development of alternative programs for the long term preservation of prioritized agricultural land within the County to supplement existing programs, and ready for the potential phase out of Williamson Act and Farmland Security Zone contracts resulting from State elimination of subvention funding.*

The proposed *2035 General Plan Resource Conservation Element* contains the following policies which would mitigate potential conflicts with Williamson Act contracts:

RC Policy B1.2.2: *Conversion of agricultural land to urban uses shall require payment of mitigation fees that are based on average per acre fee for the establishment of a new Farmland Security Zone creation. All mitigation costs shall be borne by project proponent(s).*

RC Policy B1.2.3: *Under the County's existing program, mitigation fees shall be used for the creation of new Farmland Security Zone contracts only and applied on willing landowner property that is greater than ten acres and located within the "Medium," "Medium-High" and "Highest" Priority Agricultural Land as defined under the County's Priority Agricultural Land Model, and within the eligible Department of Conservation farmland classifications as required by the California Land Conservation Act of 1965.*

RC Policy B1.3.3: *Encourage landowners with property outside the Blueprint Urban Growth Boundary and identified as priority agricultural land to enter into a Farmland Security Zone contract.*

The *Armona and Kettleman City Community Plans* contain the following policies which would mitigate potential conflicts with Williamson Act contracts:

ACP Policy 2A.2.3: *Residential growth should avoid development of prime agricultural lands outside the Armona Community Services District Primary Sphere of*

Influence, and those protected under "Williamson" Act or Farmland Security Zone Contract.

KCCP Policy 2A.1.2: *Residential growth should avoid development of prime agricultural lands, and those protected under a "Williamson" Act or Farmland Security Zone Contract.*

Mitigation Measures. No significant impacts were identified.

Significance after Mitigation. Impacts would be less than significant without mitigation.

Impact AG-3 The 2035 General Plan would alter the present land use pattern in portions of the County and may result in incompatibilities where urban and agricultural uses would directly abut each other. However, the General Plan reduces land use conflicts through plan review and policies. Therefore, impacts that would occur from development would be Class III, *less than significant*.

By design, future development under the 2035 General Plan would be focused in and around existing developed communities. Outside of these communities, the majority of the General Plan area is comprised of active agricultural uses. Development adjacent to agricultural uses can result in potential land use conflicts that could affect both types of uses.

Residents living adjacent to agricultural lands often cite odor nuisance impacts, noise from farm equipment, vehicle conflicts, dust, and pesticide spraying as land use conflicts. Conflicts between farm vehicles and high-speed automobiles used by residents on adjacent roadways can lead to accidents. Pesticide spraying can result in health hazards, while odor and noise are nuisances that can affect the enjoyment of private dwellings. Increased dust from soils and farm equipment can be both a nuisance and a health hazard. These conflicts can also result in reduced property values along the interface with agricultural uses.

The placement of residential development adjacent to farmland can have several negative impacts on farm operations. Direct physical impacts include vandalism to farm equipment or fencing and theft of fruits and vegetables. Soil compaction from trespassers or equestrians can also damage crop potential. Decreased air quality from adjacent urban development can also result in impacts to adjacent farmland.

Placement of residences adjacent to cultivated agriculture can also have economic impacts to growers. Increased regulations and liability insurance to protect the farmer from adjacent urban uses cost time and money. Some farmers whose operations may be sensitive to nearby residences voluntarily limit their hours of operation and do not intensively use the portions of their property closest to urban uses, in effect establishing informal buffer zones on their own property. This has the effect of lowering crop yields, which can potentially affect the long-term economic viability of the agricultural operation. This could ultimately cause the loss of agricultural production due to cessation of operations if the economic impacts become severe enough.

The existing agricultural industries located within the General Plan area are a major contributor to the County's economy, and the 2035 General Plan contains numerous policies to protect the viability of this valuable industry. To reduce potential conflicts, the agricultural land use designations in the General Plan place less intensive agricultural uses near urbanized areas, while allowing more intensive agricultural uses throughout the remainder of the County. However, the previous creation of the small isolated "Rural Interface" areas of development have resulted in conflicts with the surrounding agricultural uses. In addition to the existing Right to Farm Ordinance, the proposed 2035 General Plan contains numerous policies which would reduce potential agricultural/urban conflicts to a less than significant level.

General Plan Policies which Reduce Impacts. Implementation of the following proposed *2035 General Plan Land Use Element* goals and policies would mitigate potential conflicts between urban and agricultural uses.

LU Goal B2 *Agricultural production continues to be supported and enhanced in areas designated for agriculture, while conflicts between agriculture and non-agricultural uses are minimized.*

LU Objective B2.1 *Recognize agriculture as the highest and best use of agricultural designated land, and preserve the right of farmers and agricultural operations to continue customary and usual agricultural practices, and operate in the most efficient manner possible.*

LU Policy B2.1.1: *The primary use of land designated Limited Agriculture, General Agriculture, and Exclusive Agriculture shall remain devoted to agricultural uses and related support services.*

LU Policy B2.1.2: *Parcels created in agricultural designated areas shall comply with the minimum parcel size requirement for the land use designation, except as provided in LU Goal B4 and subsequent objectives and policies.*

LU Policy B2.1.3: *Maintain implementation of the County's "Right to Farm Ordinance" adopted in 1996 to continue placing land owners on notice that they live within an agricultural County and may be subject to agriculture related inconveniences or discomforts.*

LU Objective B2.2 *Minimize and reduce the potential for conflicts between agriculture and non-agricultural urban uses.*

LU Policy B2.2.1: *Apply the Limited Agriculture or Open Space land use designation around Community Districts and Urban Fringe areas to serve as a buffer between urban and intensive agricultural uses.*

LU Policy B2.2.2: *The designation of new residential land use designations in Agriculture Open Space areas shall be restricted in order to preserve productive agricultural land and discourage premature conversion to non-agricultural related land uses.*

LU Goal B3	*Allow agricultural support services within areas designated General Agriculture.*
LU Objective B3.1	*Direct agricultural support services to General Agriculture land use designated areas, while ensuring that services are not harmful to the long term agricultural use of the land or potential future urban growth if within the Blueprint Urban Growth Boundary.*
LU Policy B3.1.1:	*Allow permanent agricultural service and processing facilities in areas designated General Agriculture, while restricting these types of services in Limited Agriculture and Exclusive Agriculture designated areas.*
LU Policy B3.1.2:	*Review of agricultural service establishments under Site Plan Review shall consider the compatibility of such establishments with the potential future urban growth accommodation when proposed within the Blueprint Urban Growth Boundary.*
LU Objective B5.2	*Restrict the locations where dairies may be located to those areas of the County where they are most compatible with surrounding uses, activities and environmental constraints as presented in the Dairy Element.*
LU Policy B5.2.1:	*Proposed new dairies and dairy stock replacement facilities, and expansions of existing dairies may be approved through the Site Plan Review process if they meet all of the criteria in the Dairy Element concerning siting, design, operation, monitoring and reporting.*
LU Goal C1	*Rural pockets of urban uses in the agricultural areas remain limited in geographic area to the extent of pre-existing residential, commercial and industrial land uses to prevent conflicts between agricultural and non-agricultural interests.*
LU Objective C1.1	*Prohibit the expansion of new residential, commercial and industrial land use designations within areas identified as Rural Interface.*
LU Policy C1.1.1:	*Urban type land uses such as Residential, Commercial and Industrial that are located within Rural Interface areas shall remain limited to the previously defined extent of those land use designation areas. Minor adjustments between land uses may be considered so long as land use changes do not result in the expansion of Rural Residential zoning.*
LU Policy C1.1.2:	*Zone district changes in the Rural Interface areas may be considered when the proposed change would result in a similar type zoning or less intensive use, so long as the zoning remains compatible with the General Plan land use designation.*
LU Policy C1.1.3:	*Allow development of existing residential, commercial, and industrial designated land within the Rural Interface areas of Kings County.*

In addition, the proposed *Kettleman City Community Plan* contains the following policy, the implementation of which mitigates potential conflicts between urban and agricultural uses:

KCCP Objective 3A.1 *Establish an Agricultural-Open Space Buffer that serves to protect residents, enhance pedestrian walkability, and provide access to recreational areas.*

Mitigation Measures. No significant impacts were identified, so no mitigation measures are required.

Significance after Mitigation. Impacts would be less than significant without mitigation.

4.3 AIR QUALITY

This section analyzes impacts to local and regional air quality. In addition, this section addresses greenhouse gas (GHG) emissions and climate change. Recent local air quality data was obtained from the San Joaquin Valley Air Pollution Control District (SJVAPCD). Climate change data was accumulated from sources including the Intergovernmental Panel on Climate Change (IPCC) *Fourth Assessment Report* and the California Environmental Protection Agency's Climate Action Team Report to Governor Schwarzenegger and the Legislature. Project-related emissions were quantified using the California Air Resource Board's URBEMIS 2007 (version 9.2.4) computer model. GHG emissions were calculated according to methodologies in the 2008 California Climate Action Registry General Reporting Protocol.

4.3.1 Setting

a. Local Climate and Meteorology. The Kings County plan area is part of the San Joaquin Valley Air Basin (SJVAB), which is defined by the Sierra Nevada to the east, the Coast Ranges to the west, and the Tehachapi mountains to the south. The SJVAB includes eight counties in California's Central Valley: San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and western Kern County. The surrounding topographic features restrict air movement through and out of the basin and, as a result, the SJVAB is highly susceptible to pollutant accumulation over time. Inversion layers are formed in the SJVAB throughout the summer and winter; an inversion layer is created when a mass of warm dry air sits over cooler air near the ground, preventing vertical dispersion of pollutants from the air mass below. During the summer, the San Joaquin Valley experiences daytime temperature inversions at elevations from 2,000 to 2,500 feet above the valley floor, during the winter months, inversions occur from 500 to 1,000 feet above the valley floor.

Warm, dry summers and cooler winters characterize the San Joaquin Valley floor. Summer high temperatures in Kings County often exceed 100° F (degrees Fahrenheit), averaging in the upper 90s. During the summer, wind usually originates from the north end of the San Joaquin Valley and blows in a southeasterly direction. During winter months, the average temperature in the County is in the low 50s. Wind blows from the south end of the San Joaquin Valley toward the north. Low wind speeds and low inversion layers during the winter result in high carbon monoxide and particulate matter concentrations.

b. Climate Change and Greenhouse Gases. Global climate change (GCC) caused by GHG emissions is currently one of the most important and widely discussed scientific, economic and political issues in the United States. GCC refers to any significant change in measures of climate (such as temperature, precipitation or wind) lasting for an extended period (decades or longer) (EPA, 2008). The term climate change is often used interchangeably with the term global warming; however, the phrase "climate change" more accurately conveys that there are other changes in addition to rising temperatures, and that the global distribution of temperature increase is not the same, or even rising in all places (NAS, 2008).

GHGs are gases that trap heat in the atmosphere. Principal GHGs include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), ozone (O_3), fluorinated gases, and water vapor. Different types of GHGs have varying global warming potentials (GWPs). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere. Because GHGs absorb different

amounts of heat, a common reference gas (CO_2) is used to relate the amount of heat absorbed to the amount of the gas emissions, referred to as "CO_2 equivalent" (CO_2e), and is the amount of a GHG emitted multiplied by its GWP. Carbon dioxide has a GWP of one. By contrast, methane (CH_4) has a GWP of 21, meaning its global warming effect is 21 times greater than carbon dioxide on a molecule per molecule basis.

Sources of GHGs. Some GHGs, such as CO_2, CH_4, and N_2O, occur naturally and are emitted to the atmosphere through natural processes and human activities. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. Emissions of CO_2 are largely by-products of fossil fuel combustion, whereas CH_4 results from off-gassing associated with agricultural practices and landfills. Man-made GHGs, which have a much greater heat-absorption potential than CO_2, include fluorinated gases, such as hydro fluorocarbons (HFCs), per fluorocarbons (PFC), and sulfur hexafluoride (SF_6), which are byproducts of certain industrial processes (Cal EPA, 2006b).

The greenhouse effect is a natural process that regulates the earth's temperature. Without the natural heat trapping effect of GHGs, the earth's surface would be about 34° C cooler (Cal EPA, 2006). However, it is believed that emissions from human activities, particularly the consumption of fossil fuels for electricity production and transportation, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations (NCDC, NCOA, 2007). Pre-industrial levels of carbon dioxide (prior to the start of the Industrial Revolution) were about 280 parts per million (ppm), and current levels are about 370 ppm. The concentration of CO_2 in our atmosphere today has not been exceeded in the last 420,000 years, and likely not in the last 20 million years.

In 2006, the United States emitted over seven billion metric tons of CO_2e, about 14 percent of global GHG emissions (USEPA, April 2008). California is a substantial contributor of global GHGs as it is the second largest contributor in the United States and the 16th largest in the world (Association of Environmental Professionals, 2007). Based upon 2004 GHG inventory data (the latest year available) compiled by the California Energy Commission (CEC, December 2006), California produced 492 million metric tons (MMT) CO_2E, or 7 percent of U.S. total. This large number is due primarily to the sheer size of California compared to other states. By contrast, California has one of the lowest per capita GHG emission rates in the country, due to the success of its energy-efficiency and renewable energy programs and commitments that have lowered the state's GHG emissions rate of growth by more than half of what it would have been otherwise (CEC, 2007). Another factor that has reduced California's fuel use and GHG emissions is its mild climate compared to that of many other states (less fuel is consumed for heating homes and businesses).

According to the California EPA Climate Action Team report (CalEPA, 2006), fossil fuel combustion accounted for 81 percent of California's gross CO_2 emissions, while CH_4 and NO_2 accounted for approximately 5.7 percent and 6.8 percent, respectively of gross GHG emissions in California (CO_2e).

Effects of Global Climate Change. GCC has the potential to impact environmental resources primarily through changes to future air temperatures and precipitation patterns. Scientific modeling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21st century than were observed during the

20th century. A warming of about 0.2°C (0.36°F) per decade is projected (IPCC, 2007). According to the Air Resources Board (ARB), some of the potential impacts in California of global warming may include loss of snow pack, sea level rise, more extreme heat days per year, more high ozone days per year, more large forest fires, and more drought years (ARB 2006, 2007). Below is a summary of some of the potential effects reported by an array of studies that could be experienced in California because of GCC:

- *Air Quality*. Higher temperatures facilitate air pollution formation, and could worsen air quality in California. Climate change may increase the concentration of ground-level ozone. Drier conditions could facilitate the potential for large wildfires, which further worsen air quality. However, under wetter conditions, the rains would tend to temporarily clear the air of particulate pollution and reduce the incidence of large wildfires. Additionally, severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses and asthma attacks throughout the state (CEC, February 2006).

- *Water Supply*. The California Department of Water Resources (DWR 2006) report on climate change and its effects on the State Water Project (SWP), the Central Valley Project, and the Sacramento-San Joaquin Delta, reports that "much uncertainty about future water demand [remains], especially [for] those aspects of future demand that will be directly affected by climate change and warming. While climate change is expected to continue through at least the end of this century, the magnitude and, in some cases, the nature of future changes is uncertain." DWR adds that, "[i]t is unlikely that this level of uncertainty will diminish significantly in the foreseeable future" (DWR, 2006). Still, changes in water supply are expected to occur, and many regional studies have shown that large changes in the reliability of water yields from reservoirs could result from only small changes in inflows (Kiparsky 2003; DWR 2005; Cayan 2006, Cayan, D., *et al*, 2006).

- *Hydrology*. As discussed above, climate changes could potentially affect the amount of snowfall, rainfall and snow pack; the intensity and frequency of storms; flood hydrographs (flash floods, rain or snow events, coincidental high tide and high runoff events); sea level rise and coastal flooding; coastal erosion; and the potential for salt water intrusion. Sea level rise can be a product of global warming through two main processes: expansion of sea water as the oceans warm, and melting of ice over land. A rise in sea levels could result in coastal flooding and erosion and could jeopardize California's water supply. Increased storm intensity and frequency could affect the ability of flood-control facilities, including levees, to handle storm events.

- *Agriculture*. California has a $30 billion agricultural industry that produces half the country's fruits and vegetables. Higher CO_2 levels can stimulate plant production and increase plant water-use efficiency. However, if temperatures rise and drier conditions prevail, water demand could increase, crop-yield could be threatened by a less reliable water supply, and greater ozone pollution could render plants more susceptible to pest and disease outbreaks. In addition, temperature increases could change the time of year that certain crops such as wine grapes bloom or ripen, and thus affect their quality (CCCC, 2006).

- *Ecosystems and Wildlife*. Increases in global temperatures and the potential resultant changes in weather patterns could alter global and local scale ecosystems. Soil moisture is likely to decline in many regions, and intense rainstorms are likely to become more frequent. Sea level could rise as much as two feet along most of the U.S. coast. Rising temperatures could have major impacts on plants and animals, including: 1) timing of ecological events; 2) geographic range; 3) species' composition within communities; and 4) ecosystem processes such as carbon cycling and storage (Parmesan, 2004; Parmesan, C. and H. Galbraith 2004).

While the above mentioned potential impacts identify the possible effects of climate change at a global and potentially statewide level, in general scientific modeling tools are currently unable to predict what impacts would occur locally.

c. Local Regulatory Framework. The federal and state governments have been empowered by the federal and state Clean Air Acts to regulate the emission of airborne pollutants and have established ambient air quality standards for the protection of public health. The United States Environmental Protection Agency (USEPA) is the federal agency designated to administer air quality regulation, while the Air Resources Board (ARB) is the state equivalent in the California Environmental Protection Agency. Local control in air quality management is provided by the ARB through multi-county and county-level Air Pollution Control Districts (APCDs). The ARB establishes statewide air quality standards and is responsible for the control of mobile emission sources, while the local APCDs are responsible for enforcing standards and regulating stationary sources. The ARB has established 15 air basins statewide. Kings County is located in the SJVAB, which is under the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD), a multi-county APCD.

Federal and state standards have been established for six criteria pollutants: ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulates less than 10 and 2.5 microns in diameter (PM_{10} and $PM_{2.5}$), and lead (Pb) (refer to Table 4.3-1). California air quality standards are identical to or stricter than federal standards for all criteria pollutants. The local air quality management agency is required to monitor air pollutant levels to assure that air quality standards are met and, in the event they are not, to develop strategies to meet these standards. Depending on whether the standards are met or exceeded, the local air basin is classified as in "attainment" or "nonattainment." The SJVAB is a non-attainment area for the federal and state standards for ozone, state standards for PM_{10}, and federal and state standards for $PM_{2.5}$.

Table 4.3-1. Current Federal and State Ambient Air Quality Standards

Pollutant	Federal Standard	California Standard
Ozone	0.075 ppm (8-hr avg)	0.07 ppm (8-hr avg) 0.09 ppm (1-hr avg)
Carbon Monoxide	9.0 ppm (8-hr avg) 35.0 ppm (1-hr avg)	9.0 ppm (8-hr avg) 20.0 ppm (1-hr avg)
Nitrogen Dioxide	0.053 ppm (annual avg)	0.30 ppm (annual avg) 0.18 ppm (1-hr avg)
Sulfur Dioxide	0.03 ppm (annual avg) 0.14 ppm (24-hr avg) 0.5 ppm (3-hr avg)	0.04 ppm (24-hr avg) 0.25 ppm (1-hr avg)
Lead	1.5 $\mu g/m^3$ (calendar quarter) 0.15 $\mu g/m^3$ (rolling 3-month avg)	1.5 $\mu g/m^3$ (30-day avg)
Particulate Matter (PM_{10})	150 $\mu g/m^3$ (24-hr avg)	20 $\mu g/m^3$ (annual avg) 50 $\mu g/m^3$ (24-hr avg)
Particulate Matter ($PM_{2.5}$)	15 $\mu g/m^3$ (annual avg) 35 $\mu g/m^3$ (24-hr avg)	12 $\mu g/m^3$ (annual avg)

ppm= parts per million
$\mu g/m^3$ = micrograms per cubic meter
Source: California Air Resources Board.

The potential health effects of pollutants for which the SJVAB is in nonattainment are described below.

Ozone. Ozone is produced by a photochemical reaction (triggered by sunlight) between nitrogen oxides (NO_x) and reactive organic gases (ROG). Nitrogen oxides are formed during the combustion of fuels, while reactive organic gases are formed during combustion and evaporation of organic solvents. Because ozone requires sunlight to form, it mostly occurs in serious concentrations between the months of May and October. Ozone is pungent, colorless toxic gases with direct health effects on humans including respiratory and eye irritation and possible changes in lung functions. Groups most sensitive to ozone include children, the elderly, persons with respiratory disorders, and people who exercise strenuously outdoors.

Suspended Particulates. PM_{10} is small particulate matter measuring no more than 10 microns in diameter, while $PM_{2.5}$ is fine particulate matter measuring no more than 2.5 microns in diameter. Both PM_{10} and $PM_{2.5}$ are comprised mostly of dust particles, nitrates and sulfates. The characteristics, sources, and potential health effects associated with the small particulates (PM_{10}) and fine particulates ($PM_{2.5}$) can be very different. PM_{10} is a by-product of fuel combustion and wind erosion of soil and unpaved roads, and is directly emitted into the atmosphere through these processes. PM_{10} is also created in the atmosphere through chemical reactions. $PM_{2.5}$ is generally associated with combustion processes as well as being formed in the atmosphere as a secondary pollutant through chemical reactions. Fine particulate matter poses a serious health threat to all groups, but particularly to the elderly, children, and those with respiratory problems. More than half of the fine particulate matter that is inhaled into the lungs remains there, which can cause permanent lung damage. These materials can damage health by interfering with the body's mechanisms for clearing the respiratory tract or by acting as carriers of an absorbed toxic substance. Particulates in diesel emissions are very small and readily respirable. The particles have hundreds of chemicals adsorbed onto their surfaces, including many known or suspected mutagens or carcinogens.

Air Quality Management. Under state law, the SJVAPCD, in coordination with the eight Valley regional transportation agencies, is also responsible for developing, updating, and implementing the air quality plans to comply with federal and state ambient air quality standards for the SJVAB. Air quality plans are required to be updated every three years. The SJVAPCD has prepared PM_{10} and ozone attainment demonstration plans; these plans identify the regulatory framework necessary to bring the San Joaquin Valley into compliance with the Federal ozone and PM_{10} standards.

Climate Change Regulation. The following regulations address both climate change and GHG emissions.

International and Federal Regulations. The United States is, and has been, a participant in the United Nations Framework Convention on Climate Change (UNFCCC) since is was signed on March 21, 1994. The Kyoto Protocol is a treaty made under the UNFCCC and was the first international agreement to regulate GHG emissions. Although the United States is a signatory to the Kyoto Protocol, Congress has not ratified the Protocol and the United States has not bound itself to the Protocol's commitments (UNFCCC, 2007).

The United States is currently using a voluntary and incentive-based approach toward emissions reductions in lieu of the Kyoto Protocol's mandatory framework. To date, the USEPA has not regulated GHGs under the Clean Air Act. However, the U.S. Supreme Court in *Massachusetts v. EPA* (April 2, 2007) held that the USEPA can, and should, consider regulating motor-vehicle GHG emissions. The USEPA has not yet promulgated federal regulations limiting GHG emissions. The USEPA in December 2007 denied California's request for a waiver to directly limit GHG tailpipe emissions, which prompted a suit by California in January 2008 to overturn that decision.

California Regulations. In June 2005 Governor Schwarzenegger issued Executive Order S-3-05, which established statewide GHG emissions reduction targets. S-3-05 calls for a reduction in GHG emissions to 1990 levels by 2020 and for an 80 percent reduction in GHG emissions below 1990 levels by 2050 (CalEPA, 2006). Additionally, it requires the California Environmental Protection Agency (CalEPA) to prepare biennial science reports on the potential impact of continued global warming on certain sectors of the California economy. The first of these reports, "Scenarios of Climate Change in California: An Overview," was published in February 2006.

In response to S-3-05, the CalEPA created the Climate Action Team (CAT), which, in March 2006, published the 2006 Climate Action Team Report. The 2006 CAT Report identifies a recommended list of strategies that the state could pursue to reduce GHG emissions. These strategies may be implemented by various state agencies, within their existing authority, to ensure that the Governor's targets are met. The strategies include the reduction of passenger and light duty truck emissions, the reduction of idling times for diesel trucks, an overhaul of shipping technology/infrastructure, increased use of alternative fuels, and increased recycling and landfill methane capture.

In 2006, Governor Schwarzenegger signed AB 32, the "California Global Warming Solutions Act of 2006," into law. AB 32 requires the State's global warming emissions to be reduced to 1990 levels by 2020 (essentially a 25 percent reduction below 2005 emission levels – the same requirement as

under S-3-05), and the adoption of rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions. After completing a comprehensive review and update process, the ARB has approved a 1990 statewide GHG level and 2020 limit of 427 MMT CO_2E (ARB, October 2007).

Senate Bill (SB) 97, signed in August 2007, acknowledges that climate change requires analysis under the California Environmental Quality Act (CEQA), and directs the California Office of Planning and Research (OPR) to prepare, develop, and transmit to the Resources Agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions by July 1, 2009. The Resources Agency is required to certify or adopt those guidelines by January 1, 2010.

Governor Schwarzenegger enacted executive Order S-01-07 on January 18, 2007. The order mandates that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. In addition, a Low Carbon Fuel Standard ("LCFS") for transportation fuels is to be established for California.

Senate Bill (SB) 375, signed in August 2008, requires the inclusion of sustainable communities' strategies (SCS) in regional transportation plans (RTPs) for the purpose of reducing GHG emissions. The bill requires ARB to set regional targets for the purpose of reducing GHG emissions from passenger vehicles, for 2020 and 2035. On January 23, 2009 ARB appointed a Regional Targets Advisory Committee (RTAC) to provide recommendations on factors to be considered and methodologies to be used in the ARB target setting process, as required under SB 375. The Committee must provide its recommendations in a report to ARB by September 30, 2009.

Local Regulations and CEQA Requirements. GHG emissions contributing to global climate change have only recently been addressed in CEQA documents, such that CEQA and case law do not yet provide guidance relative to their assessment. The State of California, or any particular air pollution control district, including the SJVAPCD, has not adopted quantitative significance thresholds for this topic. OPR is directed under Senate Bill 97, to prepare, develop and transmit to the Resources Agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions through CEQA by July 1, 2009. Pursuant to SB 97, OPR has proposed draft CEQA guidelines for determining significance of GHG emissions and climate change. The guidelines are currently under review. In the interim, OPR has recently completed a Technical Advisory (June 2008) for addressing climate change in CEQA documents to guide the structure of climate change analysis. In combination, the California Air Pollution Control Officers Association [CAPCOA] has published a white paper, *CEQA and Climate Change* (January 2008), and the California Climate Action Registry has published a General Reporting Protocol (April 2008), which include methodologies to assess GHG emissions.

d. Current Ambient Air Quality. The SJVAPCD monitors air pollutant levels to assure that air quality standards are met, and if they are not met, to also develop strategies to meet the standards. Depending on whether or not the standards are met or exceeded, the air basin is classified as being in "attainment" or as "non-attainment." The SAVB, in which the project site is located, is in non-attainment for the federal and state 8-hour ozone (O_3) standards, as well as severe non-attainment for the state 1-hour ozone standard. The SJVAPCD is in non-attainment for the state PM_{10} and $PM_{2.5}$ standards, as well as the federal $PM_{2.5}$ standard. On September 25,

2008, EPA redesignated the San Joaquin Valley to attainment for the federal PM_{10} standard. The county is in attainment or unclassified for all other standards.

Table 4.3-2 summarizes the annual air quality data for the local airshed. The California Air Resources Board (CARB) maintains over 60 air quality monitoring stations throughout California, with three monitoring stations inside Kings County, including the Hanford and Corcoran monitoring sites, which are operated by the SJVAPCD, and the Santa Rosa Rancheria monitoring site, which is operated for informational purposes by the Santa Rosa Rancheria Tribe. The data collected at the SJVAPCD-operated stations, shown below in Table 4.3-2, is considered to be generally representative of the baseline air quality experienced in the plan area.

Table 4.3-2. Ambient Air Quality Data

Pollutant	2005	2006	2007
Ozone, ppm - Worst Hour[1]	0.120	0.127	0.102
Number of days of State exceedances (>0.09 ppm)[1]	6	7	2
Number of days of Federal exceedances (>0.075 ppm)[1]	24	37	8
Particulate Matter <10 microns, $\mu g/m^3$ Worst 24 Hours[1]	118.0	150.0	106.0
Number of samples of State exceedances (>50 $\mu g/m^3$)[1]	110.1[3]	124.8[3]	145.2[3]
Number of samples of Federal exceedances (>150 $\mu g/m^3$)[1]	0	0	0
Particulate Matter <2.5 microns, $\mu g/m^3$ Worst 24 Hours[2]	92.5	74.2	75.0
Number of days Federal exceedances[2]	33.1[3]	30.0[3]	55.0[3]

[1] Hanford S Irwin Street Station
[2] Corcoran Patterson Avenue Station
[3] PM sampling does not occur daily; the number of days over the State 24-Hour PM_{10} standard provides the estimated number of days in the year that the standard would have been exceeded had sampling occurred every day of the year.
Source: CARB, 2005, 2006, & 2007 Annual Air Quality Data Summaries available at http://www.arb.ca.gov.

The primary pollutants of concern in the San Joaquin Valley are ozone (O_3) and PM_{10}. Statistics indicated that there were eight Federal and two State ozone exceedances of the ozone standard in 2007. There was a decrease for all of the ozone standards from the previous year. The State standard for PM_{10} was exceeded 145.2 times in 2007, although the federal standard was not exceeded. PM_{10} sampling occurs less than daily; the number of days over the State 24-Hour PM_{10} standard provides the estimated number of days in the year that the standard would have been exceeded had sampling occurred every day of the year.

Sensitive Receptors. Ambient air quality standards have been established to represent the levels of air quality considered sufficient, with an adequate margin of safety, to protect public health and welfare. They are designed to protect that segment of the public most susceptible to respiratory distress, such as children under 14; the elderly over 65; persons engaged in strenuous work or exercise; and people with cardiovascular and chronic respiratory diseases. The majority of sensitive receptor locations are therefore schools and hospitals. There are medical facilities located in the incorporated cities of Hanford, Corcoran, Lemoore, and Avenal, including the Central Valley General Hospital, which is located in Hanford. Several other community hospitals and clinics are located throughout the County. School locations are identified in Section 4.12, *Public Services*.

4.3.2 Impact Analysis

a. Methodology and Significance Thresholds. The analysis of the proposed General Plan Update's air quality impacts follows the guidance and methodologies recommended in the SJVAPCD *Guide for Assessing and Mitigating Air Quality Impacts* (January 2002) as well as Appendix G of the State CEQA Guidelines.

The SJVAPCD has adopted numeric significance thresholds for individual development projects. However, use of these thresholds would not be appropriate for a General Plan since they are intended for use in evaluating the effects of individual projects while the General Plan EIR considers the cumulative effect of all individual projects within the City. Therefore, the criteria used to determine the significance of impacts are taken from the checklist contained in Appendix G of the State CEQA Guidelines. According to the CEQA Guidelines, General Plan implementation would result in a significant impact to air quality if it would:

- *Conflict with or obstruct implementation of the applicable air quality plan;*
- *Violate any air quality standard or contribute substantially to an existing or project air quality violation;*
- *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed qualitative thresholds for ozone precursors);*
- *Expose sensitive receptors to substantial pollutant concentrations; or*
- *Create objectionable odors affecting a substantial number of people.*

Local Pollutant Health Effects. In the health studies cited by the ARB, the association of traffic-related emissions with adverse health effects was seen within 1,000 feet and was strongest within 300 feet. In addition to the respiratory health effects in children, proximity to freeways has been found to increase potential cancer risk and contributes to total particulate matter exposure. Diesel particulate matter represents about 70 percent of the potential cancer risk from the vehicle and diesel particulate pollution drops off about 70 percent at 500 feet from a freeway. Based on these findings, the ARB recommends avoiding siting of new sensitive land uses within 500 feet of freeways, urban roads that carry 100,000 vehicles/day, or rural roads that carry 50,000 vehicles/day.

Objectionable Odors. In the *Guide for Assessing and Mitigating Air Quality Impacts*, the SJVAPCD has determined some common types of facilities that have been known to produce odors in the San Joaquin Valley. These are presented in Table 4.3-3 along with a reasonable distance from the source where the degree of odors could possibly be significant. If the proposed project would result in sensitive receptors being located closer than the screening level distances indicated in Table 4.3-3, an emitter-specific catalogue of historic odor complaints should be conducted.

Table 4.3-3. Project Screening Trigger Levels for Potential Odor Sources

Type of Facility[1]	Distance
Wastewater Treatment Facilities	2 miles
Sanitary Landfill	1 mile
Transfer Station	1 mile
Composting Facility	1 mile
Petroleum Refinery	2 miles
Asphalt Batch Plant	1 mile
Chemical Manufacturing	1 mile
Fiberglass Manufacturing	1 mile
Painting/Coating Operations (e.g., Auto Body Shops)	1 mile
Food Processing Facility	1 mile
Feed Lot/Dairy	1 mile
Rendering Plant	1 mile

[1] *Recognizing that this list of facilities is not meant to be all-inclusive; Lead Agencies are directed to evaluate facilities not included in the table or projects separated by greater distances than indicated if warranted by local conditions or special circumstances.*
Source: SJVAPCD Guide for Assessing and Mitigating Air Quality Impacts

The Kings County Association of Governments (KCAG), in conjunction with local jurisdictions (Avenal, Corcoran, Hanford, Lemoore, and Kings County), has developed a Regional Housing Needs Allocation (RHNA) Plan for the years 2007 through 2014. The Air Quality Management Plan (AQMP) is based on KCAG's population projections; therefore, consistency with the AQMP is based on consistency with population projections in the RHNA.

Global Climate Change. Pursuant to SB 97, OPR has proposed draft CEQA guidelines for determining significance of GHG emissions and climate change. The guidelines are currently under review. In the interim, the climate change analysis is based on the guidance from CAPCOA in their CEQA and Climate Change white paper (January 2008), and from OPR in their Technical Advisory, entitled *CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act Review* (June 19, 2008). The OPR Technological Advisory provides the overarching structure of climate change discussions, while the CAPCOA document provides the technological methodologies to assess GHG emissions.

The OPR Technical Advisory is a guidance document developed in cooperation with the California Resources Agency, the CalEPA and ARB. The document recommends an approach for agencies to analyze GHG emissions for projects (including programs, such as the General Plan update). It recommends three basic steps: identify and quantify the GHG emissions; assess the significance of the impact on climate change; and if the impact is found to be significant, identify alternatives and/or mitigation measures that will reduce the impact below significance.

The information provided in this section is based on recently established California goals for reducing GHG emissions as well as an emissions inventory developed for the 2035 General Plan. Kings County, as the lead agency, has no duty to establish a significance threshold for GHG emissions. Therefore, this analysis is specific to the 2035 General Plan and does not establish thresholds for the County or set precedence for the type of analysis in a climate change analysis, as this discipline is still evolving and is expected to undergo multiple renditions before standards and thresholds are published.

CAPCOA conducted an analysis of various approaches and significance thresholds, ranging from a zero threshold (all projects are cumulatively considerable) to a high of 40,000 to 50,000 metric tons CO_2E per year. Among the significance thresholds proposed by CAPCOA, Approach 1 of the Non-Zero GHG thresholds ("Threshold 1.1") is most appropriate to evaluate the 2035 General Plan as it is the only threshold that is derived from AB 32. Threshold 1.1 of the CAPCOA document uses the 2020 target developed by AB 32 and recommends that all discretionary projects incorporate mitigation measures recommended in the CAPCOA White Paper in order to achieve a measurable 28 percent to 33 percent reduction from projected unmitigated GHG emissions to be considered less than significant. This GHG significance threshold, which relies on percentage-based reductions, is appropriate for the 2035 General Plan given the limitations of current information and scientific modeling available for GHG at this time, since percentage-based reductions (unlike some of the other thresholds) can be measured using existing tools. As such, the following guideline is used in this analysis of the proposed 2035 General Plan, consistent with Threshold 1.1 of the CAPCOA document to determine the significance level of GHG and GCC related impacts.

> *Does the project/program comply with the provisions of an adopted Greenhouse Gas Reduction Plan or Strategy? If no such Plan or Strategy is applicable, would the project/program significantly hinder or delay California's ability to meet the reduction targets contained in AB-32 through greenhouse gasses emitted during either construction or operation?*

Calculations of carbon dioxide, methane, and nitrous oxide are provided to identify the magnitude of potential project effects. The analysis focuses on carbon dioxide (CO_2), nitrous oxide (N_2O) and methane (CH_4) as these are the GHG emissions that the project would emit in the largest quantities as compared to other GHGs (such as chlorofluorocarbons [CFCs]). Calculations were based on the methodologies discussed in the CAPCOA white paper (January 2008) and included the use of the California Climate Action Registry General Reporting Protocol (March 2007).

Indirect Emissions from Electricity Use. Operational emissions of CO_2 were quantified using ARB's URBEMIS 2007 (version 9.2.4) computer model. Nitrous oxide (N_2O) and methane (CH_4) emissions were quantified using the California Climate Action Registry General Reporting Protocol (April 2008) indirect emissions factors for electricity use (see Appendix B for calculations). The calculations and emission factors contained in the General Reporting Protocol were selected based on technical advice provided to the Registry by the California Energy Commission. This methodology is considered to be reasonable and reliable for use as it has been subjected to peer review by numerous public and private stakeholders and in particular by the California Energy Commission, and is recommended by CAPCOA (January 2008).

The following equations are used to determine total emissions from Indirect Electricity Use:

CH_4 Emission (metric tons) =
Electricity Use (kwH) x CH_4 Electricity Emission Factor (0.0067 lbs/MWh) / 2,204.62 lbs/metric tons

N_2O Emission (metric tons) =
Electricity Use (kwH) x N_2O Electricity Emission Factor (0.0037 lbs/MWh) / 2,204.62 lbs/metric tons

Equations to determine Carbon Dioxide Equivalent (CO_2e) include:

Metric Tons of CO_2e = Metric tons of CH_4 x 21(GWP CH_4)

Metric Tons of CO_2e = Metric tons of N_2O x 310 (GWP N_2O)

Direct Emissions from Mobile Combustion. Emissions of CO_2 were quantified using the CARB's URBEMIS 2007 (version 9.2.4) computer model. Nitrous oxide (N_2O) and methane (CH_4) emissions were quantified using the California Climate Action Registry General Reporting Protocol (April 2008) direct emissions factors for mobile combustion. Total daily mileage of a buildout scenario under the draft General Plan was calculated in URBEMIS 2007 and extrapolated out to derive total annual mileage. Emission rates were based on the vehicle mix output generated by URBEMIS and the emission factors found in the California Climate Action Registry General Reporting Protocol.

Equations to determine total emission from fuel use in Motor Vehicles include:

CH_4 Emission (metric tons) =
Emission Factor by Vehicle and Fuel Type (g/mi) x Annual Mileage (mi) x 0.000001 metric tons/g

N_2O Emission (metric tons) =
Emission Factor by Vehicle and Fuel Type (g/mi) x Annual Mileage (mi) x 0.000001 metric tons/g

b. Project and Cumulative Impacts.

Impact AQ-1 Development facilitated by the 2035 General Plan would result in an increase in air pollutant emissions within the Kings County portion of the San Joaquin Valley Air Basin. Although maximum buildout of the General Plan could accommodate up to about 16,863 new residents, this growth is accounted for in the regional Air Quality Management Plan. In addition, policies contained in the 2035 General Plan aimed at limiting future growth in population, traffic, and energy consumption would be expected to limit emissions to levels consistent with regional forecasts. Impacts would therefore be Class III, l*ess than significant*.

Long-term emissions associated with future development in Kings County in accordance with the 2035 General Plan are those associated with vehicle trips and stationary sources (electricity and natural gas). Emissions associated with individual projects, depending on project type and size, could exceed project-specific thresholds established by the SJVAPCD. However, such projects will be required to undergo independent project-level CEQA review and include mitigation measures to address potential project-level impacts.

The discussion that follows addresses consistency of the 2035 General Plan with the RHNA growth forecasts upon which the AQMP is based.

Consistency with RHNA Growth Forecasts. Maximum development facilitated by the 2035 General Plan could add an estimated 4,800 dwelling units, 1.8 million square feet of commercial/office space, and 4.5 million square feet of industrial space. Based on the unincorporated county average of 3.513 persons per household, the projected 4,800 new residences would add 16,863 people to the current population. Were maximum buildout to occur, the estimated 16,863 new residents would bring the unincorporated population of Kings County to 171,295 by 2035. The RHNA includes population forecasts through 2014 for the county and each of its incorporated areas. Using the methodologies described in the RHNA, the population in 2035 is projected to be 197,048, which is greater than the possible General Plan buildout population of 171,295. In addition, the maximum buildout estimate assumes that all vacant properties in Kings County would be developed by 2035, and that all of the proposed Community Plan areas and mixed-use districts would be redeveloped over that same timeframe. Therefore, development facilitated by the 2035 General Plan is considered consistent with the SJVAPCD and KCAG assumptions with respect to population growth.

General Plan Policies which Reduce Impacts. The Land Use Element of the proposed 2035 General Plan includes the following policies intended to limit growth and promote intensification and reuse of existing developed lands within Kings County, which will have the effect of limiting air emissions relative to what may otherwise occur:

LU Policy B1.2.2 *Maintain the Limited Agriculture designation around Community Districts until substantial build out of a Community District has occurred according to an adopted Community Plan, and consideration of new locations for urban uses is necessary to accommodate additional population growth.*

LU Policy C1.1.1 *Urban type land uses such as Residential, Commercial, and Industrial that are located within Rural Interface areas shall remain limited to the previously defined extent of those land use designation areas. Minor adjustments between land uses may be considered so long as land use changes do not result in the expansion of Rural Residential zoning.*

LU Policy D1.2.1 *Integrate Downtown Mixed Use and Mixed Use into centralized community downtowns or community core areas to allow various mixtures of commercial and residential uses, and replace the Central Commercial land use designation.*

LU Policy D1.2.2 *Prioritize infill development of vacant and underutilized parcels within the existing special district boundaries where water and sewer service are available to reduce outward growth pressure and costly expansion of district facilities.*

LU Policy D1.4.3 *Encourage the revitalization of existing residential neighborhoods.*

By promoting intensification and reuse of developed non-agricultural lands as opposed to low density development on undeveloped lands, the 2035 General Plan aims to limit growth and reduce reliance on single-occupancy automobiles. Development facilitated by the 2035 General

Plan is not anticipated to exceed the RHNA growth forecasts upon which the AQMP is based. Therefore, the General Plan would be consistent with the AQMP.

Mitigation Measures. Development accommodated by the 2035 General Plan would result in an incremental increase in emissions. However, individual development projects that could occur would be required to undergo CEQA review and would be subject to the SJVAPCD thresholds and policies contained in the draft General Plan to reduce air quality impacts. From a programmatic perspective, long-term development under the proposed General Plan is consistent with regional growth and AQMP forecasts, so program level impacts would be less than significant, particularly since the proposed General Plan includes policies applicable to individual development to address air pollution impacts. No mitigation measures beyond adherence to the proposed policies in the 2035 General Plan would be required.

Significance after Mitigation. Impacts would be less than significant without mitigation.

Impact AQ-2 Individual development projects facilitated by the 2035 General Plan would generate construction-related emissions. Such emissions may result in temporary adverse impacts to local air quality. However, these emissions can be mitigated on a specific development basis and impacts would be Class III, *less than significant*.

Construction activity that would be facilitated by the 2035 General Plan would cause temporary emissions of various air pollutants. Ozone precursors NO_x and CO would be emitted by the operation of construction equipment, while fugitive dust (PM_{10}) would be emitted by activities that disturb soil, such as grading and excavation, road construction and building construction. As previously stated, the Kings County portion of the SJVAB is designated non-attainment for State and federal ozone standards and the State PM_{10} standard. Additionally, the potential release of asbestos may occur during building demolition. Information regarding specific development projects, soil types, and the locations of receptors is necessary to quantify the level of impact associated with construction activity.

Construction activity that could be facilitated by the 2035 General Plan could occur throughout Kings County. However, it is anticipated that the areas where the highest amount of construction activity would occur are within the Community Plan areas of Armona, Home Garden, Kettleman City, and Stratford. Individual developments in these and other areas of the County would be subject to independent environmental review under CEQA. Depending upon the development type and size, maximum daily emissions associated with individual projects could potentially exceed SJVAPCD significance thresholds.

General Plan Policies which Reduce Impacts. The proposed Air Quality Element of the 2035 General Plan includes the following policies specifically intended to mitigate construction air pollutant emissions from individual projects:

AQ Policy C1.1.1 *Assess and mitigate project air quality impacts using analysis methods and significance thresholds recommended by the SJVAPCD.*

AQ Policy C1.1.3 *Ensure that air quality and climate change impacts identified during CEQA review are minimized and consistently and fairly mitigated at a minimum, to levels as required by CEQA.*

AQ Policy C1.1.6 *Encourage and support the development of innovative and effective mitigation measures and programs to reduce air quality and climate change impacts through proactive coordination with the SJVAPCD, project applicants, and other knowledgeable and interested parties.*

AQ Policy F2.1.1 *Coordinate with the SJVAPCD to ensure that construction, grading, excavation and demolition activities within County's jurisdiction are regulated and controlled to reduce particulate emissions to the maximum extent feasible.*

AQ Policy F2.1.2 *Require all access roads, driveways, and parking areas serving new commercial and industrial development are constructed with materials that minimize particulate emissions and are appropriate to the scale and intensity of use.*

The above-mentioned policies would reduce overall air quality impacts related to construction. The SJVAPCD's approach to CEQA analyses of construction PM_{10} impacts is to require implementation of comprehensive control measures rather than to require detailed quantification of emissions (although CEQA Lead Agencies may elect to do so). The SJVAPCD has determined that compliance with PM_{10} control measures contained in the SJVAPCD's Guide for Assessing and Mitigating Air Quality Impacts (refer to Tables 6-2 and 6-3 in that document) will constitute sufficient mitigation to reduce the PM_{10} impacts related to construction of a project to a level considered less than significant. Adherence to applicable General Plan policies and SJVAPCD guidelines would reduce potential construction-related impacts to a less than significant level.

Mitigation Measures. Additional mitigation beyond adherence to applicable proposed General Plan policies and SJVAPCD rules is not required.

Significance after Mitigation. Impacts would be less than significant without mitigation.

Impact AQ-3 The 2035 General Plan would facilitate residential development in proximity to high-volume local roadways, which would expose residents to elevated health risks. Impacts associated with placement of residential development near these highways would be Class III, *less than significant*.

The ARB publication, *Air Quality And Land Use Handbook: A Community Health Perspective* (April 2005), indicates that living close to high traffic and the associated emissions may lead to adverse health effects beyond those associated with regional air pollution in urban areas. Studies cited by the ARB report associations between residential proximity to high traffic roadways and a variety of respiratory symptoms, asthma exacerbations, and decreases in lung function in children. Key health findings cited in the ARB study include:

- *Reduced lung function in children was associated with traffic density, especially trucks within 1,000 feet and the association was strongest within 300 feet*
- *Increased asthma hospitalizations were associated with living within 650 feet of heavy traffic and heavy truck volume*
- *Asthma symptoms increased with proximity to roadways and the risk was greatest within 300 feet*
- *Asthma and bronchitis symptoms in children were associated with proximity to high traffic in a San Francisco Bay Area community with good overall regional air quality*
- *A San Diego study found increased medical visits in children living within 550 feet of heavy traffic*

Interstate 5, State Route 41, State Route 43, and State Route 198 are the highest-volume roadways in Kings County. The Existing Conditions Background Report by Omni-Means projects average daily traffic on county roadways for buildout conditions under the 2035 General Plan. According to the report, the highest projected average daily traffic (ADT) on Interstate 5 under buildout conditions (2035) would be 52,990, the highest ADT on State Route 41 would be 43,840, the highest ADT on State Route 43 would be 18,590, and the highest ADT on State Route 198 would be 67,710.

Interstate 5 is considered a freeway for this analysis; however, no residential development associated with the 2035 General Plan would occur within 500 feet of Interstate 5. State Route 41, State Route 43, and State Route 198 would be considered urban roadways within the boundaries of the Community Plans. Each of these roadways carries an ADT below ARB's health risk threshold for urban roads of 100,000 ADT. Therefore, future development is consistent with ARB recommendations, and impacts would be less than significant.

General Plan Policies which Reduce Impacts. The following policies from the *Air Quality Element* of the 2035 General Plan are designed to limit traffic and particulate emissions from area roadways to the extent possible, reducing the likelihood that roadway traffic would cause a significant health risk to area residents:

AQ Policy D2.1.1 *Request project sponsors to demonstrate that all feasible TCMs and other measures have been incorporated into project designs which increase the effective capacity of the existing road network prior to seeking approval to construct additional roadway capacity, such as additional lanes or new highways.*

AQ Policy F1.1.1 *Locate residential development projects and projects categorized as sensitive receptors an adequate distance from existing and potential sources of hazardous emissions such as major transportation corridors, industrial sites, and hazardous material locations in accordance with the provisions of ARB's Air Quality and Land Use Handbook.*

AQ Policy F2.1.3 *Develop a program to reduce PM10 emissions from County maintained roads to the maximum extent feasible.*

Mitigation Measures. Impacts would be less than significant; therefore, no mitigation is required.

Significance after Mitigation. Impacts would be less than significant without mitigation.

Impact AQ-4 The 2035 General Plan would facilitate construction of projects with the potential to cause nuisance odors. Impacts associated with objectionable odors would be Class II, *significant but mitigable*.

Future development under the 2035 General Plan would allow commercial, industrial, and agricultural uses. All of these land uses have the potential to generate odor nuisance effects to the public or to adjoining residents. Odors from these uses could present significant impacts to neighboring residences. The 2035 General Plan proposes mixed use development within the Community Plan areas. Future residents within mixed use development may be exposed to odor impacts resulting from the development of residences in close proximity to commercial uses that may produce odors. Therefore, impacts would be potentially significant. Examples of commercial uses that have the potential to cause odor nuisance impacts include agricultural sales, fast food, photographic studios, and laundry facilities. Industrial and agricultural uses may also generate nuisance odors.

The 2035 General Plan and Community Plans do not contain policies specifically designed to limit odor nuisances at sensitive receptors. However, the Land Use Element, Air Quality Element, and Community Plans contain various policies generally intended to site potential sources of nuisance away from sensitive receptors. However, the 2035 General Plan does not specifically propose any of the uses described in Table 4.3-3, which are noted by the SJVAPCD as requiring project-level odor analysis if they are within one to two miles of sensitive receptors. Under the 2035 General Plan, any of these uses would be located within the Heavy Industrial land use designation, which is located along major transportation corridors and farther away from sensitive land uses. Similarly, agricultural uses that may produce nuisance odors would be located in areas designated General Agriculture or Exclusive Agriculture, which are generally buffered from sensitive uses by the Limited Agriculture designation.

Mitigation Measures. The following mitigation measures are required:

AQ-4 **Mixed Use Restrictions.** Mixed use development that includes residential uses shall not include photographic studios, laundry facilities, or other types of development that could generate odors, such as the sales of agricultural products, fast food establishments, photographic studios, and laundry facilities. This language shall be added to the definition for the Downtown Mixed Use and Mixed Use land use designations, as part of the final 2035 General Plan Land Use Element.

Significance after Mitigation. With implementation of the above mitigation measures, development under the 2035 General Plan would have less than significant odor nuisance impacts.

Impact AQ-5 Development facilitated by the 2035 General Plan would result in an increase in GHGs within the San Joaquin Valley Air Basin. Buildout of the 2035 General Plan would accommodate up to 16,863 new residents, and increase vehicle miles traveled by up to 1,203,461. New development associated with the General Plan would hinder the implementation of AB-32. Impacts would be Class II, *significant but mitigable*.

As there are no adopted thresholds for GHGs anticipated until June 2009, this analysis conforms closely to the methodologies and thresholds recommended in the AEP *White Paper on Global Climate Change* (2007), as discussed in Section 4.3.2(a) of this document.

Quantification of GHG Emissions. The following section inventories projected GHG emissions due to buildout of the proposed General Plan Update within Kings County

Area Source Emissions. Development under the draft General Plan at buildout would consume approximately 110,477,256 kWH/year based on energy demand factors from the CAPCOA *CEQA and Climate Change* white paper (January 2008). The generation of electricity through combustion of fossil fuels typically yields carbon dioxide, and to a smaller extent nitrous oxide and methane. As discussed above, annual electricity emission can be calculated using the California Climate Action Registry Protocols. Table 4.3-4 shows the estimated area source emissions of GHGs from the 2035 General Plan. Carbon dioxide emission estimates using the URBEMIS model also take into account emissions from other area source sources such as natural gas use for space heating, and are included in the CO_2 totals below.

Table 4.3-4. Estimated Annual Area Source Emissions of Greenhouse Gases

Emission Source	Annual Emissions	
	Emissions	CO_2e
Carbon Dioxide (CO_2)[1]	28,858.2 tons (short, US)	26,179.7 metric tons CO_2e
Carbon Dioxide (CO_2)[2]	48,538.7 tons (short, US)	44,033.6 metric tons CO_2e
Methane (CH_4)[2]	0.4 metric tons	7.8 metric tons CO2e
Nitrous Oxide (N_2O)[2]	0.2 metric tons	63.4 metric tons CO2e
	Project Total	**70,284.4 metric tons CO_2e**

Source:
[1] Operational Emissions from URBEMIS 2007 (version 9.2.4).
[2] California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, June 2008, page 39-46.

Operational Emissions. The URBEMIS model estimates emissions from vehicle trips as a result of buildout under the 2035 General Plan. Table 4.3-5 shows the estimated operational emissions of GHGs from the draft General Plan.

Table 4.3-5. Estimated Annual Operational Emissions of Greenhouse Gases

Emission Source	Annual Emissions	
	Emissions	CO_2e
Carbon Dioxide (CO_2)[1]	244,678.0 tons (short, US)	221,968.2 metric tons CO_2e
Methane (CH_4)[2]	177.2 metric tons	3,720.3 metric tons CO_2e
Nitrous Oxide (N_2O)[2]	198.7 metric tons	61,605.4 metric tons CO_2e
	Project Total	**287,293.9 metric tons CO_2e**

Source:
[1] Operational Emissions from URBEMIS 2007 (version 9.2.4).
[2] California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, June 2008, page 39-46.

Combined Area Source and Operational Emissions. Table 4.3-6 lists the combined area source and operational emissions for buildout of the 2035 General Plan. Using the numbers described above, the combined area source and operational GHG emissions for the proposed project total approximately 357,578.3 metric tons per year in carbon dioxide equivalency units. This total represents roughly 0.073 percent of California's total 2004 emissions of 492 million metric tons. These emission projections indicate the majority of the 2035 General Plan GHG emissions are associated with vehicle miles traveled (about 78 percent), and to a lesser extent from electricity consumption (about 22 percent).

Table 4.3-6. Combined Annual Emissions of Greenhouse Gases

Emission Source	Annual Emissions
Area Source	70,284.4 metric tons CO_2e
Operational	287,293.9 metric tons CO_2e
2035 General Plan Total	**357,578.3 metric tons CO_2e**

Sources: Operational Emissions from URBEMIS 2007 (version 9.2.4).
California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, June 2008.

General Plan Policies which Reduce Impacts. The Air Quality Element of the 2035 General Plan includes policies specifically intended to limit, mitigate, and reduce GHG emissions in Kings County. These policies include the following:

AQ Policy C1.1.2 *Assess and mitigate project greenhouse gas/climate change impacts using analysis methods and significance thresholds as defined or recommended by the SJVAPCD, KCAG or California Air Resources Board (ARB) depending on the type of project involved.*

AQ Policy G1.1.1 *As recommended in ARB's Climate Change Adopted Scoping Plan (December 2008), the County establishes an initial goal of reducing greenhouse gas emissions from its internal governmental operations and land use activities within its authority to be consistent with ARB's adopted reduction targets for the year 2020. The County will also work with KCAG to ensure that it achieves its proportionate fair share reduction in greenhouse gas emissions as may be identified under the provisions of SB 375 (2008 Chapter 728) for any projects or activities requiring approval from KCAG.*

AQ Policy G1.1.3 *County staff should explore opportunities to utilize the net emission reductions identified through the confined animal feeding operation approval process to offset greenhouse gas emissions on a regional basis.*

Once the SJVAPCD, KCAG, or ARB have identified analysis methodologies and significance thresholds for assessing GHG impacts, pursuant to SB 97, impacts from development under the 2035 General Plan would be assessed and mitigated on a project-level basis. OPR is required by SB 97 to prepare, develop, and transmit to the Resources Agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions by July 1, 2009, and the Resources Agency is required to certify or adopt those guidelines by January 1, 2010.

Determination of the significance of GHG emissions impacts is predicated upon a project's consistency with a GHG Reduction Plan or applicable strategy for Kings County or, in the absence of such a plan, compliance with AB 32 [refer to Section 4.3.2(a)]. General Plan Policy AQ G1.1.1 would ensure that Kings County would be consistent with the regional GHG Reduction Plan developed under SB 375, and ensure County compliance with regional efforts to meet GHG emissions targets in AB 32. Impacts would be less than significant.

Mitigation Measures. Additional mitigation beyond adherence to applicable proposed General Plan policies and SJVAPCD rules is not required.

Significance after Mitigation. Impacts would be less than significant without mitigation.

4.4 BIOLOGICAL RESOURCES

4.4.1 Setting

a. Plan Area Habitat Types. Kings County is located in the southern Central Valley, also known as the San Joaquin Valley. The majority of the County is located on the valley floor with the southwest portions of the County extending into the foothills of the Temblor Range. Agricultural, urban, and military uses have substantially altered the vegetative cover throughout most of the valley floor, replacing the original native grasslands, valley sink scrub, valley saltbush scrub, freshwater marsh, and riparian natural communities. Remaining natural communities in the County include: valley and foothill grassland; blue oak-foothill pine woodland; chaparral; riparian forest, woodland and scrub; valley sink scrub; interior coast range and valley saltbush scrubs; valley freshwater marsh; and northern claypan vernal pool. Generalized habitat mapping for Kings County is illustrated on Figure 4.4-1 as developed under the Fire and Resource Assessment Program (FRAP) by the California Department of Forestry and Fire Protection and US Forest Service vegetation mapping derived from satellite imagery. The individual 2.5 kilometer square vegetation polygons were assigned California Wildlife Habitat Relationship (CWHR, 1988) habitat types as shown on Figure 4.4-1. Please note that several constructed drainage reservoirs in the southern portion of the County east of Interstate 5 have been misidentified by this mapping as "urban" because the dried beds provide a similar color signature as that land use to the automatic mapping program; several sparsely vegetated and disturbed grasslands and saltbush scrub west of Interstate 5 are also so identified. Similarly, several fallow fields and other agricultural lands have been mapped as "grassland;" nonetheless, Figure 4.4-1 illustrates the general pattern of native vegetation and wildlife habitats remaining in the County. Figure 4.4-2 shows the previously documented locations of special status species and sensitive communities discussed below.

Remaining grasslands within the County occur primarily in the rolling hills in the southwestern portion of the County and as a band across the south County, although some undeveloped parcels north of Corcoran and west of Guernsey still support grasslands. Scattered parcels supporting valley sink scrub and valley saltbush scrub (combined into alkali desert scrub on Figure 4.4-1) and freshwater marsh still occur in the valley. Similarly, riparian habitat, woodland, and scrub associated with the Kings River, Cross Creek, the Kern River channel, and smaller streams also occur on the valley floor as bands of native vegetation along drainages. The oak and pine woodlands, and chaparral communities are generally restricted to higher elevations in the westernmost portion of the County, west of Interstate 5. Interior coast range saltbush scrub (also mapped as alkali desert scrub on Figure 4.4-1) is found along the lower hills west of Interstate 5 mixed with annual grasslands. The following discussion of habitat types is based upon Hansen (1993) and Rincon Consultants (2007), and a review of the update of the Hansen report by Halstead (2008).

Grassland. Grassland habitat is predominately found in the southern and western portions of the County, particularly in the Inner Coast Ranges. Formerly more abundant in the County, grassland habitat has been altered or lost altogether due to the invasion of non-native species, agricultural and urban development, and grazing practices. Grassland areas within the County are generally dominated by a mix of non-native herbaceous species such as ripgut brome (*Bromus diandrus*), soft chess brome (*Bromus hordeaceus*), wild oats (*Avena* sp.), Italian ryegrass (*Lolium multiflorum*), filaree (*Erodium* sp.), bur-clover (*Medicago polymorpha*), and rat-tail

fescue (*Vulpia myuros*). Few native species remain, but when present generally include few-flowered fescue (*Vulpia microstachys*), fiddleneck (*Amsinkia* sp.), goldfields (*Lasthenia* sp.), tarweed (*Hemizonia* sp.), lupines (*Lupinus* sp.), gilia (*Gilia* sp.), and phacelia (*Phacelia* sp.). Rare clumps of native bunch grasses, such as needle grass (*Stipa* sp.), may still be found on the least disturbed parcels. Currently documented residual native grasslands in the County are limited to the Valley sacaton grassland, a dense, tussock grassland dominated by alkali sacaton (*Sporobolus airoides*) along Cross Creek on the eastern edge of the County.

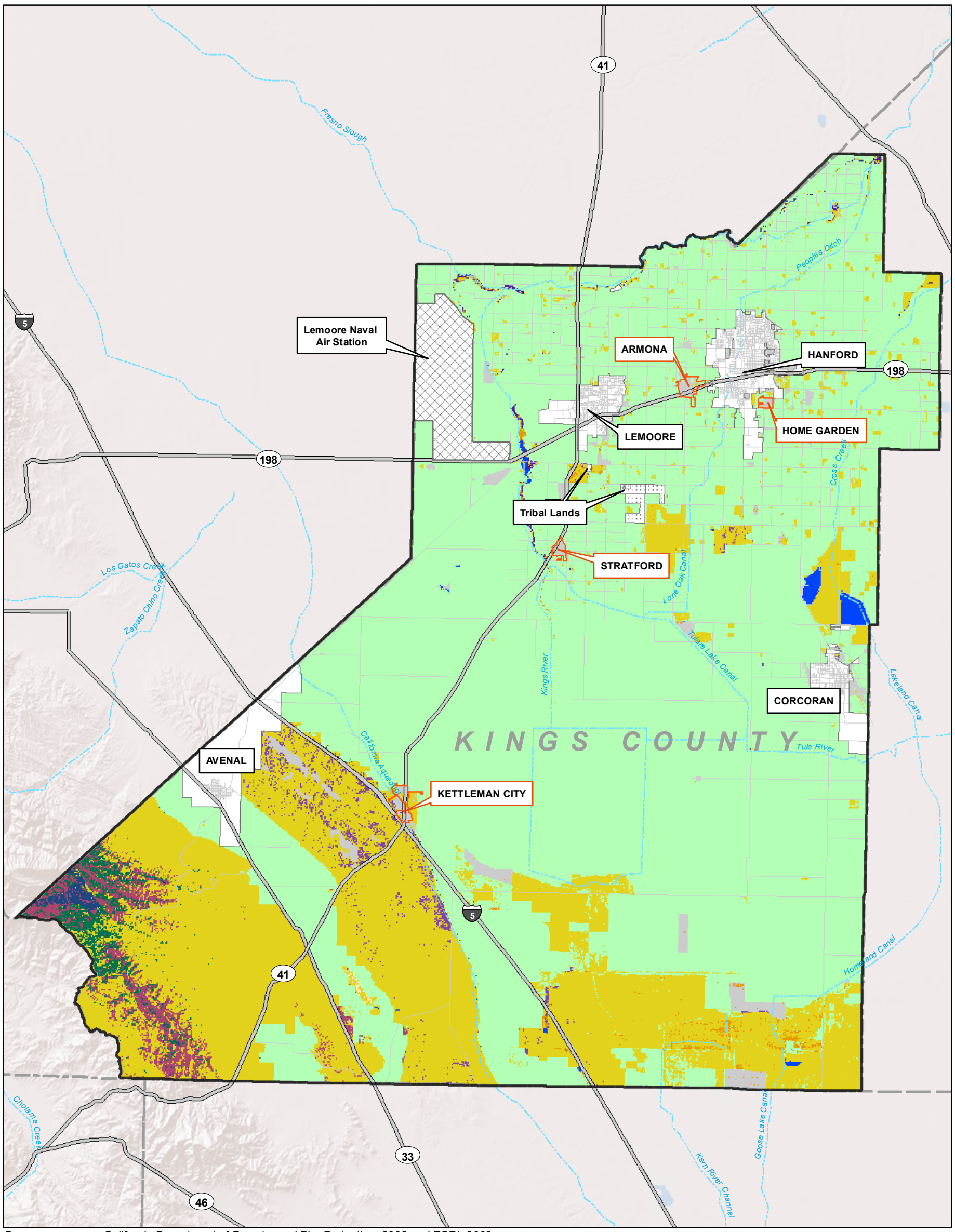
Grasslands provide habitat for grazers and seed eaters. Rodents present include the California ground squirrel, Botta's pocket gopher, deer mouse, pocket mice, and various kangaroo rats. Many reptiles occupy this habitat, especially where exposed rock or barren soil surfaces are present. Carnivores, including foxes and coyote, roam this area, while hawks commonly forage over this land and play an important role in controlling rodent populations. Seed-eating bird species (sparrows, larks, buntings, grosbeaks) are also common constituents of grasslands. Grasslands are also the primary foraging grounds for swallows, swifts, and bats, which nest elsewhere.

Blue Oak-Foothill Pine Woodland. This plant community is restricted to the Kreyenhagen Hills in the southwest portion of the County. Generally, this community consists of dense to open broad-leaved deciduous woodland intermixed with pine trees and evergreen shrubs and often intergrades with chaparral habitat (described below). This plant community is dominated by foothill pine (*Pinus sabiniana*) and blue oak (*Quercus douglasii*), with other important constituent tree and shrub species such as buckeye (*Aesculus californica*), manzanita (*Arctostaphylos* sp.), buckbrush (*Ceanothus cuneatus*), toyon (*Heteromeles arbutifolia*), interior live oak (*Quercus wislizenii*), California coffeeberry (*Rhamnus californica*), and poison oak (*Toxicodendron diversilobum*). A few stands containing coast live oak (*Q. agrifolia*) are also present.

Woodlands provide roosting and nesting sites for many birds, particularly raptors. Red-tailed and red-shouldered hawks are the most common raptors found in this community. Woodlands also provide habitat for several species of woodpeckers, warblers, and flycatchers. Amphibians present in scrublands are also found here, as are reptiles and mammals common to several plant associations.

Chaparral. Chaparral habitat is also located in the southwestern portion of the County. Generally, chaparral is a dense, often impenetrable community of hardy, woody evergreen shrubs with little or no understory. Dominant plants often include chamise (*Adenostoma fasciculatum*), manzanita, and ceanothus (*Ceanothus* sp.). Other species common to chaparral habitat include California sagebrush (*Artemisia californica*), mountain mahogany (*Cercocarpus betuloides*), buckwheat (*Eriogonum* sp.), toyon, twinberry (*Lonicera* sp.), holly-leaved cherry (*Prunus ilicifolia*), scrub oak (*Quercus dumosa*), gooseberry (*Ribes* sps) and sage (*Salvia* sp.)

Chaparral and similar scrub habitats host a variety of animals, most of which are permanent residents. Amphibians such as the California slender salamander, western toad, and the pacific treefrog are found in moist canyon areas. Reptiles such as the western fence lizard, side-blotched lizard, western whiptail, gopher snake, common kingsnake, and southern Pacific rattlesnake also occupy this habitat. Resident bird species include the various hummingbirds, California towhee, wrentit, Bewick's wren, mourning dove, California thrasher, greater



Base map source: California Department of Forestry and Fire Protection, 2002 and ESRI, 2009.

Vegetation Type

- Agriculture
- Alkali Desert Scrub
- Annual Grassland
- Barren
- Blue Oak Woodland
- Blue Oak-Foothill Pine
- Chaparral and Scrub
- Coastal Oak Woodland
- Freshwater Emergent Wetland
- Water
- Urban
- Valley Foothill Riparian

Additional Overlays

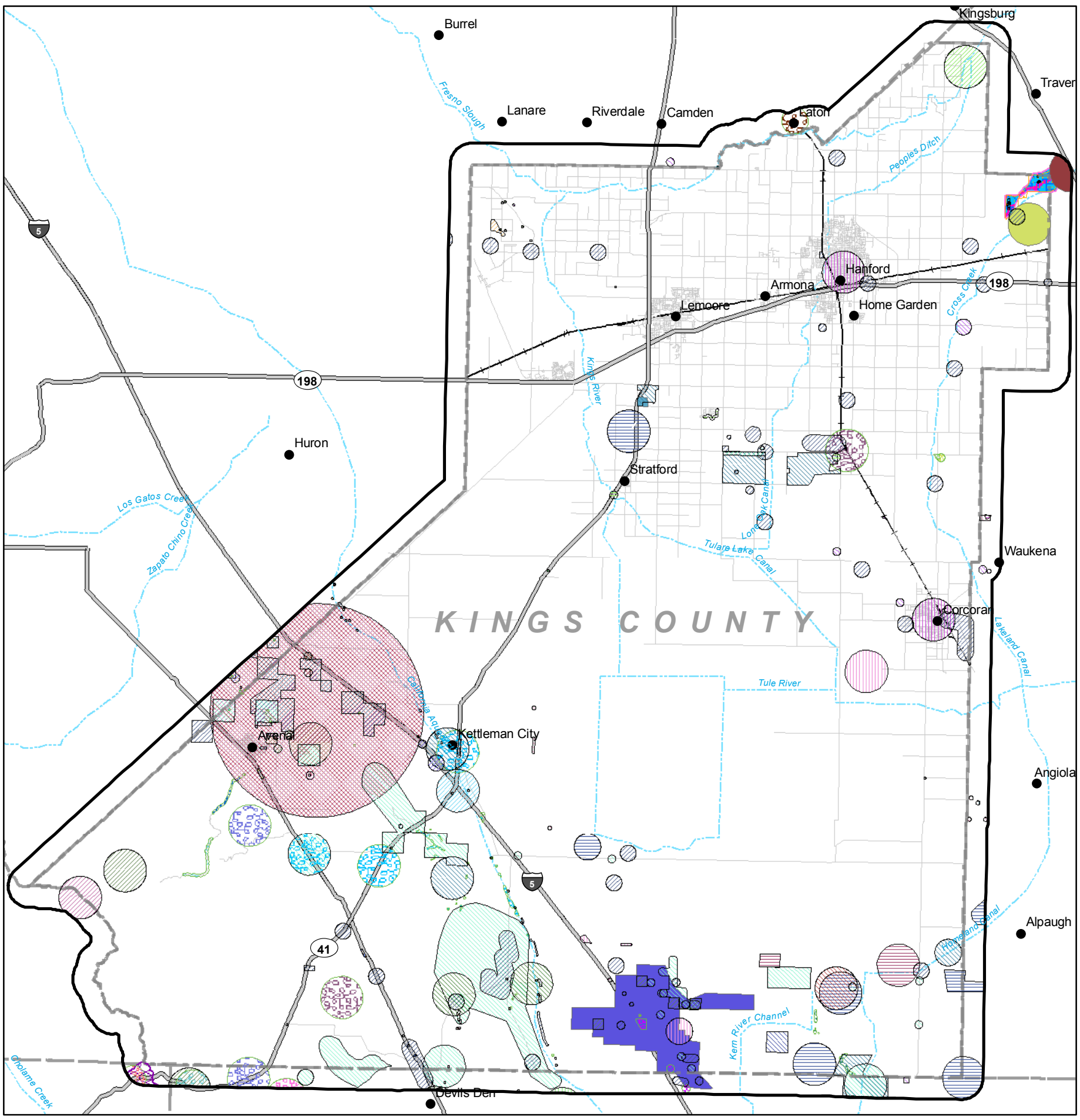
- Community Boundary
- City Boundary (Not part of General Plan)
- Lemoore Naval Air Station Boundary (Not part of General Plan)
- Tribal Lands (Not part of General Plan)

N

0 5 10 Miles

Vegetation Map

Figure 4.4-1



Sources: California Natural Diversity Database, March, 2009, U.S. Bureau of the Census TIGER 2000 data, and ESRI, 2002.

Legend

One-Mile Buffer of County Boundary

Animals

- American badger
- California tiger salamander
- Doyen's trigonoscuta dune weevil
- Fresno kangaroo rat
- Nelson's antelope squirrel
- San Joaquin dune beetle
- San Joaquin kit fox
- San Joaquin pocket mouse
- San Joaquin tiger beetle
- San Joaquin whipsnake
- Swainson's hawk
- Tipton kangaroo rat
- Tulare grasshopper mouse
- black-crowned night heron
- blunt-nosed leopard lizard
- burrowing owl
- fulvous whistling-duck
- giant kangaroo rat
- golden eagle
- hoary bat
- loggerhead shrike
- molestan blister beetle
- mountain plover
- short-nosed kangaroo rat
- snowy egret
- tricolored blackbird
- valley elderberry longhorn beetle
- vernal pool fairy shrimp
- vernal pool tadpole shrimp
- western pond turtle
- western snowy plover
- western spadefoot
- white-faced ibis

Plants

- California jewel-flower
- Earlimart orache
- Kings gold
- Lemmon's jewelflower
- Lost Hills crownscale
- San Joaquin woollythreads
- Temblor buckwheat
- brittlescale
- pale-yellow layia
- recurved larkspur
- round-leaved filaree
- showy golden madia
- slough thistle
- subtle orache

Natural Communities

- Northern Claypan Vernal Pool
- Valley Sacaton Grassland
- Valley Saltbush Scrub
- Valley Sink Scrub

Critical Habitat

- CA Red-legged Frog Proposed Critical Habitat
- California Tiger Salamander Final Critical Habitat
- Vernal Pool Fairy Shrimp Final Critical Habitat (2/10/2006)
- Vernal Pool Tadpole Shrimp Final Critical Habitat (2/10/2006)
- Vernal Pools Final Critical Habitat

N

0 5 10 Miles

Sensitive Elements Reported by the
California Natural Diversity Database

Figure 4.4-2

roadrunner, and California quail. Scrublands provide the primary year-round hunting ground for many raptors, such as the turkey vulture and red-tailed hawk, which forage in the adjacent grasslands during the spring. This plant community also provides the shelter necessary for nesting of many wildlife species. Typical mammals found in this habitat include ground squirrels, gophers, coyote, pocket mice, western harvest mouse, woodrat, cottontail rabbit, bobcat, opossum, raccoon, skunk, and deer.

Interior Coast Range Saltbush Scrub. Two types of saltbush scrub exist within Kings County, with this version occurring only within the inner south coast ranges in the southwestern portion of the County. It is generally found on rolling alluvial fans and uplands with sandy to loamy, non-alkaline soils, above the Tule fog belt, changing abruptly to Valley Saltbush Scrub (described below) where soils become alkaline. Interior coast range saltbush scrub is a moderate to dense scrub habitat dominated by saltbush (*Atriplex* sp.), mormon tea (*Ephedra californica*), bladder pod (*Isomeris arborea*), and red brome (*Bromus madritensis*). Other common species include locoweed (*Astragalus* sp.), buckwheat, California snakeweed (*Gutierrezia bracteata*), and goldenbush (*Haplopappus* sp.).

The saltbush scrublands can contain many of the animals associated with chaparral and other scrub habitats, but because of the lower diversity of plant life and hot summer conditions, fewer animals at lower population densities are typically associated with these habitats. Nonetheless, they provide habitat for a number of specialized animals, such as kangaroo rats, kit foxes, and various lizards.

Valley Saltbush Scrub. This plant community is considered a sensitive habitat by CDFG and has been documented in the southern portion of the County. This community is a lower elevation saltbush scrub, with far less cover (only 10-40 percent) than that described above and found within the Tule fog belt. It historically occurred in southern and southwestern San Joaquin Valley and the Carrizo Plain. It is now present in this region only in fragmented areas, and has been eliminated along much of its historic range primarily by conversion to agriculture, flood control programs, and groundwater pumping. It is generally found on dissected alluvial fans that are nearly flat and include sandy and loamy soils without surface alkalinity. Species characteristic of this community include various saltbushes, alkali heath (*Frankenia grandifolia*), and golden bush. The understory of this relatively open community typically consists of annual herbaceous species such as red brome, tarweed, goldfields, and filaree.

Valley Sink Scrub. Valley sink scrub is considered a sensitive habitat by CDFG and formerly occurred around the margins of the Tulare Lake and other lakes throughout the San Joaquin Valley, extending northward into the Sacramento Valley. Most of this scrub has been eliminated by conversion to agriculture, flood control programs, and groundwater pumping and it is now present only in fragmented areas within Kings County. This plant community is a relatively open to dense succulent shrubland that occurs on heavy, saline and/or alkaline clay soils, often with a white salty crust. Patches devoid of vegetation, called alkali balds, are where alkalinity is especially high. Dominant species include iodine bush (*Allenrolfea occidentalis*) and seepweed (*Suaeda* sp.). Other species observed in this plant community include red brome, recurved larkspur (*Delphinium recurvatum*), saltgrass (*Distchlis spicata*), goldfields, nitrophila (*Nitrophila occidentalis*) and alkali sacaton (*Sporobolus airoides*).

Tamarisk Scrub. Tamarisk (*Tamarix* sp.) is a non-native salt-tolerant shrub to small tree that displaces native vegetation. This community typically occurs in sandy or gravelly washes, lake beds, and riparian corridors. The presence of tamarisk usually indicates the presence of relatively higher soil moisture. Native species that may be present in this vegetation type include big saltbush (*Atriplex lentiformis*), Palmer's crinklemat (*Tiquilia palmeri*), saltgrass, and narrow-leaved willow (*Salix exigua*).

Riparian Forest, Woodland, and Scrub. Riparian forest, woodland, and scrub habitats are generally found along creeks, streams, and rivers where water is more readily available. Riparian communities in Kings County are diverse and range from recently disturbed scrub habitats dominated by willows (*Salix* sp.), mule fat (*Baccharis salicifolia*), and Tamarisk (*Tamarix* sp.) to forest habitat dominated by valley oaks (*Quercus lobata*), Fremont's cottonwood (*Populus freemontii*), and blue elderberry (*Sambucus nigra* ssp. *cerulea*) along the major rivers. Other common riparian plant species that may be found in these habitats include sycamore (*Plantanus racemosa*), Oregon ash (*Fraxinus latifolia*), virgin's bower (*Clematis lingusticifolia*), creeping wildrye (*Elymus triticoides*), California blackberry (*Rubus ursinus*), and stinging nettle (*Urtica dioica*).

Much of the riparian habitat that historically occurred in the County has been eliminated, largely due to alteration of the natural hydrology of the area. The remnant patches of riparian habitat are often degraded due to human activities and introduction of non-native, invasive species. Nonetheless, the remaining riparian habitats offer breeding and foraging habitat for a diverse array of animal species. In particular, many bird species preferentially nest in riparian habitats because of the availability of water, food in the form of insects, and cover.

Four sensitive riparian habitats, as described by the California Department of Fish and Game (CDFG), have been documented within Kings County: Great Valley Oak Riparian Forest, Great Valley Cottonwood Riparian Forest, Great Valley Willow Scrub, and Mule Fat Scrub. These communities are largely restricted to the Kings River and Cross Creek riparian corridors.

Valley Freshwater Marsh. Valley freshwater marsh occurs in freshwater sites where there are low current speeds and deep soils that are usually saturated. This habitat type historically encircled Tulare Lake and the lowland areas surrounding rivers. Presently, Valley Freshwater Marsh is found primarily in slow moving sloughs, river oxbows, man-made ponds and basins, and in irrigation district reservoirs and groundwater recharge areas. This habitat is dominated by perennial, emergent hydrophytic species such as tules (*Scirpus* sp.), flatsedge (*Cyperus* sp.), and cattails (*Typha* sp.). Other species characteristic to this plant community include sedge (*Carex* sp.), nutgrass (*Cyperus* sp.), rush (*Juncus* sp.), and spikerush (*Eleocharis* sp.). Many of the marsh habitat patches throughout the County are seasonally flooded and do not persist long enough to support viable populations of marsh-adapted animals. However, this habitat types can provide breeding and foraging habitat for a variety of waterbirds, including those migrating through the region.

Cismontane Alkali Marsh. Cismontane alkali marsh has standing water in saturated soils during most of the year. Water is salty and alkaline, and this habitat occurs in lake beds or other low-lying areas. Dominant species typically include yerba mansa (*Anemopsis californica*), sedges, saltgrass, wild rye (*Leymus triticoides*), rushes, and cattails. Saltbush shrubs often occur around the perimeter of the standing water in moist, highly alkaline soils (Holland, 1986). Its

distribution is highly limited within the County, occurring only in the vicinity of the former Tulare Lake.

Northern Claypan Vernal Pool. Northern claypan vernal pools are considered sensitive by CDFG. These ephemeral wetlands form when rainfall accumulates in a depression that is underlain by heavy clay soils. It is dominated by annual herbaceous species such as saltgrass, vernal pool popcorn flower (*Allocarya leptoclada*), alkali plant (*Cressa truxulensis*), downingia (*Downingia* sp.), goldfields, mousetail (*Myosorus minimus*), and clover fern (*Marsilea vestita*). Many plant and animals species associated with vernal pools are sensitive due to their dependence on this uncommon plant community. Documented locations of this habitat type are along Cross Creek at the eastern fringe of the County.

Agriculture. Agricultural habitat dominates the landscape of Kings County and accounts for more than 90 percent of the land use. Agricultural uses include row crops (e.g., cotton, tomatoes, corn), field crop production (e.g., alfalfa, grain), orchards (e.g., pistachios, almonds, walnuts, fruit), milk production at dairies, and grazing. Non-native annual plants typical of annual grasslands can account for much of the understory within orchards and on grazing lands.

Depending on the nature of the crop, agricultural areas provide wildlife habitat primarily for highly mobile species, such as birds and medium-sized mammals. Several species of waterfowl, sandhill cranes, and various blackbirds forage on waste grains after harvest. Insectivores, raptors, doves, and pheasants are common inhabitants in orchards. Ground squirrels and rabbits are common in some locales, and can become nuisance animals within agricultural areas.

Developed. Developed habitats throughout the County include urban, industrial, commercial, and residential developments and makes up approximately 0.8 percent of the total County land use, most within the cities located in the northern portion of the County. Developed areas primarily include four incorporated cities, several unincorporated communities, Naval Air Station Lemoore and Santa Rosa Rancheria. Developed areas provide habitat to certain mobile animals that have become adapted to urban conditions, including the exotic species house sparrow, collared dove, and European starling, and also native house finch, mockingbird, scrub jay, California towhee, and Anna's hummingbird.

Drainages. Several blue line drainage features occur within the County including the Kings River, Cross Creek, Avenal Creek, the northern extent of the Kern River Channel, numerous unnamed tributaries and ephemeral drainages. Additionally, there is an extensive network of irrigation canals including the California Aqueduct. Many of these drainages contain definable bed, bank, and channel features and all drainages, including man-made ones, may be within the jurisdictions of the U.S. Army Corps of Engineers (USACE), Central Valley Regional Water Quality Control Board (RWQCB), and the CDFG.

b. Special Status Biological Resources. The term special status biological resources includes those plants, animals, vegetation communities, jurisdictional drainages and other biological resources that are regulated under federal, state, and local laws. The primary information source on the distribution of special-status species in California is the California Natural Diversity Database (CNDDB) inventory, which is maintained by the Wildlife and

Habitat Data Analysis Branch of the CDFG. The CNDDB inventory provides the most comprehensive state-wide information on the location and distribution of special-status species and sensitive natural communities. Occurrence data is obtained from a variety of scientific, academic, and professional organizations, private consulting firms, and knowledgeable individuals. The occurrence of a species of concern in a particular location is an indication that the population may extend to other nearby areas if suitable habitat is present. However, the absence of an occurrence in a particular location does not necessarily mean that special-status species are absent from that area, only that no data has been entered into the CNDDB inventory. Detailed field surveys are generally required to provide a conclusive determination on presence or absence of sensitive resources from a particular location when suitable habitat is present.

Figure 4.4-2 illustrates the previously documented locations of special status species as reported by the CNDDB. Please note that the occurrence records of the CNDDB tend to focus on listed species or those with a high inventory priority. For other species that are known to occur within Kings County, the CNDDB may have no reported locations or only a limited number. For many of the plants and animals discussed below and in Tables 4.4-1 and 4.4-2, the CNDDB records do not accurately reflect their abundance and distribution within the County as compared to those that are listed under the state and/or federal Endangered Species Acts.

Listed Species. Federal, state, and local authorities under a variety of legislative acts share regulatory authority over biological resources. The CDFG has direct jurisdiction under law for biological resources through the state Fish and Game Code and under the California Endangered Species Act. The federal Endangered Species Act also provides direct regulatory authority over specially designated organisms and their habitats to the U.S. Fish and Wildlife Service (USFWS). These acts specifically regulate listed and candidate endangered and threatened species, which are defined as:

- ***Endangered Species:*** *any species that is in danger of extinction throughout all or a significant portion of its range.*
- ***Threatened Species:*** *any species that is likely to become an endangered species within the foreseeable future throughout all or a significant part of its range.*

Special status species are either listed as endangered or threatened under the federal or state Endangered Species Acts; as rare under the California Native Plant Protection Act; as a state "Species of Special Concern"; and/or as "Fully Protected" by the CDFG. CDFG and local governmental agencies may also recognize special listings developed by focal groups (i.e., Audubon Society Blue List; California Native Plant Society (CNPS) Rare and Endangered Plants; U.S. Forest Service regional lists).

Special Status Plants. Table 4.4-1 contains special status plant species that have been documented within or may potentially occur in Kings County, six of which have a state and/or federal listing status.

Table 4.4-1. Special Status Plant Species Documented or Potentially Occurring in Kings County

Species	Status Fed/State/ CNPS[1]	Habitat in Kings County
Astragalus hornii var. *hornii* Horn's milk-vetch	--/--/1B.1	Meadows, seeps, and playas/lake margins
Atriplex cordulata heartscale	--/--/1B.2	Saltbush scrub, meadows and seeps, valley and foothill grassland
Atriplex depressa brittlescale	--/--/1B.2	Saltbush scrub, meadows and seeps, playas, valley and foothill grassland, vernal pools
Atriplex erecticaulis Earlimart orache	--/--/1B.2	Valley and foothill grassland
Atriplex subtilis subtle orache	--/--/1B.2	Valley and foothill grassland
Atriplex vallicola Lost Hills crownscale	--/--/ 1B.2	Saltbush scrub, valley and foothill grassland, vernal pools
California macrophylla round-leaved filaree	--/--/1B.1	Woodland, and valley and foothill grassland
Caulanthus californicus California jewelflower	E/E/1B.1	Saltbush scrub, valley and foothill grassland
Caulanthus coulteri var. *lemmonii* Lemmon's jewelflower	--/--/1B.2	Valley and foothill grassland
Chamaesyce hooveri Hoover's spurge	T/--/1B.2	Vernal Pools
Chorizanthe biloba var. *immemora* Hernandez spineflower	--/--/1B.2	Chaparral and woodland
Chorizanthe rectispina straight-awned spineflower	--/--/1B.3	Chaparral scrubs and woodland
Cirsium crassicaule Slough thistle	--/--/ 1B.1	Saltbush scrub, marshes, riparian scrub
Deinandra halliana Hall's tarplant	--/--/1B.1	Saltbush scrub, woodland, and valley and foothill grassland
Delphinium recurvatum recurved larkspur	--/--/1B.2	Saltbush scrub, valley and foothill grassland, woodland
Eremalche kernensis Kern mallow	E/--/1B.1	Saltbush scrub, valley and foothill grassland, valley saltbush scrub
Eriogonum eastwoodianum Eastwood's buckwheat	--/--/1B.3	Woodland, and valley and foothill grassland
Eriogonum temblorense Temblor buckwheat	--/--/1B.2	Valley and foothill grassland
Layia heterotricha pale-yellow layia	--/--/1B.1	Woodland, and valley and foothill grassland
Layia munzii Munz's tidy-tips	--/--/1B.2	Saltbush scrub, and valley and foothill grasslands
Lepidium jaredii ssp. *album* Panoche pepper-grass	--/--/1B.2	Valley and foothill grassland
Lepidium jaredii ssp. *jaredii* Jared's pepper-grass	--/--/1B.2	Valley and foothill grassland
Madia radiata showy golden madia	--/--/1B.1	Woodland, and valley and foothill grassland
Monolopia congdonii (=Lembertia congdonii) San Joaquin woolly threads	E/--/ 1B.2	Saltbush scrub, valley and foothill grassland
Navarretia nigelliformis ssp. *radians* shining navarretia	--/--/1B.2	Woodland, valley and foothill grassland, and vernal pools
Orcuttia inaequalis San Joaquin Valley orcutt grass	T/E/1B.1	Vernal pools
Pseudobahia peirsonii San Joaquin adobe sunburst	T/E/1B.1	Woodland; valley and foothill grassland

Table 4.4-1. Special Status Plant Species Documented or Potentially Occurring in Kings County

Species	Status Fed/State/ CNPS[1]	Habitat in Kings County
Stylocline masonii Mason's neststraw	--/--/1B.1	Saltbush scrub
Symphyotrichum defoliatum San Bernardino aster	--/--/1B.2	Woodland, meadows and seeps, marshes and swamps, and valley and foothill grasslands
Tropidocarpum californicum Kings gold	--/--/1B.1	Valley saltbush scrub

E = Endangered; T = Threatened; CNPS 1B.1 = Rare, threatened or endangered in California and elsewhere, seriously endangered in California; CNPS 1B.2 = Rare, threatened or endangered in California and elsewhere, fairly threatened in California; CNPS 1B.3 = Rare, threatened or endangered in California and elsewhere, not very endangered in California. Source: CNDDB (RareFind3 2009); CDFG (2009a); California Native Plant Society (2009); United States Fish and Wildlife Service (2009); Rincon (2007); Hansen (1993).

Special Status Wildlife. Several invertebrate and vertebrate species of concern are known to occur or have the potential to occur within Kings County, based on the CNDDB and literature review. Table 4.4-2 lists these species and their habitat requirements. A small amount of critical habitat for vernal pool tadpole shrimp (*Lepidurus packardi*) and the California tiger salamander (*Ambystoma californiense*) has been designated along Cross Creek in the extreme northeast portion of the County.

Table 4.4-2. Special Status Animal Species Documented or Potentially Occurring in Kings County

Species	Status Fed/State	Suitable Habitat in Kings County
REPTILES		
Actinemys marmorata western pond turtle	--/CSC	Ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation
Anniella pulchra pulchra silvery legless lizard	-/CSC	Sandy or loose loamy soils with a high moisture content under sparse vegetation
Gambelia (=Crotaphytus) sila blunt-nosed leopard lizard	E/E,FP	Sparsely vegetated saltbush scrub and valley sink scrub; grasslands
Masticophis flagellum ruddocki San Joaquin whipsnake	-/CSC	Valley grassland and saltbush scrub
Phrynosoma coronatum coast horned lizard	-/CSC	Wide variety of habitats, most common in lowlands along sandy washes with scattered low brushes
Thamnophis gigas giant garter snake	T/T	Freshwater marsh, low-gradient streams, drainage canals, irrigation ditches
AMPHIBIANS		
Ambystoma californiense California tiger salamander	T/CE,CSC	Breeding habitat is vernal pools or seasonal ponds; refugia is grassland or other upland habitats; critical habitat designated in the northeast portion of the County along Cross Creek
Rana aurora draytonii California red-legged frog	T/CSC	Semi-permanent or permanent water at least 0.5 meter deep, bordered by emergent or riparian vegetation, and upland habitat for refugia and dispersal
Spea hammondii western spadefoot	--/CSC	Grasslands and valley foothill woodlands, with vernal pools
FISH		
Mylopharadon conocephalus hardhead	--/CSC	Large streams in mid- to low-elevation areas; also lakes or reservoirs

Table 4.4-2. Special Status Animal Species Documented or Potentially Occurring in Kings County

Species	Status Fed/State	Suitable Habitat in Kings County
BIRDS		
Agelaius tricolor tricolored blackbird	--/CSC (nesting colony)	Open water with tules or cattails
Ammodramus savannarum grasshopper sparrow	--/CSC (nesting)	Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes
Aquila chrysaetos golden eagle	--/FP (nesting and wintering)	Rolling foothills; nests in cliffs and large trees in open areas
Asio flammeus short-eared owl	--/CSC (nesting)	Does not breed in Kings County; winters in grasslands, prairies, dunes, meadows, and wetlands
Asio otus long-eared owl	--/CSC (nesting)	Riparian bottomlands with tall willows and cottonwoods; live oak paralleling stream courses
Athene cunicularia burrowing owl	--/CSC (burrow sites and some wintering sites)	Open grasslands and scrublands, with low-growing vegetation
Buteo swainsoni Swainson's hawk	--/T (nesting)	Breeds in riparian, oak savannah, and eucalyptus groves; forages in grasslands and agricultural fields
Charadrius alexandrinus nivosus western snowy plover	T/CSC (nesting)	Margins and levees of alkali ponds and lakes with sandy or gravelly, friable soils
Charadrius montanus mountain plover	--/CSC (wintering)	Grasslands, agricultural fields, valleys and plains
Circus cyaneus northern harrier	--/CSC (nesting)	Wetlands, agricultural areas, grasslands
Coccyzus americanus occidentalis western yellow-billed cuckoo	CE/E (nesting)	Nests and forages in dense lowland riparian vegetation during summer
Dendrocygna bicolor fulvous whistling-duck	--/CSC (nesting)	Tule- or cattail-dominated marshes
Dendroica petechia brewsteri yellow warbler	--/CSC (nesting)	Nests and forages in dense riparian woodland and scrub during summer
Elanus leucurus white-tailed kite	--/FP (nesting)	Grasslands, wetlands, agricultural fields
Empidonax trailli willow flycatcher	E/E	Wet meadow and riparian habitats (note: federal listing limited to *E. t. trailli*)
Grus Canadensis tabida greater sandhill crane	--/T,FP (nesting and wintering)	Wet meadow, shallow lacustrine, and fresh emergent wetland habitats
Icteria virens yellow-breasted chat	--/CSC (nesting)	Valley foothill riparian, grasslands, and moist croplands
Ixobrychus exilis least bittern	--/CSC (nesting)	Dense emergent wetlands near sources of freshwater
Lanius ludovicianus loggerhead shrike	--/CSC (nesting)	Open habitats with scattered shrubs, trees, posts, fences, and utility lines
Pelecanus erythrorhynchos American white pelican	--/CSC (nesting colony)	Large freshwater or saltwater lakes
Toxostoma lecontei Le Conte's thrasher	--/CSC	alkali desert scrub
Vireo bellii pusilus least Bell's vireo	E/E	Summer resident of cottonwood-willow forest, oak woodland, shrubby thickets, and dry washes with willow thickets at the edges
MAMMALS		
Ammospermophilus nelsoni Nelson's antelope squirrel	--/T	Scattered shrubs, forbs and grasses; gullies and washes
Antrozous pallidus pallid bat	--/CSC	Grasslands, shrublands, woodlands, and forests; most common in open, dry habitats with rocky areas for roosting

Table 4.4-2. Special Status Animal Species Documented or Potentially Occurring in Kings County

Species	Status Fed/State	Suitable Habitat in Kings County
Corynorhinus townsendii Townsend's big-eared bat	--/CSC	Found in all subalpine and alpine habitats including arid desert scrub, pine forest and wooded canyons
Dipodomys ingens giant kangaroo rat	E/E	Grasslands with sandy loam soils and level terrain; can occur in alkali saltbush scrubs
Dipodomys nitratoides brevinasus short-nosed kangaroo rat	--/CSC	Grasslands and alkali scrub with level terrain and friable soils
Dipodomys nitratoides exilis Fresno kangaroo rat	E/E	Grasslands, alkali sink scrub, and seasonally flooded wetlands
Dipodomys nitratoides nitratoides Tipton kangaroo rat	E/E	Valley sink scrub, valley saltbush scrub, grasslands, and fine-grained friable soils
Eumops perotis californicus western mastiff bat	--/CSC	Open, semi-arid to arid habitats, including conifer and deciduous woodlands, scrub, grasslands, and chaparral
Onychomys torridus tularensis Tulare grasshopper mouse	--/CSC	Arid valleys, deserts, and scrub
Sorex ornatus relictus Buena Vista Lake shrew	E/CSC	Marshes and riparian areas with moist soil, stumps, logs, and leaf litter
Taxidea taxus American badger	--/CSC	Grasslands, scrub, and woodlands with friable soils
Vulpes macrotis mutica San Joaquin kit fox	E/T	Grasslands or scrub with scattered vegetation; friable, sandy soils
INVERTEBRATES		
Branchinecta lynchi vernal pool fairy shrimp	T/SA	Vernal pools
Desmocerus californicus dimorphus valley elderberry longhorn beetle	T/SA	Life cycle tied to elderberry (*Sambucus* sp.) plants, which are often found in riparian areas
Lepidurus packardi vernal pool tadpole shrimp	E/SA	Vernal pools, ephemeral drainages, stock ponds, reservoirs, ditches, and vehicle ruts in grasslands; critical habitat designated in the northeastern portion of the County along Cross Creek
Lepidurus packardi valley elderberry longhorn beetle	E/SA	Elderberry in valley oak woodland or riparian habitats

E = Endangered; T = Threatened; CSC = California Species of Special Concern; CE = candidate for listing as Endangered; D = delisted; FP = Fully Protected. Source = CNDDB (RareFind3 2009); California Department of Fish and Game (2009B); United States Fish and Wildlife Service (2009); Rincon (2007); Hansen (1993).

c. Wildlife Corridors. Natural movement corridors and habitat linkages have been the focus of numerous studies intended to better understand relationships between animal populations, open space reserves, and natural movement patterns. Wildlife movement can be limited by roads, railroads, dams, canals, urban development, and agriculture. Fragmentation of large habitat areas into small, isolated segments has been shown to generally reduce biological diversity, eliminate disturbance-sensitive species, restrict genetic flow between populations of organisms, and may eventually lead to the loss of local floral or faunal assemblages. Wildlife corridors and habitat linkages are important landscape elements that reduce the potential loss in biological diversity.

Wildlife corridors are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Such linkages may serve a local purpose, such as between foraging and denning areas, or they may be regional in nature, allowing movement across the landscape. Some habitat linkages may serve as migration corridors, wherein animals periodically move away from an area and then subsequently return.

Corridors usually connect one large habitat area with another, and while there is no pre-defined size limit for such areas, they most often are on the scale of mountain ranges, valleys, or clearly delimited ecological situations (i.e. vernal pools). The *Missing Linkages: Restoring Connectivity to California Landscape* conference (Penrod et al. 2001) refers to such corridors as "landscape linkages." These are specifically defined in that report as:

> *"large, regional connections between habitat blocks ("core areas") meant to facilitate animal movement and other essential flows between different sections of a landscape (taken from Soulé and Terborgh 1999). These linkages are not necessarily constricted, but are essential to maintain connectivity function in the ecoregion."*

Key wildlife corridors in the 2035 General Plan area include the hills in the southwestern portion of the County, the Kings River, Cross Creek, and several canals throughout the County. Along the southern boundary of the County, intensively managed agricultural lands give way to grazed and/or otherwise undeveloped parcels, some of which contain remnants of native habitat. These parcels are relatively close (within 10 miles) to lands protected by the CDFG as ecological reserves as well as two USFWS National Wildlife Refuges and, this portion of the County may also serve as a wildlife movement corridor.

Several parcels in the east-central portion of the County, generally north of Corcoran, have not yet been developed and offer a potential movement corridor between undeveloped lands in the central portion of the County and undeveloped lands outside of the County to the east.

The Kettleman Hills and the Kreyenhagen Hills, each part of the Temblor Range, occur in the southwestern portion of the County. Little development has occurred in these hills due to steep slopes and lack of services available to residents. As a result, much of the area is open and wildlife move through this area relatively unimpeded.

The Kings River flows from east to west from the Sierra Nevada Mountains and occurs along much of the northern border of the County, eventually turning south. Cross Creek, which is an extension of the Kaweah River, flows east to west from the Sierra Nevada Mountains into the northeastern portion of the County, where it turns south where it is dispersed through numerous manmade water channels supplying irrigation water to valley farmland. In addition to these natural drainage features, several canals constructed throughout the County, such as the Blakely Canal, Lakeland Canal, Homeland Canal, and the California Aqueduct, also serve as movement corridors through dense agricultural lands. Many species within Kings County may be confined to these waterways.

d. Special Status Communities/Areas. Special status communities and areas are those that are considered sensitive by federal and state agencies due to their rarity or value in providing habitat for vegetation, fish, and wildlife. Identified special status communities/areas known to occur within the 2035 General Plan Area include:

- *Great Valley Cottonwood Riparian Forest*
- *Great Valley Mesquite Scrub*
- *Great Valley Valley Oak Riparian Forest*
- *Northern Claypan Vernal Pool*
- *Northern Hardpan Vernal Pool*
- *Valley Sacaton Grassland*

- *Valley Saltbush Scrub*
- *Valley Sink Scrub*

e. Regulatory Setting. The following is a summary of the regulatory context under which biological resources are managed at the federal, state, and local level. Agencies with responsibility for protection of biological resources within the General Plan area include:

- *U.S. Fish and Wildlife Service (USFWS; federally listed species and migratory birds)*
- *California Department Fish and Game* (*CDFG; state listed and fully-protected species, and other sensitive plants and wildlife*)
- *Central Valley Regional Water Quality Control Board (RWQCB; waters of the State)*
- *U. S. Army Corps of Engineers (USACE; wetlands and other waters of the United States)*
- *County of Kings (General Plan Goals, Policies, and Actions)*

A number of Federal and/or State statutes provide a regulatory structure that guides the protection of biological resources. The following discussion provides a summary of those laws that are most relevant to biological resources in Kings County.

U.S. Fish and Wildlife Service. The USFWS implements the Migratory Bird Treaty Act (16 USC Section 703-711) and the Bald and Golden Eagle Protection Act (16 United States Code (USC) Section 668). The USFWS and the National Oceanic and Atmospheric Administration (also called NOAA Fisheries) share responsibility for implementing the Federal Endangered Species Act (FESA; 16 USC § 153 *et seq)*. The USFWS generally implements the FESA for land and freshwater species, while NOAA Fisheries implements the FESA for marine and anadramous species. Projects that would result in take of any federally listed threatened or endangered species are required to obtain permits from the USFWS or NOAA Fisheries through either Section 7 (interagency consultation with a federal nexus) or Section 10 (Habitat Conservation Plan) of FESA, depending on the involvement by the federal government in permitting or funding the project. The permitting process is used to determine if a project would jeopardize the continued existence of a listed species and what mitigation measures would be required to avoid jeopardizing the species.

Take under federal definition means to harass, harm (which includes habitat modification), pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Proposed or candidate species do not have the full protection of FESA, however, the USFWS and NOAA Fisheries advise project applicants that they could be elevated to listed status at any time.

California Department of Fish and Game. The CDFG derives its authority from the Fish and Game Code of California and the California Endangered Species Act (CESA; Fish and Game Code Section 2050 *et seq,*), which prohibits take of listed threatened or endangered species. Take under CESA is restricted to the direct killing of a listed species and does not prohibit indirect harm by way of habitat modification.

California Fish and Game Code Sections 3503, 3503.5, and 3511 describe unlawful take, possession, or needless destruction of birds, nests, and eggs. Fully protected birds (Section 3511) may not be taken or possessed except under specific permit. Section 3503.5 of the Code

protects all birds-of-prey and their eggs and nests against take, possession, or destruction of nests or eggs.

Species of Special Concern (CSC) is a category used by CDFG for those species which are considered to be indicators of regional habitat changes or are considered to be potential future protected species. Species of Special Concern do not have any special legal status except that which may be afforded by the Fish and Game Code as noted above. The CSC category is intended by the CDFG for use as a management tool to include these species into special consideration when decisions are made concerning the development of natural lands.

CDFG also has authority to administer the Native Plant Protection Act (Fish and Game Code Section 1900 *et seq*). The Act requires CDFG to establish criteria for determining if a species, subspecies, or variety of native plant is endangered or rare. Under Section 1913(c) of the Act, the owner of land where a rare or endangered native plant is growing is required to notify the department at least 10 days in advance of changing the land use to allow for salvage of plant.

Perennial and intermittent streams also fall under the jurisdiction of CDFG. Sections 1600 et. seq. of the Fish and Game Code (Lake and Streambed Alteration Agreements) gives CDFG regulatory authority over work within the stream zone (which could extend to the 100-year flood plain) consisting of, but not limited to, the diversion or obstruction of the natural flow or changes in the channel, bed, or bank of any river, stream or lake.

Regional Water Quality Control Board. The protection of water quality in the watercourses in and around Kings County is under the jurisdiction of the Central Valley Regional Water Quality Control Board. The RWQCB is responsible for the coordination and control of water quality under the Porter-Cologne Water Quality Control Act (1969). The RWQCB further administers Section 401 of the Clean Water Act, requiring projects which may result in the discharge of dredged or fill material into waters of the U.S. to obtain water quality certification.

U.S. Army Corps of Engineers. Under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act, the USACE has authority to regulate activity that could discharge fill or dredge material or otherwise adversely modify wetlands or other waters of the United States. The USACE administers the federal policy embodied in Executive Order 11990, which, when implemented, is intended to result in no net loss of wetland values or acres. In achieving the goals of the Clean Water Act, the Corps seeks to avoid adverse impacts and to offset unavoidable adverse impacts on existing aquatic resources. Any fill or adverse modification of waters of the U.S. and/or associated wetlands would require a permit from the Corps prior to the start of work. Typically, permits issued by the Corps are a condition of a project as mitigation to offset unavoidable impacts on wetlands and other waters of the U.S. in a manner that achieves the goal of no net loss of wetland acres or values.

County of Kings. Both the existing and the proposed 2035 General Plan contain goals, objectives and policies intended to protect biological resources. In addition to the General Plan, the Armona, Kettleman City, and Stratford Community Plans also contain provisions for the protection of biological resources within their respective plan areas.

4.4.2 Impact Analysis

a. Methodology and Significance Thresholds. This impact analysis is based on available literature regarding the existing biological resources within the General Plan area and review of aerial photography and topographic maps. The following analysis determines the potential effects of 2035 General Plan buildout on biological resources.

Environmental impacts relative to biological resources may be assessed using impact significance criteria from federal, state, and local regulations. Project impacts to flora and fauna may be determined to be significant even if they do not directly affect rare, threatened, or endangered species.

CEQA, Chapter 1, Section 21001 (c) states that it is the policy of the State of California to "prevent the elimination of fish and wildlife species due to man's activities, ensure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities." Environmental impacts relative to biological resources may be assessed using impact significance criteria encompassing CEQA guidelines and federal, state and local plans, regulations, and ordinances. The *CEQA Guidelines* Appendix G provides the following general statements to determine that significant impacts to biological resources could occur if a project action would:

- *Have a substantial adverse effect (i.e. significantly reduce species population, reduce species habitat, restrict reproductive capacity), either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, regulations, or by CDFG or USFWS;*
- *Have a substantial adverse effect (i.e. direct/indirect reduction) on any riparian habitat or other sensitive natural community identified in local or regional plans, policies regulations, or by the CDFG or USFWS;*
- *Have a substantial adverse effect (i.e. direct/indirect reduction) on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to, marsh vernal pool, coastal, etc.) through direct removal, filling, or hydrological interruption, or other means;*
- *Interfere substantially (i.e. direct/indirect reduction) with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;*
- *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and*
- *Conflict with the provisions of an adopted Habitat Preservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.*

An HCP for the PG&E San Joaquin Valley operations covers all of Kings County; however, an update to the Kings County General Plan would not be expected to conflict with the HCP due to the long-range planning and mitigative nature of the General Plan. The checklist item related to this condition was therefore excluded from the above list.

b. Project and Cumulative Impacts. The following discussion provides a summary of biological resource impacts for the 2035 General Plan buildout. The discussion describes the

generalized effects of potential future development within the County and provides policy level mitigation appropriate for a General Plan analysis. Depending upon the nature and location of individual future development projects, information contained in this EIR regarding the potential occurrence and listing status of special status species of plants and wildlife and plant communities of special concern may need to be updated at the time individual future projects undergo environmental review. This would occur during the environmental review process for specific projects.

Impact BIO-1 Development facilitated by the draft 2035 General Plan generally avoids direct impacts to riparian, wetland, and open water habitats. Nonetheless, development based on land uses designated under the General Plan could directly and indirectly affect the quality of riparian and wetland habitat. Impacts to riparian, wetland, and open water habitats under the 2035 General Plan would be Class I, *significant and unavoidable*.

The 2035 General Plan focuses mainly on intensification and reuse of already developed areas within the County and would facilitate only limited development in undeveloped areas. Most of the increased land use density is associated with infill development that is generally not located near these resources and so would generally avoid direct impacts to riparian, wetland, and open water habitats. Nonetheless, the intensification of use of habitats along riparian corridors and waterways has the potential to be cumulatively significant and will require inspection on a project-by-project basis to ensure protection of these resources. Furthermore, development throughout the County, including potential establishment of new communities, may result in significant impacts to riparian, wetland, and open water habitats. Objectives and policies within the 2035 General Plan, as well as the 2035 Community Plans for Armona and Stratford address impacts to riparian, wetland, and open water habitats.

The Home Garden 2035 Community Plan area does not contain any riparian, wetland or open water habitats and, as such, there are no policies within this plan regarding protection of these resources. The 2035 Community Plan for Kettleman City also lacks policies directed at riparian, wetland and open water habitats. The California Aqueduct is the only watercourse that occurs within this Plan area and no other riparian, wetland or open waters habitats exist. The California Aqueduct lacks riparian habitat and would remain unaltered by future development within the Plan area. As such, no impacts to this watercourse are expected.

General Plan Policies which Reduce Impacts. The *2035 General Plan Land Use Element* includes the following policies and objectives, the implementation of which reduce impacts to riparian, wetland, and open water habitats.

LU OBJECTIVE A1.2: *Protect natural waterways to ensure continued water delivery and recharge to surrounding agricultural uses and related homesites, while maintaining the natural aesthetic appeal of the Kings River and Cross Creek waterway channels.*

LU Policy A1.2.1: *Water channels and riparian habitat along the Kings River and Cross Creek shall be designated "Natural Resource Conservation" with a minimum parcel size the same as the surrounding agricultural zone, i.e.*

AG-20, AG-40, or AX. This designation shall include the natural water channel and outer edge of the riparian vegetation, or to the exterior toe of the bank of the channel where absent of vegetation.

The *2035 General Plan Resource Conservation Element* includes the following policies and objectives, the implementation of which reduce impacts to riparian, wetland, and open water habitats.

RC OBJECTIVE A1.1: *Maintain and Protect Existing Water Supplies.*

RC Policy A2.1.1: *Recognize the Kings River Conservation District's responsibility to maintain the Kings River channels and levees for flood control purposes. On land within the floodway, allow farming and other uses that are consistent with the designated floodway regulations and any requirements of the Central Valley Flood Protection Board.*

RC Policy A2.1.2: *Apply the "Natural Resource Conservation" land use designation along the Kings River, Cross Creek, and in environmentally sensitive areas having existing natural watercourses, drainage basins, sloughs, or other natural water features. Permitted uses within designated floodway channels shall be limited to uses such as flood control channels, water pumping stations and reservoirs, irrigation ditches, water recharge basins, limited open public recreational uses such as passive riverside parks, related incidental structures, and agricultural crop production that does not include permanent structures. Any construction or development in this designation along the Kings River designated floodway channel shall be subject to the encroachment permit process required by the Central Valley Flood Protection Board.*

RC Policy A2.1.4: *Coordinate the review of all development proposals within or adjacent to designated floodways with relevant resource conservation district entities to ensure compliance with Central Valley Flood Protection Board requirements, and local Floodplain Administration requirements.*

RC OBJECTIVE D1.1: *Require that development in or adjacent to important natural plant and animal habitats minimize the disruption of such habitats.*

RC Policy D1.1.1: *Require development to locate on sites adjacent to previously developed areas.*

RC Policy D1.1.2: *Evaluate all discretionary land use applications in accordance with the screening procedures contained in the Biological Resources Survey located in Appendix 3. If the results of the project screening indicate the potential for important biological resources to exist on the site a biological evaluation (consistent with Appendix 3) shall be performed by a qualified biologist. If the evaluation indicates that the project could have a significant adverse impact, mitigation shall be required or the project will be redesigned to avoid such impacts. .Mitigation shall be provided consistent with the California Environmental Quality Act (CEQA), and applicable state and federal guidelines as appropriate.*

Mitigation may include habitat improvement or protection, acquisition of other habitat, or payment to an appropriate agency to purchase, improve, or protect such habitat.

RC Policy D2.1.1: *Follow state and federal guidelines for the protection of natural wetlands. Require developers to obtain authorization from the appropriate local, state, or federal agency prior to commencement of any wetland fill activities.*

RC Policy D2.1.2: *Use the California Environmental Quality Act (CEQA) process to assess wetland resources, and require mitigation measures for development which could adversely impact a designated wetland.*

RC Policy D2.1.3: *Exempt prior converted wetlands from consideration as wetlands under the County planning process, except as required by state and federal regulations.*

RC OBJECTIVE D3.1: *Ensure that, in development decisions affecting riparian environments, the conservation of fish and wildlife habitat and the protection of scenic qualities are balanced with other purposes representing basic health, safety, and economic needs.*

RC Policy D3.1.1: *Designate the Kings River as a resource conservation area, implemented by use of the Natural Resource Conservation zone district.*

RC Policy D3.1.2: *Encourage the Kings River Conservation District to avoid substantial alteration of the Kings River channel and its riparian vegetation, consistent with their flood control responsibilities.*

RC Policy D3.1.3: *Evaluate the potential impact on the riparian environment of proposed development adjacent to the Kings River, beyond the boundaries of the designated floodway. Conservation of fish and wildlife habitat and protection of scenic qualities should be the guiding principle.*

RC Policy D3.1.4: *Prohibit development within riparian environments over which the County has jurisdiction. However, allow or consider for approval if it is determined that significant disturbance of the riparian environment would not occur, the following passive uses or activities:*

- *Streamside maintenance for mandated flood control or water delivery purposes;*
- *Road and utility line crossings;*
- *Grazing and similar agricultural production activities not involving structures or cultivation;*
- *Vegetation removal for integrated pest management programs under guidelines*
- *Passive recreational uses such as riverside parks and bikeways*

RC Policy D3.1.5: *Refer all discretionary permit applications for projects along the Kings River and Cross Creek to the appropriate local, state, and federal agencies for review and approval.*

RC OBJECTIVE F1.1: *Protect freshwater recreational fishing along the Kings River and the California Aqueduct by balancing agricultural and development needs with the protection of these resources.*

RC Policy F1.1.1: *Encourage design of public and private projects which will minimize damage to the Kings River.*

RC Policy F1.1.2: *Support the Kings River Fisheries Management Program, jointly sponsored by the Kings River Conservation District, Kings River Water Association and the Department of Fish and Game, and similar efforts to enhance and monitor fish habitat.*

The *2035 Armona Community Plan* includes the following policies, the implementation of which reduce potential impacts to riparian, wetland, and open water habitats within the Armona plan area.

ACP Policy 3B.1.3: *Open space land along riparian corridors and canals shall be preserved and pathways should be integrated to enhance the overall connectivity of the Community.*

ACP Policy 8A.1.1: *New residential development within the community shall avoid or preserve surrounding local waterways, sensitive habitat, and open space areas.*

The *2035 Stratford Community Plan* includes the following policies which reduce potential impacts to riparian, wetland, and open water habitats within the Stratford plan area.

SCP Policy 8A.1.2: *New residential development within the community shall avoid or preserve surrounding local waterways, sensitive habitat, and open space areas.*

SCP Objective 8E.1: *Prevent the disturbance and or destruction of natural resources within the community from encroachment of new development or loss through disinterest and abandonment.*

SCP Policy 8E.1.1: *New Community Expansion Area Mixed Use development shall ensure the preservation and upkeep of the Stratford Canal waterway, riparian vegetation, and embankments.*

Mitigation Measures. Additional mitigation beyond adherence to applicable proposed General Plan policies is not required.

Significance after Mitigation. The proposed General Plan policies, would reduce potential impacts of General Plan buildout to riparian, wetland, and open water habitat. However, not all land uses and development are subject to discretionary review under the General Plan and

subsequent CEQA documentation that would enable impacts to be reduced at the project level. These include land uses and development that are permitted by right and are not subject to any permit review process. They also include projects that are subject only to ministerial review. Further, the direct biological impacts of a particular project may be overridden by the Board of Supervisors for reasons unrelated to biological effects. Therefore, impacts to riparian, wetland, and open water habitat are considered significant and unavoidable.

Impact BIO-2 Development facilitated by the draft 2035 General Plan would largely avoid impacts to wildlife movement corridors by emphasizing intensification/reuse of existing urbanized areas. While several proposed General Plan policies require preservation of natural habitats and waterways, no policies specify the preservation of wildlife movement corridors. Therefore, impacts to wildlife movement under the 2035 General Plan would be Class I, *significant and unavoidable*.

When a population of any particular species becomes isolated, it becomes susceptible to local extirpation due to a lack of genetic exchange and significant environmental events such as floods, drought, or habitat disturbance, ultimately contributing the overall decline of the species as a whole. Extensive agricultural and urban development within the Central Valley has resulted in fragmentation of natural habitats that support special status species. Maintaining connectivity between natural areas becomes essential to the survival of many of these species. Neither the 2035 General Plan nor the Community Plans specifically address wildlife movement corridors within Kings County. The majority of the County has been developed for agricultural, industrial, and urban uses, thereby limiting the degree of wildlife movement through the County. Nonetheless, landscape linkages important to the maintenance of both wildlife and floral elements do exist in the southwestern, southern, and northeastern portions of the County.

Several wildlife movement corridors have been identified within Kings County (USFWS, 1998; California Wilderness Coalition, 2001). These corridors were identified based upon current land uses (e.g., undeveloped parcels and canals) and habitat types present (e.g., grasslands, vernal pools, etc.), as well as proximity to state and federally protected natural lands. The rivers, creeks and waterways throughout the County provide for substantial connectivity amidst a highly fragmented and developed landscape. These include the Kings River, Cross Creek and the associated tributaries, as well as a vast network of canals including the Tule River Canal, Blakely Canal, Lakeland Canal, Homeland Canal and the California Aqueduct.

Wildlife movement corridors were also identified along the Kettleman and Kreyenhagan Hills in the southwestern portion of the County (USFWS, 1998; California Wilderness Coalition, 2001). These hills are part of the larger Temblor Range which lies along the western boundary of the San Joaquin Valley. Steep slopes and the lack of services have limited development of these hills, thus providing a relatively open corridor to facilitate movement of some species between the northern and southern extents of their populations. Maintaining this corridor is considered important to preventing the significant decline of species such as the San Joaquin kit fox (*Vulpes macrotis mutica*) and blunt-nosed leopard lizards (*Gambelia sila*).

The largely undeveloped parcels along the southern boundary of the County include natural habitats such as grasslands, Valley Saltbush Scrub, and Valley Sink Scrub, and the CNDDB contains several records of special status species in this area. This portion of the County includes identified wildlife movement corridors that connect several natural land areas within the Central Valley (USFWS, 1998; California Wilderness Coalition, 2001). These include the Kern National Wildlife Refuge and Semitropic Ridge Ecological Reserve located south of the County boundary, Pixley National Wildlife Refuge and Allensworth Ecological Reserve location east of the County Boundary, and Deer Creek, which originates in the Sierra Nevada Mountain Range. This movement corridor can assist in the east to west movement of species such as the San Joaquin kit fox, movement that is otherwise impeded by development elsewhere in the region.

While no General Plan or Community Plan policies specifically address wildlife movement, several policies protect vital movement corridors where sensitive habitats occur (e.g., Kings River and Cross Creek) and, thus, allow for continued wildlife movement.

General Plan Policies which Reduce Impacts. The *2035 General Plan Resource Conservation Element* includes the following policies and objectives, the implementation of which indirectly reduces impacts to wildlife movement corridors.

LU Policy A1.1.1: *Land within the Coast Ranges located west of State Route 33 and having a slope of 15 percent or greater, according to Natural Resource Conservation Service Soil Classification data, shall be designated "Natural Resource Conservation" with a minimum parcel size of 40 acres.*

LU Policy A1.1.2: *Encourage low intensive agricultural type uses such as grazing to remain the predominant use of land within the Coast Ranges.*

LU Policy A1.2.1: *Water channels and riparian habitat along the Kings River and Cross Creek shall be designated "Natural Resource Conservation" with a minimum parcel size the same as the surrounding agricultural zone, i.e. AG-20, AG-40, or AX. This designation shall include the natural water channel and outer edge of the riparian vegetation, or to the exterior toe of the bank of the channel where absent of vegetation.*

RC Policy D1.1.1: *Require development to locate on sites adjacent to previously developed areas.*

RC Policy D1.1.2: *Evaluate all discretionary land use applications in accordance with the screening procedures contained in the Biological Resources Survey located in Appendix 3. If the results of the project screening indicate the potential for important biological resources to exist on the site a biological evaluation (consistent with Appendix 3) shall be performed by a qualified biologist. If the evaluation indicates that the project could have a significant adverse impact, mitigation shall be required or the project will be redesigned to avoid such impacts. Mitigation shall be provided consistent with the California Environmental Quality Act (CEQA), and applicable state and federal guidelines as appropriate.*

Mitigation may include habitat improvement or protection, acquisition of other habitat, or payment to an appropriate agency to purchase, improve, or protect such habitat.

RC Policy D3.1.1: *Designate the Kings River as a resource conservation area, implemented by use of the Natural Resource Conservation zone district.*

RC Policy D3.1.2: *Encourage the Kings River Conservation District to avoid substantial alteration of the Kings River channel and its riparian vegetation, consistent with their flood control responsibilities.*

RC Policy D3.1.3: *Evaluate the potential impact on the riparian environment of proposed development adjacent to the Kings River, beyond the boundaries of the designated floodway. Conservation of fish and wildlife habitat and protection of scenic qualities should be the guiding principle.*

RC Policy D3.1.5: *Refer all discretionary permit applications for projects along the Kings River and Cross Creek to the appropriate local, state, and federal agencies for review and approval.*

RC Policy E1.1.1: *In the initial project review for development permits, complete the inquiry process outlined in Appendix 3 to determine whether the project is likely to have a significant adverse impact on any threatened or endangered species habitat locations and to assure appropriate consideration of habitat preservation by development. Maintain current copies of California Department of Fish and Game and United States Fish and Wildlife Service maps showing locations of known threatened and endangered species habitat. If shown to be necessary, require the developer to consult with the California Department of Fish and Game, the United States Fish and Wildlife Service, and the United States Army Corps of Engineers as to potential impacts, appropriate mitigation measures, and required permits.*

RC Policy E1.1.2: *Require as a primary objective in the review of development projects the preservation of healthy native oaks and other healthy native trees.*

RC Policy E1.1.3: *Maintain to the maximum extent practicable the natural plant communities utilized as habitat by threatened and endangered species (see Appendix C for a listing and map of these plant communities).*

Currently, the Kettleman Hills and the undeveloped parcels in the southern, central and east-central portions of the County are zoned for agricultural development. Under this designation, no policies can protect natural resources in these areas from development that does not require a discretionary permit. As such, future development of these parcels could result in significant and unavoidable impacts to wildlife movement through the region.

The Tulare Basin Wildlife Partners (TBWP) is a non-profit conservation organization established with the intent to protect, enhance, and restore wildlife and their habitats in the Tulare Lake Basin. During the past few years, the TBWP prepared a set of comprehensive conservation

plans for three regions in the Tulare Basin region including the Sand Ridge – Tulare Lake, Goose Lake, and Buena Vista Lake – Kern Lake areas. A fourth plan was prepared which evaluated the riparian and wildlife corridors flowing into the Tulare Basin.

Mitigation Measures**.** The following mitigation measures are recommended to reduce impacts to wildlife movement in Kings County.

BIO-2(a) **Proposed Policy.** The following policy shall be included in the *2035 Kings County General Plan:*

RC Policy D3.1.6: *Evaluate Fish and Game approved conservation plans and wildlife corridor studies prepared by government or private non-profit biological resource entities that analyze Kings County's wildlife and riparian habitat, and where feasible, accommodate implementation of wildlife corridor plans.*

BIO-2(b) **Proposed Implementation Program.** The following implementation program shall be included in the *2035 Kings County General Plan.*

G. Resource Conservation Program 7. *Establish a Wildlife Movement Corridor Overlay over all lands designated as "Natural Resource Conservation," or where feasible, on land identified as a wildlife corridor by a Fish and Game approved regional wildlife corridor plan.*

Significance after Mitigation. Implementation of mitigation measures BIO-2(a) and BIO-2(b), in addition to the proposed General Plan policies would reduce impacts of General Plan buildout to wildlife movement corridors. However, the cumulative loss and degradation of habitat, fragmentation, and obstruction of movement opportunities would remain a significant unavoidable impact.

Impact BIO-3 Development facilitated by the draft 2035 General Plan would largely avoid impacts to sensitive habitats by emphasizing intensification/reuse of already urbanized areas. However, development throughout the County outside of urbanized areas may result in impacts to sensitive habitats, as may cumulative population growth. These impacts under the 2035 General Plan would be Class I, *significant but mitigable*.

The 2035 General Plan focuses predominantly on intensification of existing developed areas and limits expansion into agricultural and/or relatively undisturbed areas. However, future development within the County outside of existing developed areas, including potential establishment of new communities, may result in significant impacts to sensitive habitats. Eight sensitive habitats have been documented with Kings County, including Great Valley Cottonwood Riparian Forest, Great Valley Mesquite Scrub, Great Valley Valley Oak Riparian Forest, Northern Claypan Vernal Pool, Northern Hardpan Vernal Pool, Valley Sacaton Grassland, Valley Saltbush Scrub, and Valley Sink Scrub. Each of these plant communities is highly restricted in its distribution within the County due to agricultural and urban development. Additionally, a small amount of critical habitat for the vernal pool tadpole shrimp and California tiger salamander is present in the extreme northeast portion of the

County along Cross Creek. Future development within the County may result in impacts to these habitats, as well as to other habitat types that support special status species.

Objectives and policies within the 2035 General Plan, as well as the 2035 Community Plans for Armona and Stratford address impacts to sensitive habitats, and reduce potential impacts. The *Home Garden 2035 Community Plan* area is essentially built out with only isolated vacant parcels or farmland remaining for potential development. Therefore, the *Home Garden 2035 Community Plan* does not contain policies regarding protection of sensitive habitat resources. This Community Plan area does not contain sensitive habitats and, as such, no impacts are expected.

The *Kettleman City 2035 Community Plan* also lacks policies directed at sensitive habitats. The majority of the plan area has been developed for residential and commercial uses. Large areas upon which heavy industrial uses have been established (primarily oil excavation) are highly disturbed and likely do not contain sensitive habitats. As such no impacts to sensitive habitats are expected to occur as a result of development of this Community Plan area.

General Plan Policies which Reduce Impacts. The 2035 General Plan Land Use Element includes the following policies and objectives, the implementation of which reduce impacts to sensitive habitats.

The 2035 General Plan Resource Conservation Element includes the following policies and objectives which reduce impacts to sensitive habitats.

RC Policy D1.1.2: *Evaluate all discretionary land use applications in accordance with the screening procedures contained in the Biological Resources Survey located in Appendix 3. If the results of the project screening indicate the potential for important biological resources to exist on the site a biological evaluation (consistent with Appendix C) shall be performed by a qualified biologist. If the evaluation indicates that the project could have a significant adverse impact, mitigation shall be required or the project will be redesigned to avoid such impacts. .Mitigation shall be provided consistent with the California Environmental Quality Act (CEQA), and applicable state and federal guidelines as appropriate. Mitigation may include habitat improvement or protection, acquisition of other habitat, or payment to an appropriate agency to purchase, improve, or protect such habitat.*

RC Policy D2.1.1: *Follow state and federal guidelines for the protection of natural wetlands. Require developers to obtain authorization from the appropriate local, state, or federal agency prior to commencement of any wetland fill activities.*

RC Policy D2.1.2: *Use the California Environmental Quality Act (CEQA) process to assess wetland resources, and require mitigation measures for development which could adversely impact a designated wetland.*

RC Policy D3.1.1: *Designate the Kings River as a resource conservation area, implemented by use of the Natural Resource Conservation zone district.*

RC Policy D3.1.2: *Encourage the Kings River Conservation District to avoid substantial alteration of the Kings River channel and its riparian vegetation, consistent with their flood control responsibilities.*

RC Policy D3.1.3: *Evaluate the potential impact on the riparian environment of proposed development adjacent to the Kings River, beyond the boundaries of the designated floodway. Conservation of fish and wildlife habitat and protection of scenic qualities should be the guiding principle.*

RC Policy D3.1.4: *Prohibit development within riparian environments over which the County has jurisdiction. However, allow or consider for approval if it is determined that significant disturbance of the riparian environment would not occur, the following passive uses or activities:*

- *Streamside maintenance for mandated flood control or water delivery purposes;*
- *Road and utility line crossings;*
- *Grazing and similar agricultural production activities not involving structures or cultivation;*
- *Vegetation removal for integrated pest management programs under guidelines*
- *Passive recreational uses such as riverside parks and bikeways*

RC Policy D3.1.5: *Refer all discretionary permit applications for projects along the Kings River and Cross Creek to the appropriate local, state, and federal agencies for review and approval.*

RC Policy E1.1.1: *Complete the inquiry process outlined in Appendix B in the initial project review for development permits to determine whether the project is likely to have a significant adverse impact on any threatened or endangered species habitat locations, and to assure appropriate consideration of habitat preservation by development. Maintain current copies of California Department of Fish and Game and United States Fish and Wildlife Service maps showing locations of known threatened and endangered species habitat. If shown to be necessary, require the developer to consult with the California Department of Fish and Game, the United States Fish and Wildlife Service, and the United States Army Corps of Engineers as to potential impacts, appropriate mitigation measures, and required permits.*

RC Policy E1.1.2: *Require as a primary objective in the review of development projects the preservation of healthy native oaks and other healthy native trees.*

RC Policy E1.1.3: *Maintain to the maximum extent practicable the natural plant communities utilized as habitat by threatened and endangered species (see Appendix C for a listing and map of these plant communities).*

RC Policy F1.1.1: *Encourage design of public and private projects which will minimize damage to the Kings River.*

RC Policy F1.1.2: *Support the Kings River Fisheries Management Program, jointly sponsored by the Kings River Conservation District, Kings River Water Association and the Department of Fish and Game, and similar efforts to enhance and monitor fish habitat.*

RC Policy H1.2.1: *Discourage the location of mining operations near residential areas and other sensitive land uses, unless all impacts to such uses can be mitigated.*

RC Policy H1.2.2: *Minimize the adverse effects on environmental resources such as water quality and quantity, air quality, drainage and flood control, geophysical characteristics, biological resources, and aesthetic factors.*

The 2035 Armona Community Plan includes the following policies and objectives, the implementation of which reduce impacts to sensitive habitats within Armona.

ACP Policy 8A.1.1: *New residential development within the community shall avoid or preserve surrounding local waterways, sensitive habitat, and open space areas.*

ACP Policy 8E.1.2: *Slough remnants within the Armona Planning Area shall be preserved and integrated into the natural open space features of proposed development.*

The 2035 Stratford Community Plan includes the following policies and objectives, the implementation of which reduce impacts to sensitive habitats within Stratford.

SCP Policy 8A.1.2: *New residential development within the community shall avoid or preserve surrounding local waterways, sensitive habitat, and open space areas.*

SCP Policy 8E.1.1: *New Community Expansion Area Mixed Use development shall ensure the preservation and upkeep of the Stratford Canal waterway, riparian vegetation, and embankments.*

The General Plan and Community Plan policies listed above generally protect sensitive habitats through the discretionary permit approval process. However, several undeveloped parcels within the County are zoned for agriculture and the General Plan does not contain policies to protect sensitive resources on these parcels. The CNDDB contains records of special status species and habitats on many of these parcels. By definition, any habitat type that supports a special status species is considered sensitive. Development of these parcels under the current agricultural zoning designations would result in significant and unavoidable impacts to sensitive habitats.

Mitigation Measures. Mitigation measures BIO-2(a) and 2(b), are also applicable to this impact. No additional mitigation measures are available or recommended.

Significance after Mitigation. Implementation of mitigation measures BIO-2(a) and BIO-2(b), in addition to the proposed General Plan policies would reduce potential impacts of General Plan buildout to sensitive habitats to a less than significant level.

Impact BIO-4 Development facilitated by the draft 2035 General Plan would largely avoid impacts to special status plant and animal species by emphasizing intensification/reuse of already urbanized areas rather than developing on areas with native habitats. However, development throughout the County outside of these urbanized areas may result in impacts to special status plants and animals. These impacts under the 2035 General Plan would be Class I, *significant and unavoidable*.

The 2035 General Plan would primarily facilitate intensification of existing developed areas rather than development within undisturbed areas that may potentially support special status plant or animal species. Nevertheless, some areas that that may contain special status plant and animal species could potentially experience development, including natural lands currently zoned for agricultural land uses. Future land use conflicts with special status species in the County are likely to continue in the following areas for the near future:

- The fringes of agriculture lands adjacent to native lands within the valley floor.
- Within and adjacent to oilfields on the westside.
- Undeveloped native lands west of the California Aqueduct and along the edge of the Tulare Lake Basin (in the vicinity of Sand Ridge and Dudley Ridge).
- Urban, residential, and industrial expansion in growth areas on the outskirts of Avenal and Kettleman City.

When present, special status species are most likely to be associated with sensitive habitats throughout the County, such as riparian areas, wetlands, the Kettleman and Kreyenhagan Hills, and other sensitive habitats discussed above. In addition, some special status species have adapted to disturbed areas. San Joaquin kit foxes have been documented living in urbanized areas (United States Fish and Wildlife Service 1998) and burrowing owls are known to utilize irrigation canals in agricultural areas (Center for Biological Diversity 2003). Furthermore, several special status raptor species, such as white-tailed kites and Swainson's hawks, are known to nest in trees adjacent to agricultural habitats that provide foraging opportunities.

General Plan Policies which Reduce Impacts. The *2035 General Plan Resource Conservation Element* includes the following policies and objectives, the implementation of which reduce impacts to special status plant and animal species.

RC Policy D1.1.1: *Evaluate all discretionary land use applications in accordance with the screening procedures contained in the Biological Resources Survey located in Appendix C. If the results of the project screening indicates the potential for important biological resources to exist on the site a biological evaluation (consistent with Appendix C) shall be performed by a qualified biologist. If the evaluation indicates that the project could have a significant adverse impact, mitigation shall be required or the project will be redesigned to avoid such impacts. Mitigation shall be provided consistent with the California Environmental Quality Act (CEQA), and applicable state and federal guidelines as appropriate. Mitigation may include habitat improvement or protection, acquisition*

of other habitat, or payment to an appropriate agency to purchase, improve, or protect such habitat.

RC Policy E1.1.1: *Complete the inquiry process outlined in Appendix C in the initial project review for development permits to determine whether the project is likely to have a significant adverse impact on any threatened or endangered species habitat locations, and to assure appropriate consideration of habitat preservation by development. Maintain current copies of California Department of Fish and Game and United States Fish and Wildlife Service maps showing locations of known threatened and endangered species habitat. If shown to be necessary, require the developer to consult with the California Department of Fish and Game, the United States Fish and Wildlife Service, and the United States Army Corps of Engineers as to potential impacts, appropriate mitigation measures, and required permits.*

RC Policy E1.1.2: *Require as a primary objective in the review of development projects the preservation of healthy native oaks and other healthy native trees.*

RC Policy E1.1.3: *Maintain to the maximum extent practicable the natural plant communities utilized as habitat by threatened and endangered species (see Appendix C for a listing and map of these plant communities).*

The *2035 Armona Community Plan* includes the following policies and objectives, the implementation of which reduces impacts to special status plant and animal species within Armona.

ACP Policy 8E.1.1: *Complete the inquiry process outlined in Appendix C in the initial project review for development permits to determine whether the project is likely to have a significant adverse impact on any threatened or endangered species habitat locations, and to assure appropriate consideration of habitat preservation by development. Maintain current copies of California Department of Fish and Game and United States Fish and Wildlife Service maps showing locations of known threatened and endangered species habitat. If shown to be necessary, require the developer to consult with the California Department of Fish and Game, the United States Fish and Wildlife Service, and the United States Army Corps of Engineers as to potential impacts, appropriate mitigation measures, and required permits.*

ACP Policy 8E.1.1: *Maintain to the maximum extent practical the natural plant communities utilized as habitat by threatened and endangered species (see Appendix C for a listing and map of these plant communities).*

The *2035 Kettleman City Community Plan* includes the following policies and objectives, the implementation of which reduce impacts to special status plant and animal species within Kettleman City.

KCCP Policy 8E.1.1: *New development within the Kettleman City Community Planning Area shall be required to provide a pre-construction biological survey to determine the presence of any rare or endangered species within the project area.*

KCCP Policy 8E.1.2: *If any findings are made, the local lead agency shall be immediately notified and any other responsible state or federal agency.*

The *2035 Stratford Community Plan* includes the following policies and objectives, the implementation of which reduce impacts to special status plant and animal species within Stratford.

SCP Policy 8E.1.2: *If Federal or State listed rare or endangered species are identified and observed, the local lead agency and any other responsible state or federal agency shall be notified immediately.*

Mitigation Measures. The following mitigation measures are recommended to further reduce potential impacts.

BIO-4(a) **Policy Revisions.** The following policies shall be revised to protect special status plant and animal species:

ACP Policy 8E.1.3: *New development within the Armona Community Planning Area shall be required to provide a pre-construction biological survey to determine the presence of any rare or endangered species within the project area. If Federal or State listed rare or endangered species are identified and observed, the local lead agency and any other responsible state or federal agency shall be notified immediately.*

SCP Policy 8E.1.2: *New development within the Armona Community Planning Area shall be required to provide a pre-construction biological survey to determine the presence of any rare or endangered species within the project area. If Federal or State listed rare or endangered species are identified and observed, the local lead agency and any other responsible state or federal agency shall be notified immediately.*

Significance after Mitigation. Implementation of mitigation measures BIO-2(a), BIO-2(b), and BIO-4(a), in addition to the proposed General Plan policies would reduce potential impacts of General Plan buildout to special status plant and animal species. Adoption of the relevant policies in the *Resource Conservation Element* and oversight by regulatory agencies entrusted with enforcement of state and federal regulations addressing the protection and management of special-status species, would serve to reduce potential adverse impacts on special-status species associated with the Draft 2035 General Plan. To the extent that the location of special-status species occurrences are known or discovered through the permit review process, the interaction of these policies and regulations may reduce local effects to a less than significant level. However, because not all occurrences of special-status species are known and some land uses are not regulated, the impact on special status species would be a significant unavoidable impact.

4.5 CULTURAL RESOURCES

This section analyzes the potential impacts of development under the 2035 General Plan on cultural resources. Impacts to both pre-historic archaeological resources and historic resources are addressed. Information reviewed for the summary includes the Kings County General Plan, published reports on archaeological research in the Tulare Lake Basin, data from the California Historical Resources Information System (CHRIS), Southern San Joaquin Valley Information Center in Bakersfield, and the General Plan Dairy Element EIR. The records at CHRIS include known and recorded archaeological and historic sites, inventory, and excavation reports filed with the center, and properties listed on the National Register of Historic Places, the California Historical Landmarks, the California Inventory of Historic Resources, and the California Points of Historic Interest. The records at the Native American Heritage Commission include a database of sacred lands.

4.5.1 Setting

Cultural resources include prehistoric resources, historic resources, and Native American resources. Prehistoric resources represent the remains of human occupation prior to European settlement. Historic resources represent remains after European settlement and may be part of a "built environment," including man-made structures used for habitation, work, recreation, education and religious worship, and may also be represented by houses, factories, office buildings, schools, churches, museums, hospitals, bridges, and other structural remains. Native American resources include ethnographic elements pertaining to Native American issues and values.

a. Prehistoric and Historical Background. Kings County is located in the southern San Joaquin Valley in an area known to have been the home of the Tachi tribe of Yokut Native Americans. The Tachi Yokuts lived north of Tulare Lake and westward to the hills near Coalinga. Archaeological evidence indicates that the historic Native American people were "the last in a series of hunting or hunting-gathering populations" to live in the Tulare Lake region (Wallace, 1991). Artifacts collected from archaeological sites in the vicinity of the lake, primarily along a former (lower) lake shoreline, include over 325 Clovis-type lithic projectile points (Stepp, 1997). Clovis points are typically considered index fossils of an early North American stone tool technology developed 11,000 to 13,000 years ago. Therefore, human occupation of the Tulare Lake margin probably began more than 10,000 years ago.

Presence of Yokuts in the Southern Valley date back to at least 8,000 years. During the summers, this area had a lake-slough-marsh environment which provided the Yokuts with an enormous supply of animal and plant foods and a variety of plentiful wildlife. The rivers, sloughs, and the lakes are also used for transportation. They also traveled by foot, but preferred the water. They made their own canoe-shaped rafts out of dried tules put together.

The Yokuts first came into contact with Europeans when Spanish explorers visited the area in the late 1700s. These early visits were followed by expeditions to recover individuals who had escaped from the missions located further west. Compared to the California coastal regions, which supported the earliest Spanish settlement, the San Joaquin Valley remained largely unsettled during the Spanish and Mexican Periods. Mexican land grants common to many coastal counties were sparsely scattered along the San Joaquin Valley. Much of the region

consisted of public lands. Following California's Gold Rush, settlement of the San Joaquin Valley gradually increased as former gold seekers realized the potential for crop production and cattle raising in the region. Many small towns were founded in the San Joaquin Valley because of railroads developed throughout the area, providing access, goods, and employment; these small towns further influenced settlement patterns in the area. The region has historically been used for agricultural and ranching practices, and these practices continue into the present.

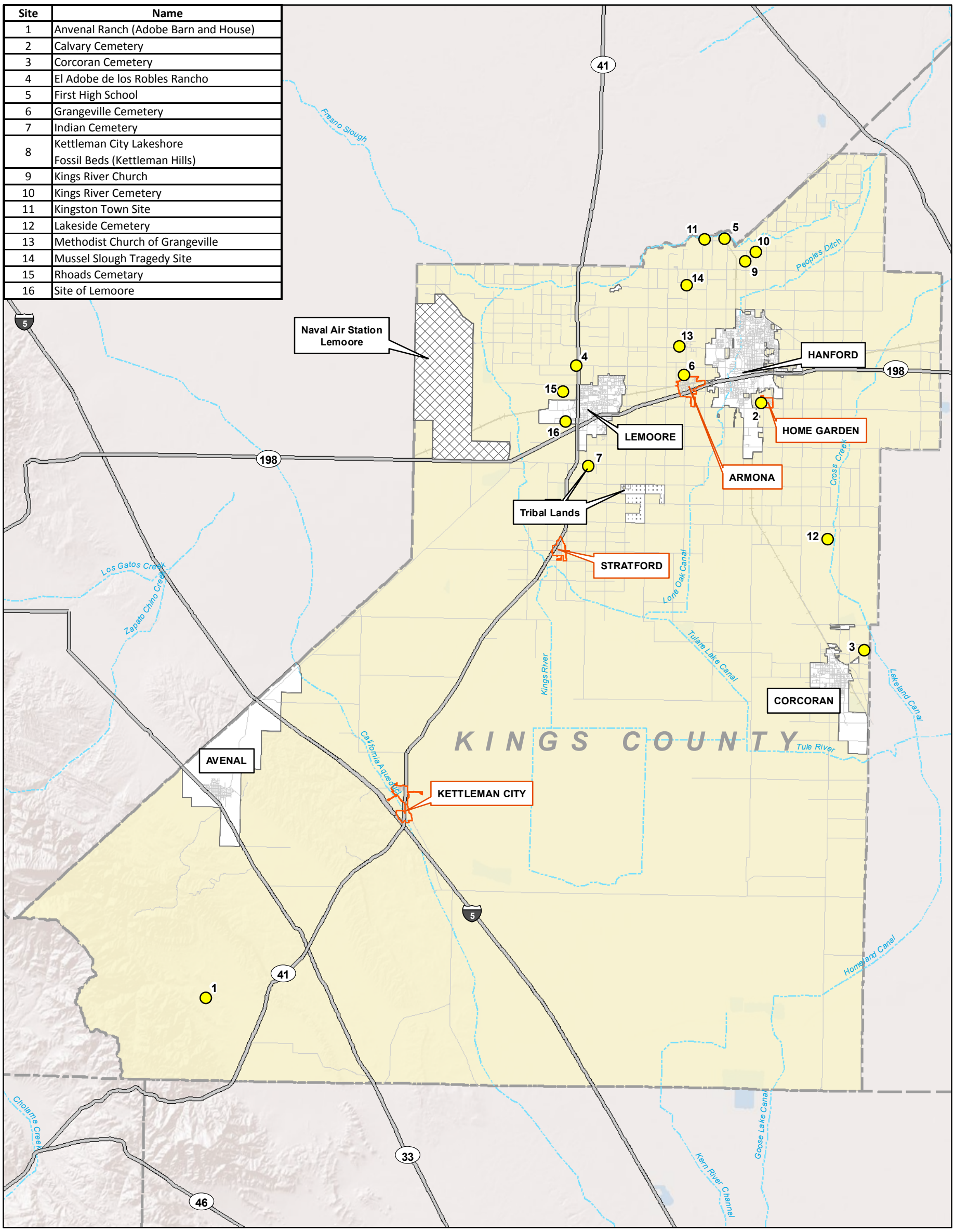
Significant Tulare Lake archaeological sites include the Witt site in southern Kings County (near Dudley Ridge) and the Creighton Ranch site in western Tulare County. Fossilized human bone from the Witt site has been radiometrically dated as being 11,380 to 15,800 years old. The bones of Pleistocene mammals from that site are similarly dated. Several sites have also been identified south and west of Hanford (including three mound sites that were leveled in the 1940s). Other sites have been recorded in the area of Stratford, the area south and west of Lemoore, and in the area surrounding Alpaugh in southwest Tulare County and southeastern Kings County (Wallace, 1993). The CHRIS records indicate that 90 recorded cultural resource sites have been identified in Kings County. Most of the archaeological resources are located in the upper three feet of the subsurface. Throughout most of the valley floor portion of the County, intensive agricultural production has disturbed surface soils to below this depth. Therefore, it is likely that agricultural activities have disturbed most of the archaeological resources. In addition, ardent collection of artifacts by local residents and other collectors has complicated systematic, scientific evaluation of the Tulare Lake archaeological resources.

b. Historic Sites. The 1993 Kings County General Plan identifies four sites in the County that are listed on the National Register of Historic Places, and three additional sites that have been designated as California Historical Landmarks. Three of the sites on the National Register are in Hanford: the Taoist Temple; the old County Courthouse; and the Carnegie Library. The fourth site is the Witt archaeological site near Dudley Ridge. The three California Historical Landmarks are the Mussel Slough Tragedy site south of Hardwick; the Kingston Town site north of Hardwick; and the El Adobe de los Robles Rancho west of Lemoore. These sites are located in the unincorporated portions of the County. The 1993 General Plan also identifies 16 additional historic sites of local importance. The sites include seven cemeteries and two churches located in Corcoran, Lemoore, Grangeville, and other rural areas in the northern County. Additional sites include the original site of Lemoore, Avenal Ranch, Kettleman Hills fossil beds, and First High School on the Kings River. Refer to Figure 4.5-1 for a map of existing historical sites throughout the County.

c. Regulatory Setting. A property may be designated as historic by National, State, or local authorities. In order for a building to qualify for listing in the National Register of Historic Places, the California Register of Historical Resources, or as a locally significant property in the County, it must meet one or more identified criteria of significance. If the designation is for a building, the structure should also retain sufficient architectural integrity to continue to evoke the sense of place and time with which it is historically associated. An explanation of these designations follows.

National Register of Historic Places. The National Register of Historic Places (NRHP), which is administered by the National Park Service, is "an authoritative guide to be used by federal, state, and local governments, private groups, and citizens to identify the nation's cultural resources and to indicate what properties should be considered for protection from

Site	Name
1	Anvenal Ranch (Adobe Barn and House)
2	Calvary Cemetery
3	Corcoran Cemetery
4	El Adobe de los Robles Rancho
5	First High School
6	Grangeville Cemetery
7	Indian Cemetery
8	Kettleman City Lakeshore Fossil Beds (Kettleman Hills)
9	Kings River Church
10	Kings River Cemetery
11	Kingston Town Site
12	Lakeside Cemetery
13	Methodist Church of Grangeville
14	Mussel Slough Tragedy Site
15	Rhoads Cemetary
16	Site of Lemoore



Base map source: Map images copyright © 2009 ESRI and its licensors. All rights reserved. Used by permission. U.S. Bureau of the Census TIGER 2000 data and Kings County Community Development Agency, 2004.

Legend

Historical Sites

Additional Overlays

Community Boundary

City Boundary (Not part of General Plan)

Naval Air Station Lemoore Boundary (Not part of General Plan)

Tribal Lands (Not part of General Plan)

N

0 5 10 Miles

Kings County Historical Sites

Figure 4.5-1

destruction or impairment." However, federal regulations explicitly provide that National Register listing of private property "does not prohibit under federal law or regulation any actions which may otherwise be taken by the property owner with respect to the property."

Listing in the National Register assists in preservation of historic properties through the following actions: recognition that a property is of significance to the nation, the state, or the community; consideration in planning for Federal or federally assisted projects; eligibility for Federal tax benefits; consideration in the decision to issue a federal permit; and qualification for Federal assistance for historic preservation grants, when funds are available. Properties may qualify for NRHP listing if they:

A. *Are associated with events that have made a significant contribution to the broad patterns of our history*
B. *Are associated with the lives of persons significant in our past*
C. *Embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction*
D. *Have yielded, or may be likely to yield, information important in prehistory or history*

According to the NRHP guidelines, the essential physical features of a property must be present for it to be considered significant. Further, in order to qualify for the NRHP, a resource must retain its integrity, or the "ability to convey its significance." The seven aspects of integrity are:

1. *Location (the place where the historic property was constructed or the place where the historic event occurred);*
2. *Design (the combination of elements that create the form, plan, space, structure, and style of a property);*
3. *Setting (the physical environment of a historic property);*
4. *Materials (the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property);*
5. *Workmanship (the physical evidence of the crafts of a particular culture or people during any given period of history or prehistory);*
6. *Feeling (a property's expression of the aesthetic or historic sense of a particular period of time); and*
7. *Association (the direct link between an important historic event or person and a historic property).*

The relevant aspects of integrity depend upon the NRHP criteria applied to the property. For example, a property nominated under the location criterion would be likely to convey its significance primarily through integrity of location, setting, and association. A property nominated solely under the design criterion would usually rely primarily on integrity of design, materials, and workmanship. The California Register procedures include similar language with regard to integrity.

California Register of Historic Resources. The California Register of Historic Resources (CRHR) is an authoritative guide in California used by State and local agencies, private groups, and citizens to identify the State's historical resources and to indicate which properties are to be

protected, to the extent prudent and feasible, from substantial adverse change. A resource is eligible for listing on the California Register if it meets any of the following criteria for listing:

A. *It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;*
B. *It is associated with the lives of persons important in our past;*
C. *It embodies the distinctive work of an important creative individual, or possesses high artistic values; or*
D. *It has yielded, or may be likely to yield, information important in prehistory or history.*

The California Register may also include properties listed in "local registers" of historic properties. A "local register of historic resources" is broadly defined in Public Resources Code Section 5020.1(k) as "a list of properties officially designated or recognized as historically significant by a local government pursuant to a local ordinance or resolution." Local registers of historic properties come in two forms: (1) surveys of historic resources conducted by a local agency in accordance with Office of Historic Preservation procedures and standards, adopted by the local agency and maintained as current; and (2) landmarks designated under local ordinances or resolutions (Public Resources Code Sections 5024.1, 21804.1, 15064.5).

By definition, the CRHR also includes all "properties formally determined eligible for, or listed in, the [NRHP]," and certain specified State Historical Landmarks. The majority of formal determinations of NRHP eligibility occur when properties are evaluated by the State Office of Historic Preservation in connection with federal environmental review procedures (Section 106 of the Historic Preservation Act of 1966). Formal determinations of eligibility also occur when properties are nominated to the NRHP, but are not listed due to owner objection. The minimum age criterion for the NRHP and the California Register is 50 years. Properties less than 50 years old may be eligible for listing on the NRHP if they can be regarded as "exceptional", as defined by the NRHP procedures, or in terms of the California Register, if "it can be demonstrated that sufficient time has passed to understand its historical importance."

4.5.2 Impact Analysis

a. Methodology and Significance Thresholds. Evaluation of significance under CEQA is based on eligibility for listing on the NRHP or the CRHR. The NRHP is an effective planning tool for both long term and short-term cultural resource management considerations. An evaluation of significance in prehistoric and historic sites is usually measured by a number of variables, which reflect their applicability to present, and future research questions posed by scientists in describing and explaining culture change.

Generally, a project that follows the Secretary of the Interior's *Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings*, or the Secretary of the Interior's *Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings* (1995), shall be considered as mitigated to a level of less than a significant impact on the historical resource.

Archaeological materials are fragile and non-renewable. Thus, any activity that alters the surface of the land, inducing archaeological pursuits, can affect these resources. The cultural resource evaluation process requires that a resource, or the information it represents, be related

to some framework held in common by all archaeologists, and thus provide a measure of reference for determining the potential significance of similar resources. This framework usually addresses research orientation, and geographic, cultural and temporal questions within the context of significance.

The fact that a resource is not listed in, or determined to be eligible for listing in the CRHR, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code sections 5020.1(j) or 5024.1.

If development facilitated under the General Plan Update causes damage to a significant archaeological resource, implementation of the General Plan may have a significant effect on the environment. Section 15064.5 of CEQA pertains to the determination of the significance of impacts to archaeological and historic resources. CEQA provides guidelines for administering to archaeological resources that may be adversely affected by development in Section 151226.4. Achieving CEQA compliance with regard to treatment of impacts to significant cultural resources requires that a mitigation plan be developed for the resource(s). Preservation in place is the preferred manner of mitigating impacts to significant archaeological resources.

Direct impacts may occur by:

(1) Physically damaging, destroying, or altering all or part of the resource;
(2) Altering characteristics of the surrounding environment that contribute to the resource's significance;
(3) Neglecting the resource to the extent that it deteriorates or is destroyed. Indirect impacts primarily result from the effects of project-induced population growth. Such growth can result in increased construction as well as increased recreational activities that can disturb or destroy cultural resources; or
(4) The incidental discovery of cultural resources without proper notification.

Direct impacts can be assessed by identifying the types and locations of development facilitated under the General Plan, determining the exact locations of cultural resources, assessing the potential significance of the resources that may be affected, and determining the appropriate mitigation.

Indirect impacts primarily result from the effects of buildout upon implementation of the General Plan. Such growth can result in increased construction as well as increased recreational activities that can disturb or destroy cultural resources. Due to their nature, indirect impacts are more difficult to assess and quantify.

b. Project and Cumulative Impacts.

Impact CR-1 Development facilitated by the proposed 2035 General Plan could adversely impact identified and previously unidentified historic and archaeological resources. Because the General Plan would include policies to address this on a case-by-case basis, this is considered a Class III, *less than significant,* impact.

It is known that prehistoric populations are present in Kings County and the surrounding area, and that the plan area contains more than 90 identified cultural resource sites (CHRIS, 2004). In addition, as noted in the *Setting*, the 1993 General Plan identifies 16 historic sites throughout the County. There is also the potential to encounter additional, undiscovered resources within the County (and/or potential Community Plan areas). Therefore, the 2035 General Plan could potentially facilitate development in areas of cultural resource sensitivity. However, proposed 2035 General Plan policies and existing regulations pertaining to the discovery of cultural resources would ensure that impacts are less than significant.

General Plan Policies which Reduce Impacts. The *2035 General Plan Resource Conservation Element* includes specific policies intended to ensure that potential impacts to archaeological, cultural, and historic resources are addressed in conjunction with development of individual sites within the plan area. These policies include:

RC GOAL I1 *Preserve significant historical and archaeological sites and structures that represent the ethnic, cultural, and economic groups that have lived and worked in Kings County.*

RC OBJ I1.1 *Promote the rehabilitation or adaptation to new uses of historic sites and structures.*

RC Policy I1.1.2 *Direct proposed developments that may affect proposed or designated historic sites or County landmarks to the Kings County Museum Advisory Committee or other similarly purposed advisory body under the Kings County Parks and Recreation Advisory Commission for review and comment.*

RC Policy I1.1.3 *Encourage the protection of cultural and archaeological sites with potential for placement on the National Register of Historic Places and/or inclusion in the California Inventory of Historic Resources.*

RC Policy I1.1.4 *Refer applications that involve the removal, destruction, or alteration of proposed or designated historic sites or County landmarks to the Kings County Museum Advisory Committee or its successor for recommended mitigation measures.*

RC OBJ I1.2 *Identify potential archaeological and historical resources and, where appropriate, protect such resources.*

RC Policy I1.2.1 *Participate in and support efforts to identify significant cultural and archaeological resources and protect those resources in accordance to Public Resources Code 5097.9 and 5097.993.*

RC Policy I1.2.2 *Continue to solicit input from local Native American communities in cases where development may result in disturbance to sites containing evidence of Native American Activity and/or to sites of cultural importance.*

RC Policy I1.2.3 *Address archaeological and cultural resources in accordance with the California Environmental Quality Act (CEQA) for discretionary land use applications.*

RC Policy I1.2.4 *The County will respectfully comply with Government Code §65352.3 (SB18) by conducting formal consultations with tribes as identified by the Native American Heritage Commission on all general plan and specific plan amendments.*

RC Policy I1.2.5 *The County will respectfully comply with Government Code §6254.(r) and 6254.10 by protecting confidential information concerning Native American cultural resources. For example adopting internal procedures such as keeping confidential archaeological reports away from public view or discussion in public meetings.*

RC Policy I1.2.1.6 *The County shall work in good faith with the Santa Rosa Rancheria Tachi Yokut Tribe ("Tribe"), the developer and other parties if the Tribe requests return of certain Native American artifacts from private development projects (e.g. for interpretive or educational value). The developer is expected to act in good faith when considering the Tribe's request for artifacts. Artifacts not desired by the Tribe shall be placed in a qualified repository as established by the California State Historical Resources Commission (see Guidelines for the Curation of Archaeological Collections, May 1993). If no facility is available, then all artifacts shall be donated to the Tribe.*

The *Armona Community Plan* includes specific policies intended to ensure that potential impacts to archaeological, cultural, and historic resources are addressed in conjunction with development of individual sites within the plan area. These policies include:

ACP Policy 4A.1.4 *Preserve historical landmarks and require new development to integrate these Community valued features into the overall design of the development.*

ACP Policy 8D.1.1 *New development within the Armona Community Planning Area shall be required to provide onsite monitoring for archaeological, cultural and historic remains and artifacts whenever earth moving construction activities have unearthed archaeological remains. Monitoring shall be done by an individual or firm that is found acceptable by the Tachi Yokut Tribe based at the Santa Rosa Rancheria.*

ACP Policy 8D.1.2	*If any discoveries are made, construction shall immediately cease and the nature of the finding determined. The local tribe(s) as identified by the California Native American Heritage Commission shall be immediately notified and allowed the opportunity to evaluate the findings.*

The *Kettleman City and Stratford Community Plans* include the following policies intended to ensure that potential impacts to archaeological, cultural, and historic resources are addressed in conjunction with development of individual sites within the plan area. These policies include:

KCCP & SCP GOAL 8D	*Preserve archaeological, cultural and historic resources, and treat all historic human remains and artifacts with dignity and respect.*
KCCP & SCP OBJ 8D.1	*Ensure archaeological, cultural and historic resources are immediately identified to reduce the chance of disruption or destruction, and provide earliest notification to responsible parties of interest.*
KCCP & SCP Policy 8D.1.1	*New development within the Kettleman City/Stratford Community Planning Area shall be required to provide onsite monitoring for archeological, cultural and historic remains and artifacts when ever earth moving construction activities commence. Monitoring shall be done by an individual or firm that is found acceptable by the Tachi Yokut Tribe based at the Santa Rosa Rancheria.*
KCCP & SCP Policy 8D.1.2	*If any discoveries are made, construction shall immediately cease and the nature of the finding determined. The local tribe(s) as identified by the California Native American Heritage Commission shall be immediately notified and allowed the opportunity to evaluate the findings.*

The *Home Garden Community Plan* does not contain any policies pertaining to the protection and preservation of archaeological, cultural, and historic resources. However, all individual development projects within these communities will be required to comply with the applicable regulations and standards regarding the protection and preservation of archaeological, cultural, and historic resources, based on the policy direction within the Resource Conservation Element of the 2035 General Plan.

Mitigation Measures. No significant impacts are identified.

Significance after Mitigation. Without any mitigation measures, program level impacts would be less than significant.

4.6 GEOLOGY

This section describes the geologic, soils, and seismic conditions within Kings County and expected impacts associated with implementation of development under the proposed General Plan. The information is based on published and unpublished reports and maps prepared by the U.S. Geological Survey, the Soil Conservation Service (now known as the Natural Resource Conservation Service), the California Division of Mines and Geology, and the Kings County Community Development Agency.

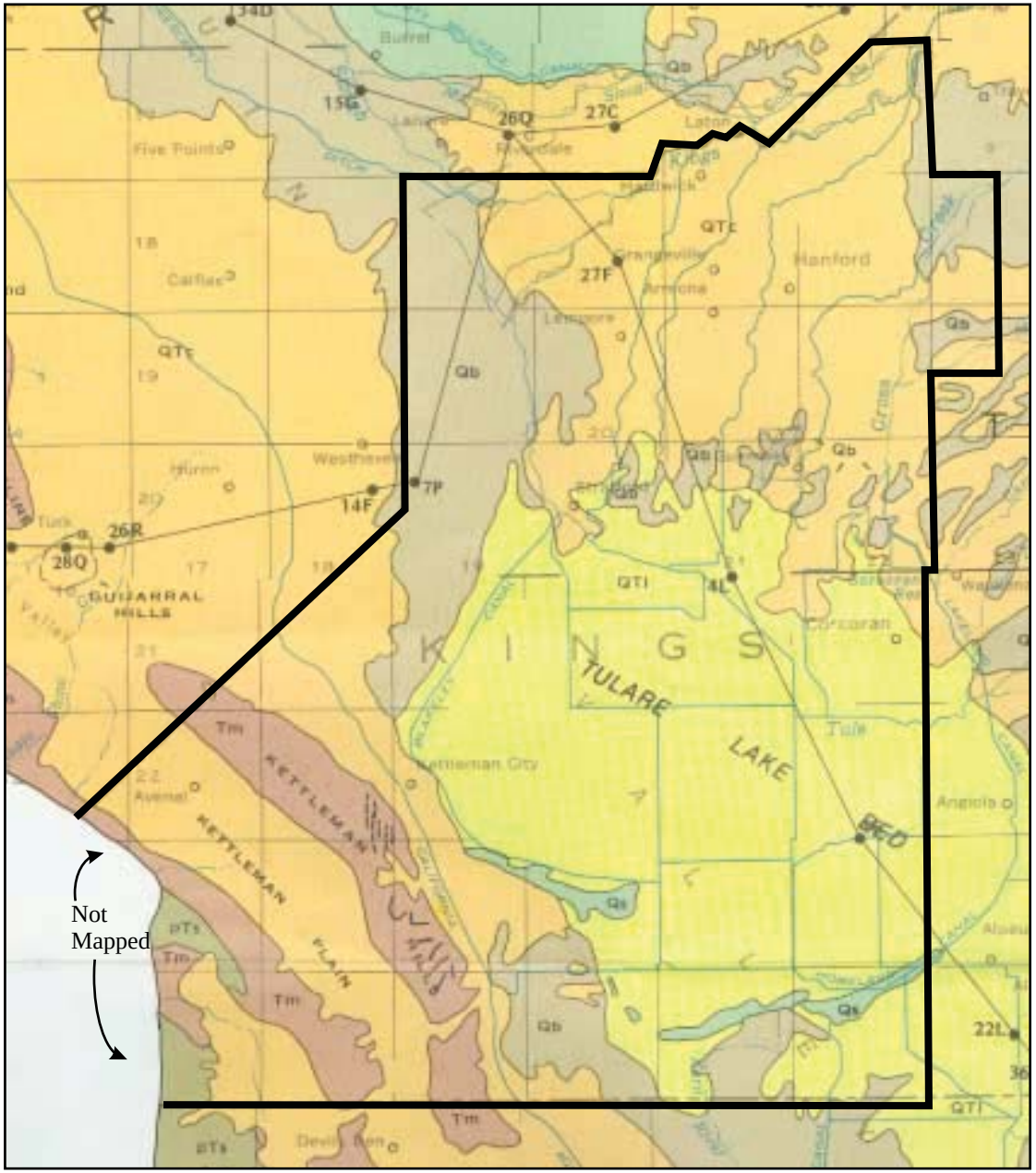
4.6.1 Setting

a. Regional Geology. Kings County is located in the west-central portion of the San Joaquin Valley, the southern section of the Great Valley Geomorphic Province of California. The Great Valley (also referred to as the Central Valley) is a large, asymmetrical, northwestwardly-trending, structural trough formed between the uplands of the California Coast Ranges to the west and the Sierra Nevada mountain range to the east (Figure 4.6-1). The Great Valley is over 400 miles long and approximately 50 to 60 miles wide in the project area. The Valley is subdivided into the Sacramento Valley (north of the Sacramento-San Joaquin Delta) and the San Joaquin Valley (south of the Delta). The southern part of the Valley (including most of Kings County) is internally draining, with the distributaries of the Kings and Tule rivers and Cross Creek flowing into the Tulare Lake Bed. North of the Kings River, runoff is directed into the San Joaquin River, which flows northward.

The southern San Joaquin Valley is bounded by the low mountains of the Coast Ranges to the west, the San Emiggdio and Tehachapi Ranges to the south, and the foothills of the Sierra Nevada to the east. The valley is filled with up to six vertical miles of sediment (Norris and Webb, 1990). The sediments include marine, alluvial, and lacustrine (lake) deposits. The valley is asymmetric with its axis located to the west of the geographic center of the valley. In general, the rivers lie along the axis and the thickest accumulation of sediments is also located along the axis. The geologic structure in the subsurface produced by folding and faulting and the presence of significant petroleum source rocks and suitable reservoir rocks has resulted in the development of numerous oil and gas fields within the southern San Joaquin Valley (including the Kettleman Hills. This sedimentary sequence is underlain in the west by granitic and metamorphic rocks of the Sierran structural block and by mafic and ultramafic bedrock in the east.

The alluvial sediments include relatively coarse-grained deposits along river channels and alluvial fans on the margin of the valley. These sediments include the Tulare and San Joaquin Formations, which outcrop along the western margin of the valley and dip toward the center of the valley. These formations are relatively resistant to erosion and form low hills, including the Kettleman Hills in southwestern Kings County.

During the wetter climatic periods of the Pleistocene Epoch (1.8 million to 11,000 years ago), a series of lakes formed in the western, lowest portions of the valley floor. These lakes included, from north to south, Tulare, Buena Vista, and Kern lakes. During the relatively warmer and drier climatic conditions of the Holocene Epoch (the last 11,000 years), the water levels in the lakes receded and the lakes became seasonal lakes or playas. Fine-grained lake deposits are



Legend

Qs	Sand dunes (Holocene)
Qb	Flood-basin deposits
Qr	River deposits (Holocene)
QTl	Lacustrine and marsh deposits (Pliocene to Holocene)
QTc	Continental rocks and deposits (Miocene to Holocene)
Tm	Marine rocks and deposits (Eocene, Oligocene, Miocene, and Pliocen
pTs	Marine rocks (Pre-Tertiary)
———	Contact approximately located
– – – ·····	Fault dashed where approximately located, dotted where concealed
D —— D′	Line of geologic section
● 34A	Well and number

N

0 2 4 8

Scale in Miles

Base map source: Page, 1986 and County of Kings, 2002.

Geologic Map

Figure 4.6-1

enduring evidence of the presence of the lakes. During the late nineteenth and early twentieth century's, much of the area of the lakes were drained and put into agricultural production. The central portion of Kings County (Figure 4.1-1) occupies a portion of Tulare Lake, the largest of the Pleistocene lakes. The Kings, Kaweah (Cross Creek), and Tule River Canal, as well as other distributaries, terminate within the former Tulare Lake Bed, which partially and temporarily fills during periods of high runoff.

Finer-grained lacustrine and flood basin deposits related to the Pleistocene lakes are found in the central portion of the valley (Page, 1986). The Tulare, Kern, and Buena Vista Lake Beds were sediment deposition centers located within structural depressions on the valley floor. Tectonic subsidence of the surface is caused by down-warping of the earth's crust. The fine-grained sediments underlying the Tulare Lake Bed are more than 3,600 feet thick. These deposits include the E clay, a diatomaceous clay deposited over a very large area of the San Joaquin Valley. The E clay is considered equivalent to the Corcoran Clay Member of the Tulare Formation. Within Kings County the top of the E clay occurs at depths of approximately 250 to 900 feet and the layer is up to 160 feet thick.

In addition to the E clay, other younger, less extensive but similar clay deposits have been recognized. These deposits are found along the topographic axis of the valley, including the area of the project site. The C clay is mapped from near the town of Mendota in northern Fresno County to the Kern Lake Bed. This unit ranges in depth from about 100 to 330 feet below the ground surface and is 5 to 45 feet thick. The A clay is the youngest of the clay deposits and is also found underlying the axis of the valley. This unit is typically encountered at depths of less than 10 to 70 feet and is generally 5 to 70 feet thick. The presence of the A clay usually results in perching of groundwater at shallow depths.

b. Geomorphology and Topography. The most prominent topographic feature in Kings County is the Tulare Lake Bed. The lake bed is a broad, shallow depression covering the central and southern portions of the County. The land surface within the basin is nearly flat but has been modified significantly by agricultural grading. The average elevation of the lake bed is approximately 175 and 192 feet National Geodetic Vertical Datum (NGVD). The northern portion of the County is typified by alluvial fan surfaces formed along the Kings and Tule rivers and Cross Creek. The alluvial fan surface slopes gently toward the Tulare Lake Bed.

The Kettleman Hills region, located in the southwestern portion of the County, forms a distinct geomorphic setting. The region of the County is characterized by northwest southeast trending ridges (i.e., Kettleman Hills, Pyramid Hills, Keryenhagen Hills, and Avenal Ridge) and intervening valleys (i.e., Kettleman Plains and Sunflower Valley). The topography is developed on folded and faulted Pleistocene and Pliocene sedimentary rocks. The ridges rise to a maximum elevation of 3,473 feet NGVD at Table Mountain at the western boundary of Kings County. The slopes are moderately steep to steep.

Soil Characteristics. Soil is generally defined as the unconsolidated mixture of mineral grains and organic material that mantles the land surfaces of the earth. Soils can develop on unconsolidated sediments and weathered bedrock. The characteristics of soil reflect the five major influences on their development topography, climate, biological activity, parent (source) material, and time. The surface soils throughout Kings County have been mapped (Figure 4.6-

2) by the U.S. Soil Conservation Service (USDA, 1986), an agency now known as the Natural Resource Conservation Service (NRCS). In general, there are six general types of soil (called associations) within the County. The soil associations are comprised of similar specific soil types (called mapping units), which have developed on similar geologic materials and topography.

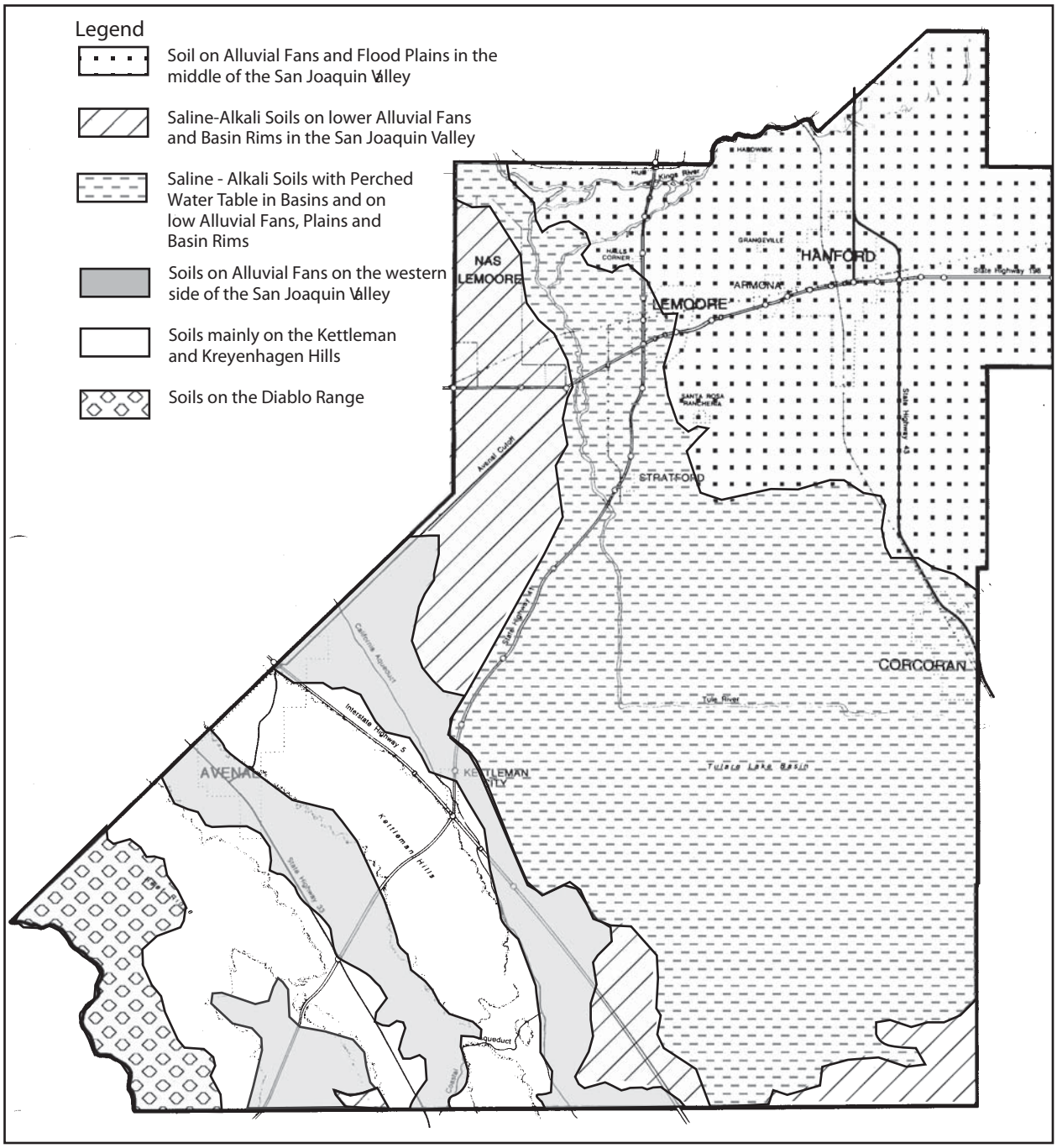
Northeast Alluvial Fans. The alluvial fan surfaces in the northeastern portion of the County are mantled with very deep, well-drained, saline-alkali soils. These soils include three soil associations. The Nord association soils are located in the northeast corner of the County, in the higher portions of the Cross Creek alluvial fan. The Kimberlina-Garces association mantles the lower portions of this alluvial fan. The soils developed on the alluvial fan along the Kings River are mapped as Remnoy-Melga-Youd association. The soils of the Kimberlina-Garces and Remnoy-Melga-Youd associations are very deep, nearly level saline-alkali soils. The surface horizons are sandy loams and fine sandy loams. The Remnoy-Melga-Youd association soils have a prominent hardpan. The permeability is moderately slow to very slow. Runoff is usually very slow and the erosion potential is slight. The Nord soils are similar although typically less saline and alkaline.

The agricultural Capability Class ranges from I to III and the predominant land use on these soils is primarily for row and field crop production. The soils of the Kimberlina-Garces and Remnoy-Melga-Youd associations are best suited for salt- and alkali-tolerant, drought-resistant crops. Generally, soils in this group contain soil properties that present only slight limitations to building site development.

Low Alluvial Fans and Basin Rim. The lower portions of alluvial fans that border the northeastern and southeastern margins of the Tulare Lake Basin are transitional in character relative to the upper portions of the alluvial fans and the lake basin. The Lethent, Lethent-Garces-Panoche, and Lethent-Excelsior soil associations are found in these areas. Soils of these associations typically have loam, clay loam, or sandy clay loam surface soils and clay, clay loam, or silt loam subsurface soils. Most of the horizons are alkaline and saline and have high corrosivity for steel and concrete. Some mapping units within this group of soils are calcareous. The permeability is moderate to very slow and runoff is slow or very slow.

The soils are used primarily for irrigated row and field crop production. The soils are best suited for salt- and alkali-tolerant, drought-resistant crops. Most of the soils are Capability Class I through III. The primary limitation, when present, is the droughty nature of these soils. Building site limitations are primarily high shrink-swell potential and high corrosivity.

Tulare Lake Basin and Basin Rim. The soils within and at the margins of the Tulare Lake Basin saline-alkali soils developed in areas of perched shallow groundwater. These soils characterize most of the central portion of the County. Three soil associations are represented, Gepford-Westcamp-Houser, Tulare, and Armona-Lakeside-Grangeville. These soils are very



Base map source: USDA, 1986 and County of Kings, 2002.

N

0 3.5 7

Scale in Miles
(*Approximate*)

Generalized Soils Map

Figure 4.6-2

deeply developed on nearly flat alluvial deposits and are typically somewhat poorly drained to poorly drained. The nearly level topography results in slow runoff and negligible erosion potential. The surface horizon is typically fine-grained, ranging from fine sandy loam to clay. Subsurface horizons are also fine-grained. The permeability is slow to very slow and shrink-swell potential is high. The saline-alkali soils cause high corrosivity to concrete and steel. The soils are used primarily for irrigated row and field crop production. The soils are best suited for salt- and alkali-tolerant, drought-resistant crops. Most of the soils are Capability Class III with the primary limitation being shallow groundwater.

Southwestern Valleys. The Kettleman Plain, Sunflower Valley, and the western margin of the Kettleman Hills contain some of the best quality agricultural soils in Kings County. Although the texture and chemistry of the soils are well suited for agriculture, the availability of water limits agricultural productivity. The soil associations that occur in these areas are Avenal-Panoche, Panoche-Wasco, and Wasco-Panoche-Westhaven. These soils are deeply developed on alluvium and are well drained to moderately well drained. The surface soils are typically loam and sandy loam. The permeability is moderately slow to moderately rapid. Runoff is moderate and the erosion hazard is moderate. The shrink-swell potential is moderate to high, presenting a limitation to building development.

As indicated above, the areas mapped as these associations are not typically irrigated and are used primarily for non-irrigated crop production and grazing. Assuming that these soils are not irrigated, the Capability Class is VII. If irrigated, the Capability Class is upgraded to II, with the primary limitation being the erosion hazard and arid climate.

Southwestern Uplands. The soils of the uplands of the southwestern portion of the County, including the Kettleman Hills, Pyramid Hills, Keryenhagen Hills, and the Diablo Range, have severe limitations for agriculture and building development. The soils are developed within colluvium on sedimentary bedrock and are shallow and well-drained to excessively well-drained. The erosion hazard is high. The soil associations within the upland area include the Henneke-Wasesprings-Millsholm and Graviota-Vaquero-Altamont associations in the foothills of the Diablo Range, and the Kettleman-Cantuan-Mercey, Delgado-Kettleman, and Delgado-Carollo associations in the Kettleman and Kreyenhagen Hills. Severe limitations for agriculture include low rainfall, high erosion hazard, shallow depth to bedrock, and excessive shrink-swell potential. The areas are used primarily for rangeland and wildlife habitat. Grazing is generally restricted to winter and spring by low rainfall.

c. Seismicity. Kings County has no known major fault systems within its boundaries. The greatest potential for seismic activity in Kings County is posed by the San Andreas Fault, which is located approximately four miles west of the Kings County line. The San Andreas Fault marks the divide between the North American and the Pacific Tectonic Plates. Another large fault that may pose potential geologic hazards for Kings County is the White Wolf fault located south of the County near Arvin and Bakersfield.

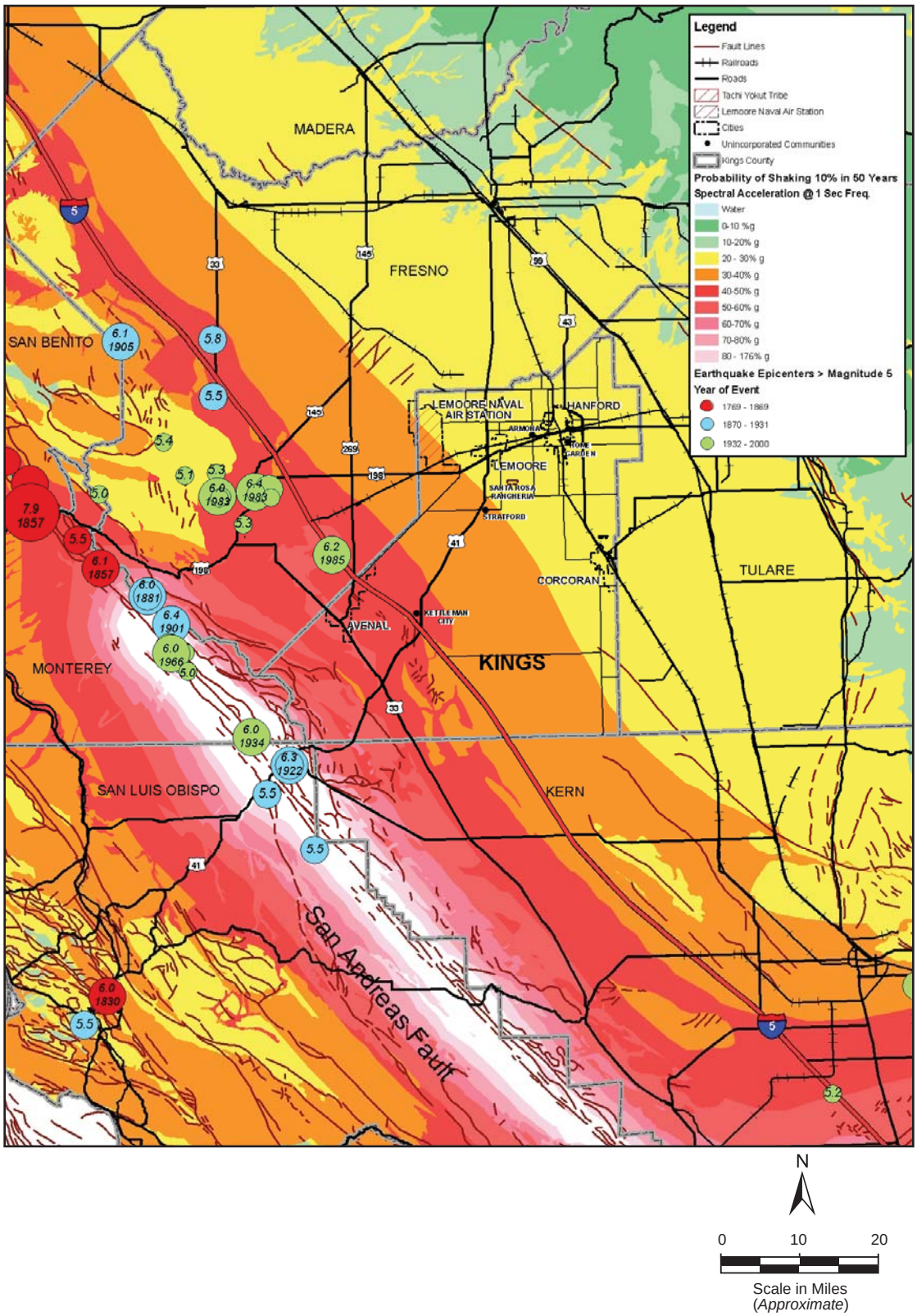
Over the past 200 years, Kings County has not experienced any damaging earthquake equal to or greater than a Mercalli Index (M) 6.0. However, several more significant earthquakes have occurred within close vicinity of the County's boundary. The largest and most forceful earthquake was the 1857 Fort Tejon earthquake (M 7.9) with an epicenter that occurred in

Monterey County approximately seven miles west of the Kings County boundary in the community of Parkfield. During this event the San Andreas Fault ruptured for a length of approximately 225 miles between Parkfield and San Bernardino. The largest earthquake in Southern California since the Fort Tejon earthquake was the 1952 Kern County earthquake (M 7.3) which occurred on the White Wolf fault. The epicenter for this quake occurred approximately 38 miles southeast of the Kings County boundary near Bakersfield and produced ground shaking felt over 200 miles away. The most recent earthquakes to affect Kings County occurred during the 1980's. The 1982 New Idria earthquake (M 5.4) and the 1983 Coalinga (M6.5) earthquakes both occurred approximately 20 miles from the western border of Kings County. The 1985 Kettleman Hills earthquake (M 6.1) followed these two earthquakes with an epicenter located four miles west of the Kings County border just north of the City of Avenal. All three of these earthquake incidents produced low-level ground shaking and low local magnitude in Kings County. Figure 4.6–3 identifies Earthquake Hazards including historical epicenter locations.

The potential for ground shaking is discussed in terms of the percent probability of exceeding peak ground acceleration (% g) in the next 50 years. It varies from 20-30% g in the northeast third of the county, including the cities of Hanford, Lemoore, Corcoran, and the Santa Rosa Rancheria to 30-40% g in the central part of the county, which is primarily agricultural. Earthquake hazard is more severe in the southwest third of the county and the city of Avenal. The potential for ground shaking in this area ranges from 40-50% g to 70-80% g at the southwestern county line.

The primary hazard due to seismic activity in Kings County would come from ground shaking. The potential for extensive surface rupture is considered to be minimal, since Kings County does not contain a major fault system. Minor surface rupture could be expected in areas of minor faulting, primarily in the southwestern portion of Kings County along the Kettleman Hills or west of Kings County along the Nunez Fault located near Coalinga. Research coordinated by the Southern California Earthquake Center in 1995 concluded that there is an 80 to 90 percent probability that an earthquake of M 7.0 or greater will hit Southern California along the San Andreas fault before 2024 (CA-SHMP 2004). The southern San Andreas Fault section near the Fort Tejon earthquake of 1857, is considered a likely location for an earthquake within the next few decades (USGS 1997). Earthquake recurrence on the southern San Andreas Fault varies greatly from under 20 years at Parkfield to more than 200 years in other sections.

Additional technical data is also derived from the 1974 Five County Seismic Safety Element, which is still valid and is the basis for the Kings County Seismic Zone Description (Table 4.6-1) and Seismic Safety Map included as Figure 4.6–4. Seismic Zones are categorized by the intensity of ground motion that could be reasonably anticipated if an earthquake affected Kings County. Within Kings County, territory is divided between two Seismic Zone groups that correspond to general groundshaking characteristics. Valley Zones (V1 through V4), represents areas along the valley floor with highest near-surface amplification identified along the west and decreasing towards the east due to the damping of thick alluvial sediments. Coast Ranges Zones (C1 and C2) represent the Kettleman Hills and Coast Range areas that are closest to the San Andreas Fault and anticipated to experience moderately high ground shaking levels. The safest zones correspond generally to the areas of greatest population within the County. Zone V1, the area of least expected seismic shaking, encompasses the Cities of Hanford and Lemoore,



Source: *County of Kings 2002.*

Kings County Earthquake Hazards

Figure 4.6-3

Communities of Armona, Home Garden and Stratford, and Naval Air Station Lemoore residential areas and Santa Rosa Rancheria. Zone V2 contains the City of Corcoran. Kettleman City and Avenal; however, are located within Zone V4 and adjacent to more critical Coast Range Zones.

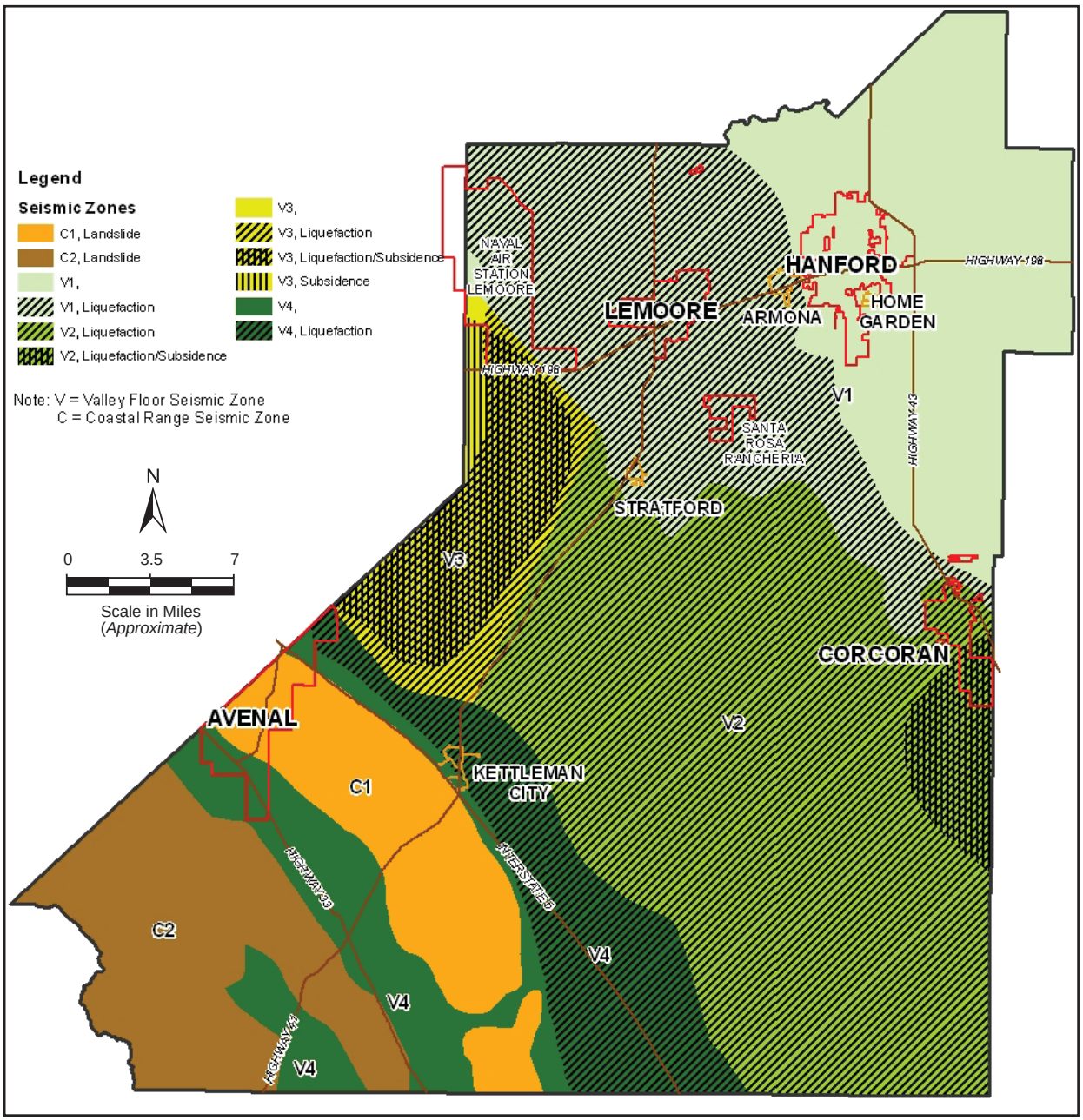
Land use policies will continue to require large minimum parcel sizes in agricultural and natural resource conservation zones, and reduce potential losses by lowering potential development density throughout more intensive seismic zones. Construction in the more critical seismic zones, however, would probably require additional reinforcement to offset the increased expected seismic forces.

Table 4.6-1. Seismic Zone Description

Seismic Zone	Generalized Geologic Formations	Amplification of Shaking
*V1	Moderately thick section of marine and continental sedimentary deposits overlying the granitic basement complex	Amplification of shaking that would affect low to medium- rise structures is relatively high but the distance to either of the fault systems that are expected sources of the shaking is sufficiently great that the effect should be minimal
*V2	Moderately thick section of marine and continental sedimentary deposits overlying the granitic basement complex	Amplification of shaking that would affect low to medium- rise structures is low and the distance to the San Andreas fault zone is moderate. The combined effect is that shaking is expected to be minimal
*V3	Thick section of marine and continental sedimentary deposits	Amplification of shaking is reduced by the damping effect of the thick sedimentary section, but the moderate proximity of the San Andreas fault zone results in a moderate increase in expected shaking over that for the east side of the valley
*V4	Thick section of consolidated sedimentary units overlain by thick unconsolidated alluvial fan deposits	Amplification of shaking is reduced by the damping effect of the thick sedimentary section, but its moderately close proximity to the San Andreas fault zone results in the expectation of moderately high shaking characteristics
**C1	Thick section of consolidated sedimentary units, with a high frequency of exposure	Amplification of shaking is low because of the firm nature of the surface in this area. But, because of its close proximity to the San Andreas fault zone, the combination results in moderate to moderately high shaking characteristics
**C2	Moderately thick section of marine sedimentary rock unit with a high frequency of exposure throughout the area, with some metamorphics locally, which are of minor importance	Amplification is low, but the close proximity of the San Andreas fault zone should result in moderately high to high shaking characteristics

** Valley Floor Seismic Zone ** Coastal Range Seismic Zone Source: 1974 Five County Seismic Safety Element*

d. Subsidence and Liquefaction. Ground settlement and soil compaction may occur as a result of seismic ground shaking. When unconsolidated valley sediments are saturated with water, water is forced to the ground surface, where it emerges in the form of mud spouts or sand boils. If soil liquefies in this manner (liquefaction), it loses its supporting capacity, which can result in the minor displacement to total collapse of structures. These types of unconsolidated sediments represent the poorest kind of soil condition for resisting seismic shock waves. The potential for liquefaction is recognized throughout the San Joaquin Valley where unconsolidated sediments and a high water table coincide (Kings County Emergency Operations Plan 2002). However, the risk and danger of liquefaction and subsidence occurring within the County is considered to be minimal.



Base map source: County of Kings, 2009.

Seismic Safety Map

Figure 4.6-4

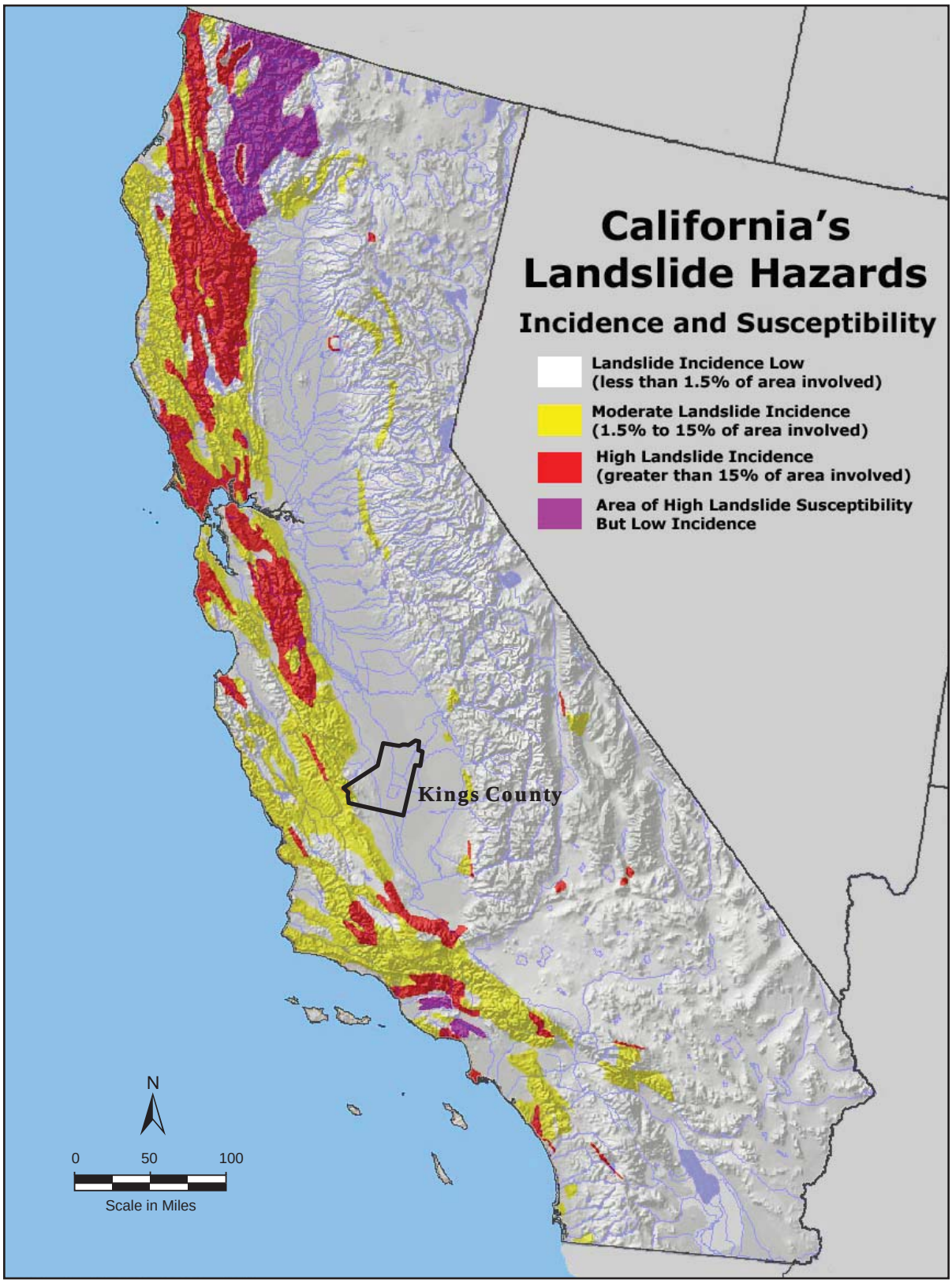
Most of Kings County east of Interstate 5 and west of the State Route 43 is mapped as having liquefaction potential according to the Five County Seismic Safety Element and also displayed on Figure 4.6-4. Figure 4.6-4 shows various seismic zones and areas where landslides, subsidence, or liquefaction could possibly occur. As detailed in Figure 4.6-4, S-2, Zones V4, C1, and C2 would likely experience the greatest ground shaking. Consideration of future development proposals in areas of potential liquefaction should place primary emphasis upon communicating to developers the findings of the Five County Seismic Safety Element and studies performed by the U.S. Geological Survey. The problem of potential liquefaction should be handled on a site-by-site basis by a licensed soils engineer.

e. Landslides. Landslides may be triggered by both natural and human induced changes in the environment resulting in slope instability. Precipitation, topography, and geology affect landslides and debris flows. Human activities, such as mining, road construction, and changes to surface drainage areas, also affect the landslide potential. Landslides often accompany other natural hazard events, such as floods, wildfires, or earthquakes. They can also occur slowly or very suddenly and damage and destroy structures, roads, utilities, and forested areas and cause injuries and death.

Kings County, however, is fortunate to have very "Low" to "Moderate" risk landslide areas that are located in remote uninhabited sections of southwest Kings County. Although landslides are primarily associated with steep slopes (i.e., greater than 15 percent), they may also occur in areas of generally low relief and as cut-and-fill failures, river bluff failures, lateral spreading landslides, collapse of mine waste piles, and failures associated with quarries and open-pit mines.

The USGS Landslide Hazards map was used to identify possible landslide problem areas. Figure 4.6-5 depicts where territories throughout the State, including Kings County, may be susceptible to landslides. Those areas potentially susceptible to landslides within Kings County are nearly all defined as having "Low" (less than 1.5 percent of area involved) and "Moderate" potential (1.5 to 15 percent of area involved) for landslide incident. A smaller portion of land within the Coast Ranges, along the southwest corner of the County, is the only area rated to have "High" (Greater than 15 percent of area involved) landslide incident probability. However, this portion of the county is designated for Agricultural and Natural Resource Conservation land uses and therefore not likely to result in any dense population or development.

f. Mineral Resources. According to both the existing and proposed Resource Conservation Element of the Kings County General Plan, there are currently no mineral extraction activities occurring within the County. The California Division of Mines and Geology has not identified any significant mineral resources within the County. Oil and gas resources have been identified in and extracted from portions of the County. Oil and gas production began in Kings County in the early 1900s. The petroleum reserves are located within Tertiary sedimentary rocks of the San Joaquin, Temblor, and Kreyenhagen formations. The principal active petroleum resource fields include the Pyramid Hills, Kettleman Middle and North Dome, Tulare Lake oil fields, and the Harvester gas field. The Dudley Ridge and Northwest Trico gas fields have been abandoned. The active and abandoned fields contain numerous active, idle and abandoned oil and gas wells, and abandoned non-producing ("dry")



California's Landslide Hazards

Figure 4.6-5

Source: County of Kings, 2009.

exploratory wells. In addition, numerous abandoned dry wells are located outside the boundaries of the fields. The California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) maintains records of the location and details of construction and abandonment of all oil and gas wells. Although significant volumes of oil and gas have been produced, production has been in decline within the County for the last 30 years.

g. Regulatory Setting. The County's Health and Safety Element, the Kings County Multi-Jurisdiction Multi-Hazard Mitigation Plan (HMP), and the California Building Code (CBC) include measures to protect lives, health, property and public welfare. The County's Health and Safety Element is intended to relate County land use policies to local safety planning and contains policies for determining acceptable levels of public risk imposed by these land uses, as well as policies for mitigating the effects of natural or manmade catastrophes. The Element incorporates the HMP and implements the policy recommendations for the County's area of responsibility as guiding policies in dealing with natural disasters.

To offset the devastating affects of natural hazards, the HMP was developed under the guidance of the Kings County Fire Department/Kings County Emergency Operations staff and the consulting firm "amec". The overall purpose of the HMP was to reduce natural hazard vulnerability and make the communities of Kings County more disaster resistant and sustainable. Development of the HMP involved Kings County, the four incorporated Cities (Avenal, Corcoran, Hanford, and Lemoore), and several special districts.

The CBC is the regulatory environment for design and construction of building codes and standards covering state and federal land use and environmental regulations which are developed specifically for the purpose of regulating the life safety, health, and welfare of the public.

4.6.2 Impact Analysis

a. Methodology and Significance Thresholds. The General Plan Update would result in potentially significant impacts if development facilitated by the General Plan would result in any of the following conditions without providing a mechanism to address potential site-specific impacts:

- *Exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, including liquefaction, or landslides;*
- *Substantial soil erosion or the loss of topsoil;*
- *Loss of a unique geologic feature;*
- *Location of development on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse; or*
- *Location of development on expansive soil, creating substantial risks to life or property*

b. Project and Cumulative Impacts.

Impact GEO-1 Future seismic events could produce ground shaking within Kings County area that could damage structures and/or create adverse health and safety effects. However, with the implementation of draft General Plan policies and required building codes, impacts would be Class III, *less than significant*.

In populated areas, the greatest potential for loss of life and property damage from a powerful earthquake can be a direct result of ground shaking. The degree of damage depends on many interrelated factors, including magnitude, focal depth, distance from fault, duration of shaking, type of surface, ground water depth, topography, and quality of buildings. Since new structures can be designed and built to withstand probable shaking without collapse, the greatest existing danger relating to geological events is the continued use of older structures incapable of withstanding earthquake forces. Wood frame structures of two stories or less constructed prior to 1948 can be considered safe, while buildings constructed prior to 1948 of other materials should be considered suspect[1]. In all cases, unreinforced masonry structures should be considered unsafe.

Damage and injury resulting from geologic hazards can be reduced to acceptable levels through zoning and building permit review procedures and construction standards. New construction conforming to the standards of the California Building Code (CBC) will provide adequate protection. Dams, schools, and hospitals are more stringently regulated by state and federal agencies for protection against such hazards. It should be noted that the purpose of the earthquake provisions of the CBC is to prevent loss of life, not to prevent structural damage.

Kings County does not have major fault systems within its boundaries; however, the San Andreas Fault is about four miles west of the Kings County line. The primary hazard due to seismic activity in Kings County would come from ground shaking, with the potential varying from 20-30% g in the northeast third of the County, including the cities of Hanford, Lemoore, Corcoran, and the Santa Rosa Rancheria to 3-40% g in the central part of the County, which is primarily agricultural. Earthquake hazards area more severe in the southeast third of the County and in the City of Avenal, with the potential for ground shaking in this area ranging from 40-50% g to 70-80% g at the southwester County line.

Valley Zones (V1 through V4), represents areas along the valley floor with highest near-surface amplification identified along the west and decreasing towards the east due to the damping of thick alluvial sediments. Coast Ranges Zones (C1 and C2) represent the Kettleman Hills and Coast Range areas that are closest to the San Andreas Fault, which are anticipated to experience moderately high ground shaking levels. The safest zones correspond generally to the areas of greatest population within the County. Zone V1, the area of least expected seismic shaking, encompasses the cities of Hanford and Lemoore, communities of Armona, Home Garden and Stratford, and Naval Air Station Lemoore residential areas and Santa Rosa Rancheria. Zone V2

[1] *In 1948, earthquake regulations were adopted as a legally binding section of the UBC for the first time. Previously, earthquake standards were set forth in the Appendix of the UBC and were not a mandated part of the Code. It is more likely then, that a building constructed before 1948 would be less able to withstand the shock of an earthquake than one built after 1948.*

contains the City of Corcoran. Kettleman City and Avenal, however, are located within Zone V4 and adjacent to more critical Coast Range Zones.

The geologic hazards in Kings County are most acute for the City of Avenal and the community of Kettleman City due to the presence of the San Andreas Fault along the southwestern border of the County. Data from the Federal Emergency Management Agency's HAZUS (computer hazard estimation modeling tool) presented in the HMP predicts estimated losses countywide for all jurisdictions for two different earthquake scenarios. The model predicts building losses will be highest in manufactured housing, which may be an important consideration for the County's housing rehabilitation programs in unincorporated areas. There are less than 10 unreinforced masonry buildings in the unincorporated County and none of these exist within Seismic Zone V4.

New development within the County would conform to the CBC as required by law. Although nothing can ensure that structures do not fail under seismic stress, proper engineering, including compliance with the CBC, can minimize the risk to life and property, resulting in a less than significant impact to new development from groundshaking.

General Plan Policies which Reduce Impacts. The *2035 General Plan Health and Safety Element* includes the following policies intended to minimize the risks associated with seismic related hazards:

HS Policy A1.3.1 *Implement natural hazards review criteria for new development that is based upon information provided in the Natural Hazards Section of the Health and Safety Element to improve long term loss prevention.*

HS Policy A1.4.1 *Implement the current California Building Codes and any subsequent amendments as contained within California Code of Regulations Title 24 to improve disaster resistance of future buildings.*

HS Policy A2.1.1 *Maintain and enforce current building codes and standards to reduce the potential for structural failure caused by ground shaking and other geologic hazards.*

HS Policy A2.1.2 *Use the 1997 Uniform Code for the Abatement of Dangerous Buildings of a non-residential nature, and the 1997 Uniform Housing Code to assess unsafe residential structures and ensure their safe construction and rehabilitation.*

HS Policy A2.1.3 *Prohibit new construction along known fault zones, and limit uses to nonstructural land uses.*

HS Policy A2.1.4 *Review all development proposals to determine whether a geotechnical soils report is required for new construction.*

HS Policy A2.1.5 *Consider the environmental review process for land use projects seismic hazards, including subsidence, liquefaction, flooding, local soils, and geologic conditions.*

HS Policy A2.1.6 *Require agriculture or open space land uses around areas identified as engaging in potentially hazardous activities to serve as a buffer that reduces possible personal or property damage resulting from an earthquake.*

Mitigation Measures. No additional mitigation measures are required beyond compliance with applicable proposed General Plan policies and provisions of the CBC.

Significance After Mitigation. Impacts would be less than significant with implementation of the CBC requirements and polices contained in the Health and Safety Element.

Impact GEO-2 Future seismic events could result in liquefaction of soils in portions of the County area. Development in these areas could be subject to liquefaction hazards. However, the risk and danger of liquefaction and subsidence occurring within the County is considered to be minimal. With implementation of proposed General Plan policies and required building codes, impacts would be Class III, *less than significant*.

The risk and danger of liquefaction and subsidence occurring within the County is considered to be minimal. However, as detailed in Figure 4.6-4, Zones V4, C1, and C2 would likely experience the greatest ground shaking. Consideration of future development proposals in areas of potential liquefaction should place primary emphasis upon communicating to developers the findings of the Five County Seismic Safety Element and studies performed by the U.S. Geological Survey. The problem of potential liquefaction should be handled on a site-by-site basis by a licensed soils engineer.

General Plan Policies which Reduce Impacts. Refer to the applicable *2035 General Plan Health and Safety Element* policies described under Impact GEO-1.

Mitigation Measures. Compliance with the CBC and applicable policies of the Health and Safety Element, including Policy HS Policy A2.1.5, would ensure that impacts would be less than significant.

Significance After Mitigation. Impacts would be less than significant with implementation of the CBC requirements and polices contained in the *Health and Safety Element*.

Impact GEO-3 Kings County has very "Low" to "Moderate" risk landslide areas and a small portion of land that is rated to have "High" landslide incident probability. Landslides have the potential to damage and destroy structures, roadways and other improvements as well as to deflect and block drainage channels, causing further damage and erosion. Compliance with the CBC would generally address landslide hazards. However, because the draft General Plan does not include specific requirements to address landslide hazards, impacts would be Class II, *significant but mitigable*.

Kings County has very "Low" to "Moderate" risk landslide areas located in remote uninhabited sections of southwest Kings County. Figure 4.6-5 depicts where territories throughout the State, including Kings County, may be susceptible to landslides. Those areas potentially susceptible to landslides within Kings County are nearly all defined as having "Low" (less than 1.5 percent of area involved) and "Moderate" potential (1.5 to 15 percent of area involved) for landslide incident. A smaller portion of land within the Coast Ranges, along the southwest corner of the County, is the only area rated to have "High" (Greater than 15 percent of area involved) landslide incident probability. This portion of the county is designated for Agricultural and Natural Resource Conservation land uses and therefore not likely to result in any dense population or development.

Slope instability may result in landslides, mudslides, or debris flows that can cause substantial damage and disruption to buildings and infrastructure. Impacts from these types of soil hazards are generally reduced to less than significant levels by the standard development review process. Standard building and grading procedures would mitigate most soil hazards. Geotechnical engineering of any landslide areas would be necessary to ensure that slopes would not become destabilized during grading activities. Onsite soil investigations identify local hazard conditions, which are then mitigated through implementation of appropriate construction techniques and through proper siting improvements.

In general, the primary remedial measure to be employed during grading is the removal of the slump or debris slide from the top to the toe. The potential for destabilization or activation of mass wastage areas increases with an increase in the amount of proposed earthwork. Debris flows typically form in response to local intense rainfall in steep swale areas that are filled with saturated, fine-grained soils. Portions of the plan area, because of their relatively steep topography, are considered to have a moderate debris flow potential.

General Plan Policies which Reduce Impacts. Refer to the applicable *2035 General Plan Health and Safety Element* policies described under Impact GEO-1.

Mitigation Measures. Compliance with the CBC and applicable policies of the Health and Safety Element, including Policy HS Policy A2.1.5 would ensure that impacts would be less than significant.

Significance After Mitigation. Impacts would be less than significant with implementation of the CBC requirements and polices contained in the *Health and Safety Element*.

Impact GEO-4 Expansive soil conditions could result in foundation and building distress problems and cracking of concrete slabs. However, implementation of draft General Plan policies would reduce impacts relating to soil expansion to a Class III, *less than significant*, level.

Expansive soils exhibit clay like characteristics and swell when wetted and shrink when dried. Wetting can occur naturally in a number of ways, (e.g., absorption from the air, rainfall, groundwater fluctuations, lawn watering and broken water or sewer lines). In hillside areas, as expansive soils expand and contract, gradual downslope creep may occur, eventually causing landsliding. Clay soils also retain water and may act as lubricated slippage planes between

other soil/rock strata, also producing landslides, often during earthquakes or by unusually moist conditions. The shrink-swell characteristics of soils can vary widely within short distances, depending on the relative amount and type of clay. Expansive soils are also often prone to erosion. Foundations of structures placed on expansive soils may swell during the wet season and shrink during the succeeding dry season, potentially resulting in foundation damage.

Detailed geologic studies are required prior to development to evaluate the potential for geologic and soil hazards, including expansive soils, and these conditions must be minimized or corrected during construction. The analysis would provide recommendations to prepare sites for development to avoid the hazards associated with expansive soils. Typical measures to treat expansive soils involve removal, proper fill selection, and compaction. Expansion should not be a substantial constraint to development of individual sites provided that adequate soil and foundation studies are performed prior to construction and that CBC guidelines are followed. Therefore, impacts would be less than significant.

General Plan Policies which Reduce Impacts. Refer to the applicable *2035 General Plan Health and Safety Element* policies described under Impact GEO-1.

Mitigation Measures. Compliance with the CBC and applicable policies of the Health and Safety Element, including Policy HS Policy A2.1.5 would ensure that impacts would be less than significant.

Significance After Mitigation. Impacts would be less than significant with implementation of the CBC requirements and polices contained in the *Health and Safety Element*.

Impact GEO-5 Radon is a contaminant that affects indoor air quality. Radon gas from natural sources can accumulate in buildings and reportedly is the second most frequent cause of lung cancer, after cigarette smoking. However, compliance with the CBC and applicable policies of the proposed Health and Safety Element would ensure that impacts would be Class III, *less than significant*.

The potential for radon gas exposure could result in significant impacts to new development in areas prone to radon gas. A radon gas survey prior to development should be performed to evaluate the potential for radon gas hazards. The analysis provides recommendations to prepare the site for development to avoid the hazards associated with radon gas. Typical measures to treat soils during construction involve non-permeable barriers and proper ventilation. Large-scale radon gas exposure would not be likely, and would not result in a significant impact, provided that adequate soils and foundation studies are performed prior to construction and that Building Code guidelines are followed.

General Plan Policies which Reduce Impacts. Refer to the applicable *2035 General Plan Health and Safety Element* policies described under Impact GEO-1.

Mitigation Measures. Compliance with the CBC would ensure that impacts would be less than significant. Therefore, mitigation is not required.

Significance After Mitigation. Impacts related to radon gas would be less than significant level following compliance with the CBC.

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4.7 HAZARDS and HAZARDOUS MATERIALS

This section analyzes the impacts associated with exposure to hazards and hazardous materials. Impacts relating to hazardous materials use or development on contaminated sites, transportation of hazardous materials, exposure to wildland fire hazards and airport safety hazards are addressed. Geological and hydrological hazards are described in Sections 4.6, *Geology*, and 4.8, *Hydrology and Water Quality*, of this EIR, respectively.

4.7.1 Setting

a. Hazardous Materials. The federal government defines a hazardous material as a substance that is toxic, flammable/ignitable, reactive, or corrosive. Extremely hazardous materials are substances that show high or chronic toxicity, carcinogenic, bioaccumulative properties, persistence in the environment, or that are water reactive. Improper use, storage, transport, and disposal of hazardous materials and waste may result in harm to humans, surface and groundwater degradation, air pollution, fire, and explosion. The risk of hazardous material exposure can come from a range of sources; these may include household uses, agricultural/commercial/industrial uses, transportation of hazardous materials, and abandoned industrial sites known as brownfields.

Use, Storage, and Handling of Hazardous Materials. Numerous federal, state, and local regulations regarding use, storage, transportation, handling, processing and disposal of hazardous materials and waste have been adopted since the passage of the federal Resource Conservation and Recovery Act (RCRA) of 1976. The goal of RCRA is to assure adequate tracking of hazardous materials from generation to proper disposal. California Fire Codes (CFC) Articles 79, 80 et al., which augment RCRA, are the primary regulatory guidelines used to govern the storage and use of hazardous materials. The CFC also serves as the principal enforcement document from which corresponding violations are written.

Hazardous substances include both hazardous wastes and hazardous materials. In general, a material or waste is classified as hazardous if it is one of more than 700 chemicals specifically listed in the California Code of Regulations; if it contains one of these chemicals; or if it is reactive, ignitable, corrosive, or toxic. Because of their potential threat to public health and the environment, hazardous substances are closely regulated by federal, state, and local laws that focus on controlling their production, handling, storage, transportation, and disposal.

Federal and state environmental laws provide that all property owners be required to pay for cleanup, when necessary, of contamination by hazardous materials on or originating from their land. Because of the potential liability, purchasers or developers of commercial, industrial, or agricultural property should perform environmental assessments before development or purchase. In addition to being liable for cleanup, the owner can be responsible for toxic effects on human health, and measures should be taken to avoid exposing people to hazardous materials.

Pursuant to SB 1082 (1993), the State of California adopted regulations to consolidate six hazardous materials management programs under a single, local agency, known as the

Certified Unified Program Agency (CUPA). In addition to conducting annual facility inspections, the Hazardous Materials Program is involved with hazardous materials emergency response, investigation of the illegal disposal of hazardous waste, public complaints, and storm water illicit discharge inspections. In July 1996, the County Division of Environmental Health Services (EHS) was approved by the California Environmental Protection Agency (CalEPA) as the CUPA for Kings County. Accordingly, EHS compiles and maintains the Hazardous Materials Business Plan database, which is a list of businesses that meet the threshold criteria for use, storage, or disposal of hazardous materials, compressed gases and/or hazardous waste. Threshold quantities are defined as hazardous materials equal to or exceeding 55 gallons or 500 pounds, 200 cubic feet of compressed gas, and/or hazardous waste in any amount.

Household Products. By far the most common hazardous materials are those found or used in the home. Waste oil is a common hazardous material that is often improperly disposed of and can contaminate surface water through runoff. Other household hazardous wastes (used paint, pesticides, cleaning products and other chemicals) are common and often improperly stored in garages and homes throughout the community. To keep household hazardous wastes out of the municipal waste stream and promote proper disposal of hazardous wastes, the Kings Waste & Recycling Authority maintains a permanent Household Hazardous Waste facility adjacent to the Materials Recovery Facility at 7803 Hanford-Armona Road in Hanford. In addition, the Kings Waste & Recycling Authority also sponsors temporary household hazardous waste collection events at various locations in the County (Kings County Division of Environmental Health Services website, 2009).

Commercial and Industrial Uses. Users of hazardous materials include commercial manufacturing, petroleum exploration, industrial fabrication, biotechnology, and agribusinesses. Potentially hazardous materials used by businesses may include petroleum based fuels, chlorinated solvents, acrylic coatings, corrosive or caustic additives, and to a lesser extent, chemical fertilizers, pesticides and herbicides. The majority of current users of hazardous materials include gas stations and other automotive service-related business, utilities, agribusinesses, and other commercial and industrial uses.

Businesses handling more than specified reportable quantities of any hazardous material are required to disclose certain information to EHS via a hazardous materials business plan. Risk Management Plans (RMPs) are required to be developed by certain businesses that handle more than a threshold quantity of certain regulated "acutely hazardous" substances (primarily toxic gasses and pesticides) under the California Accidental Release Prevention (Cal ARP) program. The purpose of the Cal ARP program is to prevent the accidental releases of regulated substances.

Gas stations and industrial activities located next to roadways in the plan area may have released hazardous materials to the environment. To determine the full extent of possible hazardous materials sources, Phase I and Phase II hazardous materials site assessments would need to be completed for suspect parcels. Such assessments are beyond the scope of this program-level analysis. The first step in identifying sources of hazardous materials is to conduct a database search of federal, state, and local agency records. A database search is the principle source of information to verify the presence of hazardous materials/wastes in the County. The results of these searches include lists of sites with known, potential, or existing

hazardous materials in a specified search area. Individual sites can occur on several lists for the same reason and are sometimes repeated under different names on the same list.

Hazardous Materials Transportation. Major access routes to Kings County include Interstate 5, and State Routes 198, 43 and 41. Other County roads such as Houston Avenue, Grangeville Boulevard, 6th Avenue, Kansas Avenue and Jackson Avenue also provide alternative access routes. The Burlington Northern Santa Fe Railroad, and the San Joaquin Valley Railroad provide railroad transport. In addition, underground pipelines transporting hazardous liquids or natural gas are found throughout the County, primarily along major transportation corridors.

Both the USEPA and the United States Department of Transportation (DOT) regulate the overall transportation of hazardous waste and material, including transport via highway and rail. The USEPA administers permitting, tracking, reporting, and operations requirements established by the RCRA. DOT regulates the transportation of hazardous materials through implementation of the Hazardous Materials Transportation Act. This Act administers container design, and labeling and driver training requirements. These established regulations are intended to track and manage the safe interstate transportation of hazardous materials and waste.

Transportation of hazardous materials on highways falls under federal legislation; however, authority is delegated to various state and local agencies that are focused on specific aspects of hazardous materials and transportation. The Hazardous Waste Control Act establishes the California Department of Health Services (DHS) as the lead agency in charge of the implementation of the RCRA program. State and local agencies such as the CHP, State of California Department of Transportation (Caltrans), and the City and County Fire Departments are responsible for the enforcement of state and federal regulations and responding to hazardous materials transporting emergencies. The CHP establishes state and federal hazardous material truck routes and has lead responsibility over hazardous material spills on State highways.

Soil Contamination. Regulatory agencies such as the USEPA, Department of Toxic Substance Control, and Department of Environmental Health Hazard Assessment set forth guidelines that list at what point concentrations of certain contaminants pose a risk to human health. The USEPA combines current toxicity values of contaminants with exposure factors to estimate the maximum concentration of a contaminant that can be in environmental media before it is a risk to human health. These concentrations set forth by the USEPA are termed Preliminary Remediation Goals (PRGs) for various pollutants in soil, air, and tap water. PRG concentrations can be used to screen pollutants in environmental media, trigger further investigation, and provide an initial cleanup goal. PRGs for soil contamination have been developed for industrial sites and residential sites. Residential PRGs are more conservative and take into account the possibility of the contaminated environmental media coming into contact with sensitive receptor sites such as nurseries and schools. PRGs consider exposure to pollutants by means of ingestion, dermal contact, and inhalation, but do not consider impacts to groundwater.

Groundwater Contamination. Both the USEPA and the California DHS regulate the concentration of various chemicals in drinking water. The California DHS thresholds are

generally stricter than the USEPA thresholds. Primary maximum contaminant levels (MCLs) are established for a number of chemical and radioactive contaminants (Title 22, Division 4, Chapter 15 California Code of Regulations). MCLs are often used by regulatory agencies to determine cleanup standards when groundwater is affected with contaminants.

Brownfield Sites. Brownfield sites are areas with actual or perceived contamination and that may have potential for redevelopment or reuse. Brownfields are often former industrial facilities that were once the source of jobs and economic benefits to the community, but lie abandoned due to fears about contamination and potential liability. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, was enacted by Congress on December 11, 1980. This law created a tax on the chemical and petroleum industries and provided broad Federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. Over five years, $1.6 billion was collected and the tax went into a fund for cleaning up abandoned or uncontrolled hazardous waste sites. CERCLA was amended in January of 2002 with passage of the Small Business Liability Relief and Brownfields Revitalization Act. This Act provides some relief for small businesses from liability under CERCLA. It authorizes $200 million per fiscal year through 2006 to provide financial assistance for brownfield revitalization. CERCLA also facilitated a revision of the National Contingency Plan (NCP), which provides the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The NCP also established the generation of the USEPA's National Priorities List (NPL), a list of all the sites with known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States. According to the NPL database, there are no Superfund sites within Kings County, (http://www.epa.gov/superfund/sites/npl/index.htm).

The State Water Resources Control Board regulates spills, leaks, investigation, and cleanup sites and maintains an online database (GeoTracker) to provide access to environmental data (http://www.geotracker.waterboards.ca.gov). The GeoTracker database tracks regulatory data about leaking underground storage tank (LUST) sites, fuel pipelines, and public drinking water supplies and presents it in a geographic information system format. GeoTracker contains 370 records for Kings County. The database indicates that there are 81 Permitted USTs, 155 LUST Cleanup Sites, 59 Military Cleanup Sites, 35 Land Disposal Sites, and 40 Cleanup Program Sites within Kings County. Over half of these records indicate that the sites are open, or undergoing site assessment, remediation, or monitoring. The majority of these open cases are associated with gas stations or other automotive service related uses, mini-markets, warehouses or industrial sites.

The California Department of Toxic Substances Control also maintains a list of cleanup sites and hazardous waste permitted facilities on their EnviroStor database, located at http://www.envirostor.dtsc.ca.gov/public/. The EnviroStor database has 11 records for Kings County, five of which are active. Three of these active sites contain soil or groundwater contamination resulting from fertilizer production, pesticide manufacturing, and natural gas manufacturing activities. Another active site at the Naval Air Station Lemoore (NAS Lemoore) contains soil, groundwater and indoor air contamination. The remaining active site is the Kettleman City Landfill, which is discussed below.

Landfills. Landfills are classified by their permitted contents. Class I landfills are permitted to accept toxic or hazardous substances. Class II landfills are permitted to accept chemically or biologically decomposable substances. Class III landfills are permitted to accept non-water soluble, non-decomposable inert solids. As part of this analysis, a review of the California Integrated Waste Management Board's (CIWMB's) searchable Solid Waste Information System (SWIS) database was completed for the County. The SWIS database tracks regulatory information on solid waste facilities, operations, and disposal sites throughout the State of California. The database includes information on landfills, transfer stations, material recovery facilities, composting sites, transformation facilities, waste tire sites, and closed disposal sites. The database tracks regulatory information regarding the site location, owner, operator, the facility type, operational status, regulatory enforcement records, and inspections. The SWIS database contains 20 records for Kings County, 11 of which are closed. Of the remaining sites, seven are active and two are planned, as described below:

- *Avenal Regional Landfill* – SWIS No. 16-AA-0004; located at 201 North Hydril Road in the City of Avenal; status: active; class: III; accepted wastes include: agricultural, construction/demolition, dead animals, industrial, inert, mixed municipal.
- *Kings Waste & Recycling Authority Material Recovery Facility* – SWIS No. 16-AA-0015; located at 7803 Hanford-Armona Road in Hanford; status: active; class: III; accepted wastes include: agricultural, construction/demolition, industrial, mixed municipal, tires, wood waste, other designated.
- *Kings Waste & Recycling Authority Composting Facility* – SWIS No. 16-AA-0016; located at 7803 Hanford-Armona Road in Hanford; status: active; accepted wastes include: agricultural, construction/demolition, green materials, wood waste.
- *Chemical Waste Management, Inc., Kettleman Hills Facility (B-19)* – SWIS No. 16-AA-0021; located at: 35251 Old Skyline Road in Kettleman City; status: active; class II/III; accepted wastes include: mixed municipal, dead animals, industrial, other designated, sludge (biosolids). This facility is an old cell that is being turned into a bioreactor.
- *Chemical Waste Management, Inc., Kettleman Hills Facility (B-18)* - SWIS No. 16-AA-0023; located at: 35251 Old Skyline Road in Kettleman City; status: active; class: I/II; accepted wastes include: contaminated soil and industrial.
- *Chemical Waste Management, Inc., Kettleman Hills Facility (B-17)* - SWIS No. 16-AA-0027; new cell located at: 35251 Old Skyline Road in Kettleman City; status: active; class: II/III; accepted wastes include: mixed municipal.
- *Kochergen Farms Composting* - SWIS No. 16-AA-0022; located at: Avenal Cutoff Road and Omaha Avenue in the City of Avenal; status: active; accepted wastes include: food wastes and green materials.
- *Mustang Hill Landfill* – SWIS No. 16-AA-0013; located at 29703 Milham Road in Kettleman City; status: planned; accepted wastes include: mixed municipal, industrial, sludge (biosolids).
- *Westlake Farms Co-Composting Facility* - SWIS No. 16-AA-0026; located at: north of Utica and 23rd Avenue in Kettleman City; status: planned; accepted wastes include: agricultural, green materials, manure, sludge (biosolids), wood waste.

The Chemical Waste Management, Inc., Kettleman Hills Facility (KHF) is a commercial hazardous waste treatment, storage and disposal facility. KHF consists of 1,600 contiguous acres, 499 of which have been approved for hazardous waste activity. The facility accepts virtually all solid, semi-solid, and liquid hazardous and extremely hazardous wastes. It may not accept class A explosives, compressed gases, radioactive materials, biological agents, or infectious wastes. (California Department of Toxic Substances Control EnviroStor database, accessed January 2009)

Asbestos. Asbestos is a highly crumbly material often found in older buildings (typically pre-1979), typically used as insulation in walls or ceilings. It was formerly popular as an insulating material; however, it can pose a health risk when very small particles become airborne. In conformance with the Clean Air Act, the USEPA established the National Emissions Standards for Hazardous Air Pollutants (NESHAP) to protect the public. Under NESHAP, the Toxic Substances Control Act banned most spray-applied surfacing materials that contain asbestos beginning in 1973 as well as fireproofing or insulation for decorative purposes since 1978. The asbestos regulations under NESHAP control work practices during the demolition and renovation of institutional, commercial, or industrial structures. Following identification of friable asbestos, the Federal Occupational Safety and Health Administration (OSHA) requires that asbestos trained and certified abatement personnel perform asbestos abatement and all asbestos containing material (ACM) removed from on-site structures shall be hauled to a licensed receiving facility and disposed of under proper manifest by a transportation company certified to handle asbestos.

Lead-Based Paint. Prior to the enactment of federal regulations limiting their use in the late 1970s, lead-based paint (LBP) was often used in residential construction. Lead is a highly toxic metal that was used for many years in products found in and around homes. Lead may cause a range of health effects, from behavioral problems and learning disabilities, to seizures and death. The primary source of lead exposure in residences is deteriorating LBP. Lead dust can form when LBP is dry scraped, dry sanded, or heated. Dust also forms when painted surfaces bump or rub together. LBP that is in good condition is usually not a hazard. Regulations for LBP are contained in the Lead-Based Paint Elimination Final Rule 24 CFR 33, governed by the U.S. Housing and Urban Development (HUD), requires sellers and lessors to disclose known LBP and LBP hazards to perspective purchasers and lessees. Additionally, all LBP abatement activities must be in compliance with California and Federal OSHA, and with the State of California DHS requirements. Only LBP trained and certified abatement personnel are allowed to perform abatement activities. All LBP removed from structures must be hauled and disposed of by a transportation company licensed to transport this type of material. In addition, the lead contaminated material must be taken to a landfill or receiving facility licensed to accept the waste.

Agricultural Pesticide Regulation. A variety of chemicals are used on agricultural crops in the Plan Area. A variety of pesticides, fungicides and herbicides are used in the cultivation of row crops. Some pesticides and herbicides are injected into the soil as fumigants, while fungicides are generally sprayed by crop dusters. The CalEPA's Department of Pesticide Regulations establishes regulations regarding agricultural chemical use. These regulations are designed to prevent pesticides from being used in such a way as to jeopardize or cause injury to

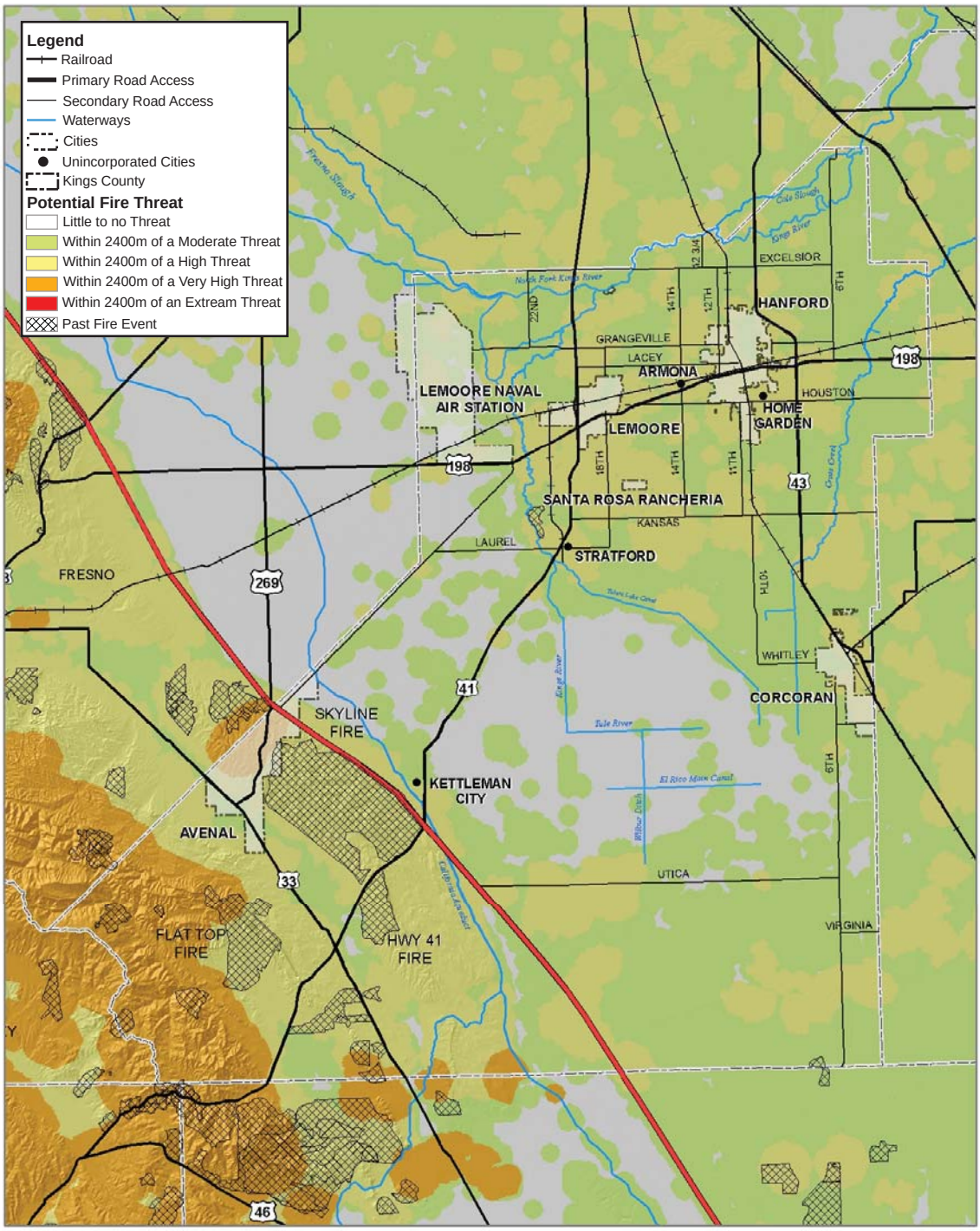
others. Among these regulations is Section 6614 from Title 3 of the California Code of Regulations, which is included in part as follows:

> *(b) Notwithstanding that substantial drift will be prevented, no pesticide application shall be made or continued when:*
> *(1) There is a reasonable possibility of contamination of the bodies or clothing of persons not involved in the application process;*
> *(2) There is a reasonable possibility of damage to non-target crops, animals, or other public or private property;*
> *(3) There is a reasonable possibility of contamination of non-target public or private property, including the creation of a health hazard, preventing normal use of such property.*

b. Wildfire Hazards. The California Department of Forestry and Fire Protection (CalFire) is responsible for identifying the governmental agencies responsible for preventing and suppressing fires in all areas of the state. Within the county, this responsibility is shared between the City, County, State, and NAS Lemoore Fire Departments. Impacts related to the provision of fire protection services are addressed in Section 4.12, *Public Services*.

Generally, fire season in Kings County extends from early spring to late fall. Onset can happen suddenly due to lightning or human causes and wildfires can last from a few hours to a few months. Secondary effects from wildfire include increased erosion, degraded air and water quality, and economic impacts from burned landscapes. Determination of wildland fire hazards is based on three major factors: fuel loading, weather conditions, and topography. In most of Kings County, CalFire ranks fuel loading as low fuel hazards, where fuels are mainly crops and grasses. In the southwest corner, there are some brush, pine, and grass fuels, which are ranked as moderate fuel hazards, primarily in the area west of Interstate 5 and north of State Route 41. Vacant parcels where dry weeds are permitted to accumulate are a fire hazard, but grain crops, such as oats and barley, are also at high risk since they are harvested in a dry state during the peak fire season (Kings County Multi-Jurisdictional Multi-Hazard Mitigation Plan, 2007). Figure 4.7-1 illustrates the wildfire hazard severity zones within the County.

c. Airport Safety Hazards. The NAS Lemoore located in northwestern Kings County has a Military Influence Area that covers most of the northwest portion of the County. Only two airports within the County are identified for public use, the Hanford Municipal Airport and the Corcoran Airport. Other private airports and airstrips exist throughout the County; however, these are primarily agriculture related crop duster landing and maintenance facilities. The Federal Aviation Administration requires runway protection zones and height limits on structures near airports to reduce risks to the public. In addition, the Kings County Airport Land Use Compatibility Plan (ALUCP) designates safety zones for the areas surrounding these airports, as illustrated in Figures 4.7-2 and 4.7-3. The ALUCP establishes procedures and criteria by which the County, along with the Cities of Hanford and Corcoran, can address safety and compatibility issues when making land use decisions within the operational areas of public use airports. The ALUCP safety zones are summarized in Table 4.7-1.



Base map source: AMEC, 2007 and County of Kings, 2009.

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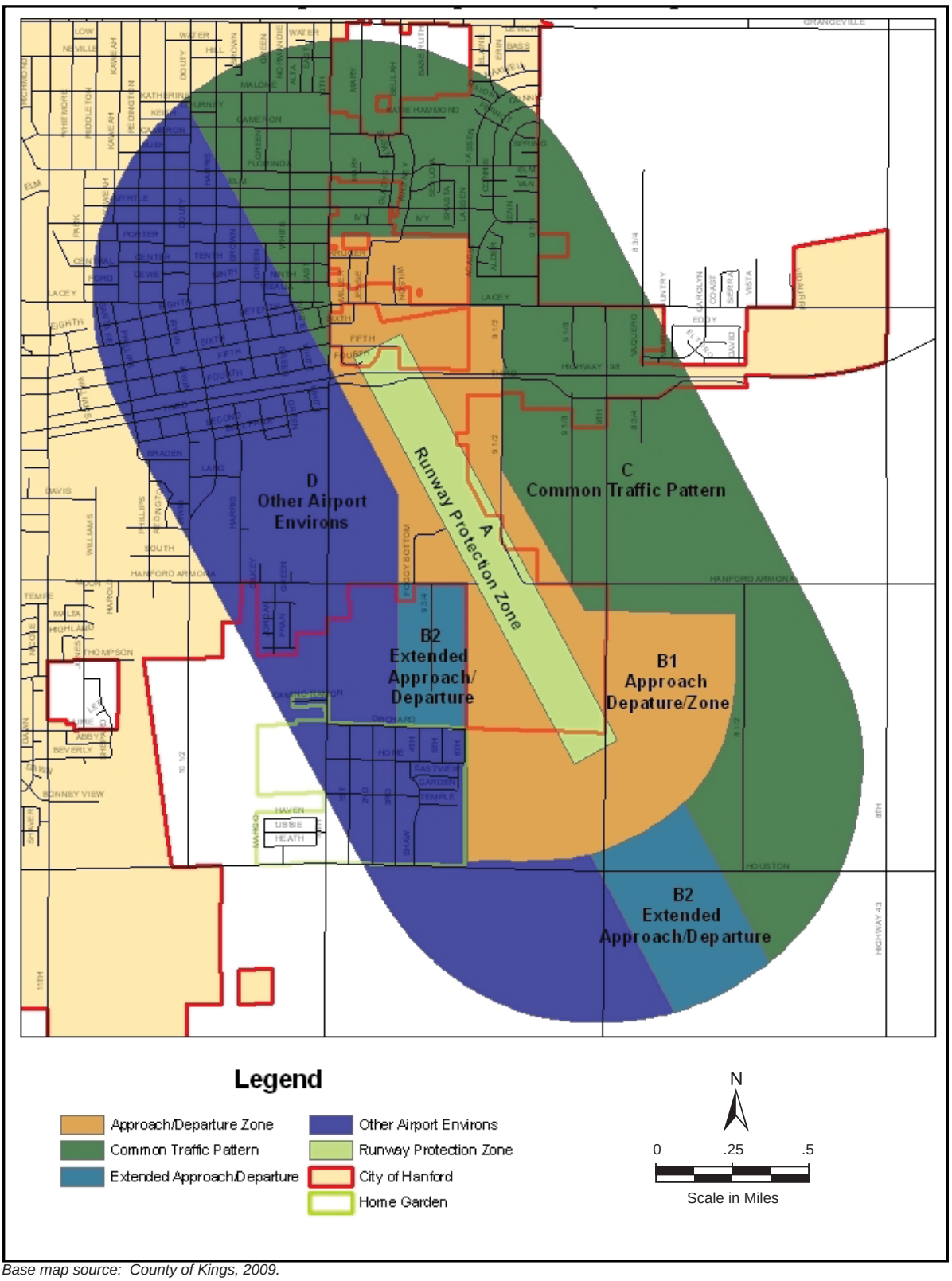
0 4.5 9

Scale in Miles

Kings County Wildfire Hazards

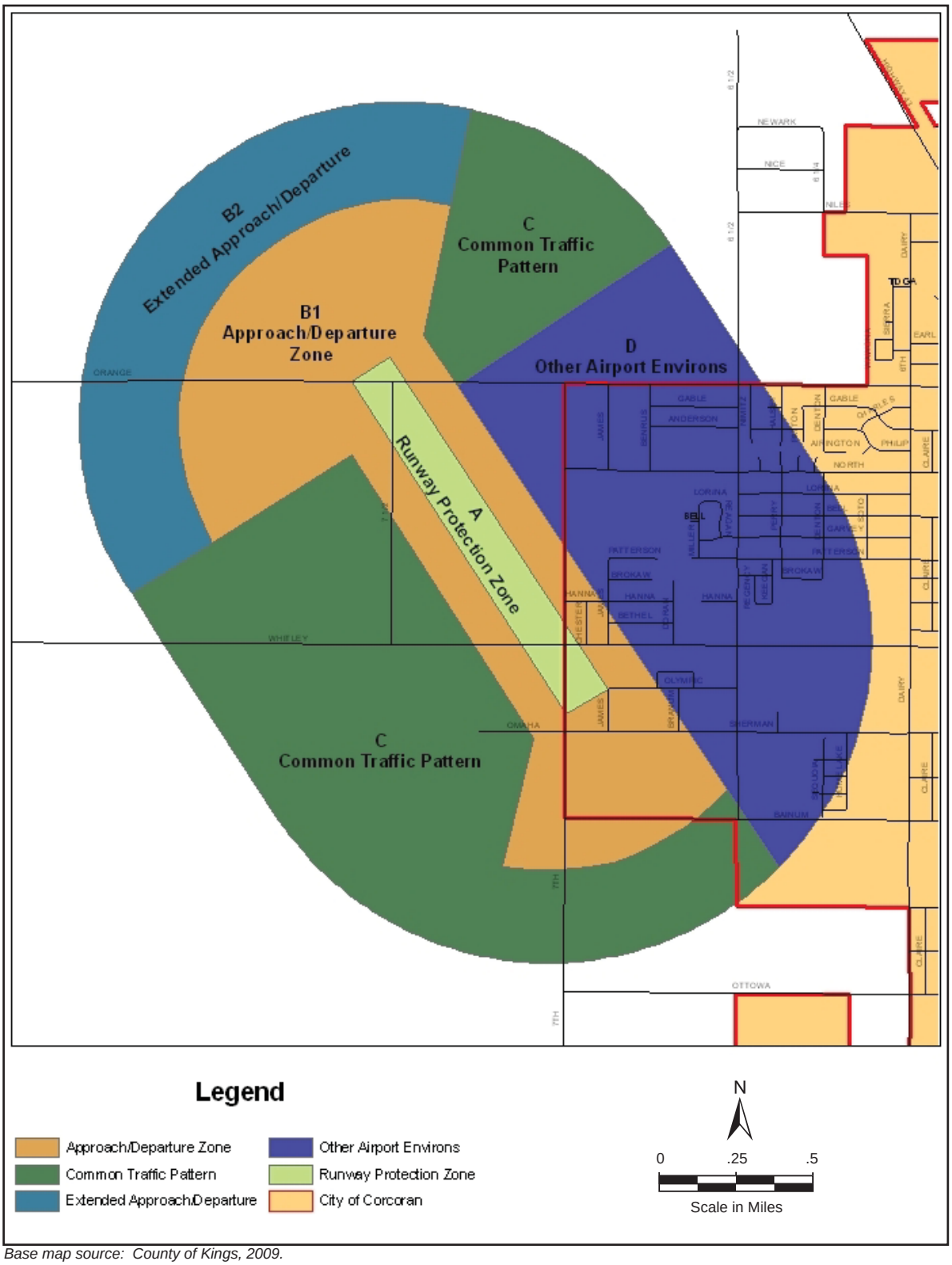
Figure 4.7-1



Base map source: County of Kings, 2009.

Hanford Municipal Airport
Compatibility Map

Figure 4.7-2



Base map source: County of Kings, 2009.

Corcoran Airport
Compatibility Map

Figure 4.7-3

Table 4.7-1. Airport Land Use Compatibility Zones

Zone	Location	Impact Elements
A	Runway Protection Zone or Within Building Restriction Line	• High Risk • High Noise Levels
B1	Approach/Departure Zone and Adjacent to Runway	• Substantial risk – aircraft commonly below 400 ft. AGL or within 1,000 ft. of runway • Substantial Noise
B2	Extended Approach/Departure Zone	• Moderate risk – aircraft commonly below 800 ft. AGL • Significant Noise
C	Common Traffic Pattern	• Limited risk – aircraft at or below 1,000 ft AGL • Frequent Noise Intrusion
D	Other Airport Environs	• Negligible risk • Potential for annoyance from overflights

Source: 2035 Kings County General Plan Health and Safety Element

4.7.2 Impact Analysis

a. Methodology and Thresholds of Significance. For the purpose of this analysis, a significant impact would occur if physical changes that could be facilitated by buildout of the 2035 General Plan would result in the following conditions, listed in Appendix G of the CEQA Guidelines, without providing a mechanism to address potential site-specific impacts:

- *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;*
- *Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;*
- *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school;*
- *Be located on a site included on a list of hazardous material sites compiled pursuant to State Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;*
- *Result in a safety hazard for people residing or working in the project area, if the project is located within an airport land use plan or in the vicinity of a private airstrip;*
- *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or*
- *Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.*

b. Project and Cumulative Impacts.

Impact HAZ–1 Potential development that could be facilitated near known hazardous material users, construction in areas with existing hazardous materials, or accidental releases of hazardous materials during transportation could expose individuals to health risks due to soil/groundwater contamination or emission of hazardous materials into the air. This is a Class III, *less than significant* impact.

The 2035 General Plan would facilitate development (including residences) within areas where hazardous materials could be stored or used, or where previous use has resulted in contamination of the site. Development of residential uses or schools in proximity to commercial or industrial uses that use or store hazardous materials could increase the risk of exposure to harmful health effects. In addition, hazardous materials are routinely transported by trucks along the major state routes and roadways, on railways, and via pipelines throughout the County; however, transportation of such materials is highly regulated to ensure the safety of the public. Negligence during use, construction activities, or accidents involving the transport of these materials could result in the release of hazardous substances into the environment, creating an emergency situation that could be detrimental to the public or environment.

The use or storage of hazardous materials within a flood zone also poses a hazard to people and the environment, because these materials could be released during flood events. The community of Stratford is the only area of the County where development is proposed that could be susceptible to flood hazards. A more detailed discussion of countywide flood hazards can be found in Section 4.8 *Hydrology and Water Quality.*

Older structures throughout the County could potentially contain asbestos containing materials (ACM) and/or lead-based paint (LBP). If demolition of these structures occurred, ACM or LBP could be released, resulting in adverse health effects. To prevent health risks to occupants or construction workers, proper ACM and LBP abatement and disposal procedures, described in the regulatory setting section above, are required to be undertaken whenever the demolition is considered for structures that were built prior to 1979.

The *2035 General Plan Health and Safety Element*, and the *Stratford Community Plan* contain several policies that would protect County residents and the environment from exposure to hazardous materials. In addition to these policies, compliance with existing hazardous materials transportation, storage and disposal regulations as well as continuing participation and maintenance of the Countywide emergency response systems would reduce impacts related to hazardous material upset risk to a less than significant level.

General Plan Policies which Reduce Impacts. The *2035 General Plan Health and Safety Element* includes the following policies, the implementation of which would mitigate potential hazardous materials risks.

HS Objective B1.5 *Ensure adequate protection of County residents from new generations of toxic or hazardous waste substances.*

HS Policy B1.5.1 *Evaluate development applications to determine the potential for hazardous waste generation and be required to provide sufficient financial assurance that is available to the County to cover waste cleanup and/or site restoration in instances where the site has been abandoned or the business operator is unable to remove hazardous materials from the site.*

The *Stratford Community Plan* includes the following additional policies, the implementation of which would mitigate potential hazardous materials risks.

SCP Policy 7D.1.3 *Facilities using, storing, or allowing substantial quantities of hazardous materials to be stored onsite shall not be permitted within the 100-year flood zone unless, all standards for elevation, anchoring, and flood proofing are proven satisfactory to the County's Flood Protection Administrator.*

Mitigation Measures. Compliance with federal, state, and local regulations, in combination with the General Plan policies listed above would mitigate potential health risk impacts to a level of less than significant.

Significance After Mitigation. Impacts would be less than significant without mitigation.

Impact HAZ-2 Development consistent with the proposed 2035 General Plan would introduce residential land uses into areas designated as Moderate or High Wildland Fire Hazard areas. However, compliance with General Plan policies and state and local regulations would ensure Class III, *less than significant*, impacts.

Fire hazards throughout most of the County are considered moderate. In rural areas where there are large areas of dry vegetation, fewer access roads, and increased distances from fire stations, fire hazards can be much higher. Hazards in these areas can be greatly reduced by removing dry vegetation around structures and installing dependable water systems. The southern portion of the County west of State Route 33 has steep topography, and is classified as an extreme fire hazard area. Since this part of the County is isolated and contains no urban settlements, hazards to life and property are considered minimal. Dry grain crops are grown throughout the County, and are also at high risk during the peak fire season. Wildfires in these unpopulated areas can quickly spread to urbanized areas; therefore, even the developed portions of the County have some fire risk.

Future development facilitated by the 2035 General Plan would be focused in the existing communities of Armona, Home Garden, Kettleman City, and Stratford. None of these communities are included in CalFire's list of communities at risk for wildfire. To decrease the hazard of fires in developed areas of the County, property owners and new developments are required to comply with the Kings County Improvement Standards as to minimum road widths, required clearances around structures, and peakload water capacity (*2035 Kings County*

General Plan Health and Safety Element). In addition, the *2035 General Plan Health and Safety Element* states that future development proposals will be reviewed according to the Fire Hazard Map, and appropriate building standards or restrictions will apply. The 2035 General Plan proposes a Natural Resource Conservation overlay for the southwestern portion of the County, which is designated as an extreme fire hazard area. The General Plan Land Use Element states that development in this area will be subject to review by CalFire, which will ensure that impacts remain less than significant.

General Plan Policies which Reduce Impacts. The *2035 General Plan Land Use Element* and *Health and Safety Element* includes the following policies, the implementation of which would mitigate potential risk of injury or damage from wildland fires.

LU Policy A1.1.7 *All proposed permanent structures within the Coast Range Natural Resource Conservation overlay designated areas shall be directed to the California Department of Forestry for review and compliance with all State Response Area fire requirements.*

HS Objective C2.2 *Provide quality fire protection services throughout the County by the Kings County Fire Department, and Fire safety preventative measures to prevent unnecessary exposure of people and property to fire hazards in both County Local Responsibility Areas and State Responsibility Area.*

HS Policy C2.2.1 *Community planning efforts should evaluate the projected need for Fire Department personnel and equipment and necessary funding support to maintain current levels of service as community growth occurs.*

HS Policy C2.2.2 *Development proposals and code revisions shall be referred to the County Fire Department for review and comment.*

HS Policy C2.2.3 *Use the 1997 Uniform Code for the abatement of Dangerous Buildings. All new structures to be occupied shall be built to current Fire Code Standards.*

HS Policy C2.2.4 *Review development proposals according to California Department of Forestry and Fire Protection "Fire Hazard Severity Zone Maps" to determine whether a site is located within a Very High Fire Hazard Severity Zone and subject to Wildland-Urban Interface Fire Area Building Standards and defensible space requirements as adopted under Senate Bill 1595 and effective January 1, 2009.*

HS Policy C2.2.5 *Forward for review and comment all proposed structures within the State Responsibility Area to the California Department of Forestry and Fire Protection within all State Responsibility Areas.*

Mitigation Measures. Compliance with the above policies and existing regulations would reduce the risk of injury or damage from wildland fires to a less than significant level. No mitigation is required.

Significance After Mitigation. Impacts would be less than significant without mitigation.

Impact HAZ-3 Public and private airports in Kings County could create safety hazards for nearby development. Careful land use planning in adherence with proposed General Plan policies and continued coordination with the Kings County Airport Land Use Compatibility Plan would ensure Class III, *less than significant* impacts.

Most of the public safety risk created by airports is attributed to aircraft accidents in the vicinity of populated areas. Land use planning considerations can help reduce risks to the public by preventing dense residential development, schools, hospitals, or other densely populated uses that could put residents or workers in harm's way, should an accident occur.

Airport facilities in Kings County include the Hanford Municipal Airport, Corcoran Airport, NAS Lemoore, several private airstrips, and agricultural cropduster airstrips. The majority of these airstrips are located in the rural agricultural areas of the County, and would not create significant safety hazards for people living or working in the area. Only the Hanford and Corcoran Airports are designated for public use, and as such are included in the Kings County Airport Land Use Compatibility Plan (ALUCP). The ALUCP describes land use and development restrictions within the designated safety zones, as illustrated on Figures 4.7-2 and 4.7-3.

Development facilitated by the 2035 General Plan would occur primarily in and around the existing cities and four Community Plan areas of the County. The Corcoran Airport is surrounded by agricultural land, and would not impact future development. Although the Hanford Airport is located directly northeast of the Community of Home Garden, this Community is designated as "Zone D: Other Airport Environs"; therefore, the Hanford Airport poses little threat to this plan area. Development occurring north of Home Garden, within the "Urban Fringe" of the City of Hanford, would be closer to the airport and would be at greater risk. Proposed land uses on undeveloped parcels within the "B2: Extended Approach/Departure" zone include Very Low Density Residential (1 unit/acre) and Heavy Industrial. The ALUCP limits residential development in this zone to 0.5 units/acre (1 unit per 2 acres). While future development under this land use designation could conflict with the requirements of the ALUCP, the 2035 General Plan contains policies to ensure land use compatibility on a project-specific basis. The ALUCP also prevents any above-ground bulk storage of hazardous materials in Zone B2, and prohibits any other uses that may cause hazards to flights within any of the safety zones.

Of the County's airports, the NAS Lemoore occupies the largest airspace and has the greatest amount of aircraft activity. The 2035 General Plan has designated the area around the NASL as Exclusive Agriculture which serves as a public safety buffer to ensure the preservation of large and sparsely developed parcels in the area surrounding the base. While this designation has proven effective in preventing land use and safety conflicts between the base and the general public, the 2035 General Plan also contains numerous policies relating to land use in the vicinity of the NASL, that would reduce potential impacts to a less than significant level.

General Plan Policies which Reduce Impacts. The *2035 General Plan Land Use Element* and *Health and Safety Element* includes the following policies, the implementation of which would mitigate potential safety hazards.

LU Objective B6.1 *Establish Exclusive Agriculture designated areas in coordination with Naval Air Station Lemoore (NAS Lemoore) officials to serve as an open space buffer for public safety purposes that is consistent with the base's defined areas of operation.*

LU Policy B6.1.1 *Areas identified as significant to Naval Air Station Lemoore operations as defined in the base's "Encroachment Action Plan", "Airport Installation Compatible Use Zones", "Military Influence Area", or multi-agency coordinated "Joint Land Use Study" shall be designated Exclusive Agriculture.*

LU Policy B6.1.2 *Exclusive Agriculture shall be used along NAS Lemoore defined flight path corridors that exhibit levels of at least 70 dB CNEL aircraft generated noise to limit and discourage intensive agricultural and structure based land uses that may pose increased risks to inhabitants and base operations.*

HS Goal C3 *Ensure Naval Air Station Lemoore, public airports and special use heliports remain operationally effective and free from encroachment of incompatible land uses, while surrounding land use compatibility serves to protect people and property from unnecessary exposure and hazards related to aircraft.*

HS Objective C3.1 *Maintain a restricted land use buffer around the Naval Air Station Lemoore to prevent encroachment of incompatible land uses, and engage in coordinated efforts to plan for long term operations and safety.*

HS Policy C3.1.1 *Reference the Naval Air Station Lemoore (NASL) Military Operational Area (MOA) and Air Installation Compatible Use Zones (AICUZ) in establishing land use policies within three miles of the base.*

HS Policy C3.1.2 *Apply the Exclusive Agriculture as the "Agriculture for Public Safety" land use designation where NASL aircraft operations cross over County unincorporated territory and potentially pose safety hazards to people and property, and prohibit the creation of any homesite on property less than 40 acres in size. Exceptions to this policy shall include the creation of a farm home retention or transfer of title as established in Land Use Element Policy B4.3.1 and Policy B4.3.2.*

HS Policy C3.1.3 *Participate in a Joint Land Use Study with NASL to enhance coordinated land use efforts.*

HS Objective C3.2 *Increase public safety by designating an "Airport Area of Influence" around public airports and implementing the policies of the "Kings County Airport Land Use Compatibility Plan."*

HS Policy C3.2.1 *Integrate by reference the Kings County Airport Land Use Compatibility Plan, Compatibility Criteria, and associated maps and procedural policies.*

HS Policy C3.2.2 *Regulate properties adjacent to the Hanford Municipal Airport and Corcoran Airport according to the Primary Compatibility Criteria of the Health and Safety Element, and Kings County Airport Land Use Compatibility Plan maps.*

HS Policy C3.2.3 *Work with the City of Hanford and the City of Corcoran to achieve consistent city and county land use policies for areas surrounding the Hanford and Corcoran Airports.*

HS Objective C3.3 *Maintain sufficient operational area clearance for the Kings County Fire Department Heliport that serves Kings County Fire Department Search and Rescue helicopter and contracted helicopter ambulance services which are critical to emergency response and safety of people within the region.*

HS Policy C3.3.1 *Critically review new development proposals within a quarter mile of the Kings County Fire Department heliport to ensure compatibility of structures and uses with the operation of helicopters at County Fire Station No. 4.*

Mitigation Measures. Beyond compliance with existing and proposed General Plan policies, no mitigation measures are required.

Significance After Mitigation. Impacts would be less than significant without mitigation.

Impact HAZ-4 **Potential development under the 2035 General Plan will not impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan. *No Impact* (Class IV) would result.**

The Kings County Community Development Agency was part of the overall coordination effort involved in the development of the *Kings County Multi-Jurisdiction Multi-Hazard Mitigation Plan* (HMP), prepared by the Kings County Fire Department. Implementation of the HMP is a coordinated effort between the County and the four incorporated cities, in an effort to effectively deal with natural catastrophes that affect the General Plan area. The Kings County Office of Emergency Management (OEM) organizes disaster response, which is coordinated through the Kings County Fire Department. The Kings County OEM also works closely with the Governor's Office of Emergency Services to prepare for and mitigate many types of emergencies. The OEM maintains an Emergency Response Plan and establishes procedures and

operations to be carried out during and after large scale disasters such as a flood, earthquake, or major fires.

The *Health and Safety Element* of the proposed 2035 General Plan incorporates the HMP and implements the policy recommendations for the County's area of responsibility as guiding policies in dealing with natural disasters. Examples of the General Plan's role in mitigating the impacts of emergency situations is to ensure that emergency access routes are maintained and to assess the vulnerability of critical facilities in the plan area.

General Plan Policies which Reduce Impacts. The *2035 General Plan Health and Safety Element* includes the following policies related to emergency preparedness.

HS Objective C2.3 *Emergency Operations Center remains prepared, organized and capable of responding to disasters or incidences of a significant nature or magnitude that require coordinated multi-agency response.*

HS Policy C2.3.1 *The Kings County Office of Emergency Management maintains and updates the County's Emergency Response Plan in coordination with responding County agencies that serve to perform Management, Operations, Planning and Intelligence, Logistics, and Administration and Finance functions.*

HS Policy C2.3.2 *The Kings County Emergency Service Coordinator continues to organize Emergency Operations Center (EOC) training and exercises for relevant County Department staff to maintain readiness.*

HS Policy C2.3.3 *Geographic Information System (GIS) Section staff of the Kings County Community Development Agency participate in EOC training and maintain GIS data and applications for compatibility with EOC operations.*

HS Objective C2.4 *Ensure maintenance and upkeep of key emergency access routes, and critical facilities and infrastructure to minimize delays or disruptions in emergency response.*

HS Policy C2.4.1 *Prioritize the maintenance of Primary Access Routes, as defined by the County's Emergency Response Plan, which serve as established disaster evacuation routes.*

HS Policy C2.4.2 *Improve lighting and traffic controls at critical intersections and roadways to improve safety during fog events.*

HS Policy C2.4.3 *Assess vulnerability of critical infrastructure and lifeline utilities, including water distribution systems, to identify and prioritize projects for multi-hazard risk reduction.*

Mitigation Measures. Beyond compliance with existing and proposed policies, no mitigation measures are required.

Significance After Mitigation. Impacts would be less than significant without mitigation.

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4.8 HYDROLOGY and WATER QUALITY

This section assesses potential impacts related to flooding, stormwater runoff, water quality and dam inundation.

4.8.1 Setting

a. Watershed and Water Resources. The County is part of a hydrologic system referred to as the Tulare Lake Basin. The County is divided into three main hydrologic subareas: the northern alluvial fan and basin area (in the vicinity of the Kings, Kaweah, and Tule rivers and their distributaries), the Tulare Lake Zone, and the southwestern uplands (including the areas west of the California Aqueduct and Highway 5). The alluvial fan/basin subarea is characterized by southwest to south flowing rivers, creeks, and irrigation canal systems that convey surface water from the Sierra Nevada to the west toward the Tulare Lake Bed. The dominant hydrologic features in the alluvial fan/basin subarea are the Kings, Kaweah, and Tule rivers and their major distributaries.

The Kings River, which is the primary source of irrigation water for the area, is regulated by the Pine Flat Dam east of Fresno. The Kings River provides irrigation water to more than one million acres of agricultural land in Fresno, Tulare, and Kings Counties. Historically, much of the southern San Joaquin Valley drained to the historic Tulare Lake Basin, and the basin remains one of internal drainage (i.e., no streams or rivers flow out of the basin). In the event of extreme rainfall and flooding of the basin, surface water would flow north from the basin to the San Joaquin River.

The southwestern upland area represents the eastern extension of the Coast Ranges into the valley, and is characterized by northwest to southeast trending valleys and ridges. The ridge tops within this subarea reach elevations of up to 3,500 feet National Geodetic Vertical Datum (NGVD) in the western portion of the County. In contrast, the lowest elevation of the lake bed is approximately 175 feet NGVD. In general, surface water drainage from the upland subarea flows toward the valley to the east (Kings County Dairy Element EIR, 2003).

Groundwater. The County can be divided into three groundwater subbasins, similar to the surface water hydrologic subareas discussed above, based on the hydrogeologic characteristics of the subsurface. The three subbasins include: 1) the northern alluvial fan and basin deposits, 2) the central and southeast lacustrine and marsh deposits (Tulare Lake Bed), and 3) the southwestern uplands.

Alluvial Fan and Basin Deposits/Lacustrine and Marsh Deposits. The main difference between these two sub-basins is the near-surface hydrogeology. The alluvial fan sub-basin near-surface geology is characterized by a heterogeneous mixture of poorly sorted clay, silt, sand, and gravel, and in 1989, depth to first groundwater was measured to range from approximately 2.8 to 16.1 feet below the surface. The Tulare Lake Bed sub-basin near-surface geology is characterized by silt and clay deposits with a minor amount of sand. In both sub-basins, shallow groundwater (above a depth of approximately 250 to 900 feet above the E clay) occurs in unconfined or semi-confined water-bearing zones, while deeper groundwater is confined. The shallow and deep aquifers are separated by the E clay, a laterally extensive clay

layer within the Corcoran Clay Member of the Tulare Formation. The E clay is the most extensive lacustrine clay in the entire Central Valley, covering an area of approximately 5,000 square miles. The shallow water-bearing zone is composed of alternating layers of silt, clay, and sand.

Groundwater occurs at various depths within the shallow zone, since partially-confining clay layers or lenses occur throughout. In the Tulare Lake Bed subbasin, water levels were found to stabilize in wells installed to depths of 20, 56, 103, and 200 feet at 9.1, 15.7, 28.3, and 54.6 feet below the surface, respectively. The deeper aquifer (below the E clay) is confined and, therefore, groundwater is under hydraulic pressure in this zone. Water rises up into wells installed in the deep aquifer to a level of approximately 150 to 200 feet below the ground surface.

Southwestern Uplands. In general, groundwater supplies are limited in the southwestern upland sub-area. The relatively small valleys are isolated from surface water recharge; no major rivers or creeks flow through the sub-area. In addition, the uplands are located on the eastern side of the Coast Range, and therefore experience a "rain shadow" effect. The area receives approximately six inches of rainfall per year, which does not provide a substantial amount of recharge to the aquifers in the isolated valleys (e.g., the Kettleman Plains and Sunflower Valley) (Kings County Dairy Element EIR, 2003).

Water Quality. The quality of surface and ground water within the County is affected by land uses within the watershed and the composition of subsurface geologic materials. The State Water Resources Control Board (SWRCB) and Regional Water Quality Control Board (RWQCB) regulate water quality in surface and ground water bodies. The County is under the jurisdiction of the Central Valley RWQCB, which is responsible for implementation of State and Federal water quality protection guidelines within Kings County. The RWQCB implements the Water Quality Control Plan for the Tulare Lake Basin (Basin Plan), a master policy document for managing water quality issues in the region. The Basin Plan establishes beneficial water uses for waterways and water bodies within the region. Beneficial uses of surface waters in the Central Valley include water contact recreation, non contact water recreation, industrial service supply, irrigation supply, navigation, shellfish harvesting, fishing, and preservation of rare and endangered species. Beneficial uses of the Tulare Lake Basin groundwater aquifer (the aquifer underlying the site) include municipal and domestic supply, industrial process supply, industrial service supply, agricultural supply, and wildlife habitat.

Surface Water Quality. The National Pollutant Discharge Elimination System (NPDES) Nonpoint Source Program (established through the Clean Water Act) regulates the quality of runoff. The NPDES Nonpoint Source Program objective is to control and reduce pollutants to water bodies from nonpoint discharges. The Program is administered by the California RWQCBs.

Groundwater Quality. The groundwater basin in the Kings County portion of the San Joaquin Valley is an internally drained and closed basin. It has no appreciable surface or subsurface outflow, except in extremely wet years. Salts (generally measured as total dissolved solids [TDS]) are introduced into the basin with imported water supplies. Although the water may leave the basin by evaporation or evapotranspiration, the majority of the salts stay behind, potentially leading to a build-up of salt in the soil and groundwater. Excessive salt loading can

result in a degraded water supply, particularly if concentrations exceed the Secondary Drinking Water standard of 500 mg/L. Salt loading of managed groundwater basins is an important issue throughout the San Joaquin Valley. In addition, many of the naturally occurring deposits within the County are of marine origin and, therefore, have high salt content.

The distribution of TDS and trace elements in the Tulare Lake Basin was assessed by the U.S. Geological Survey (USGS) to evaluate potential problems associated with disposal of irrigation drain water containing elevated levels of selenium and other trace elements. In 1983, deformities of embryos and young waterfowl associated with elevated selenium concentrations were discovered at Kesterson Reservoir in Fresno County. The concern was that the disposal of irrigation drain water into evaporation ponds of the Tulare Lake Basin (the same practice employed at Kesterson) could concentrate the trace elements to levels that could be harmful to wildlife.

The results of the USGS study regarding TDS indicates that much of the shallow groundwater in the Tulare Lake Bed and alluvium/basin areas contains elevated levels of TDS, far in excess of the EPA's secondary drinking water standard of 500 mg/L. In general, water quality improves with depth. The deeper confined aquifer below the E-clay has been reported to contain water with TDS levels ranging from 179 to 569 mg/L. Additional analysis of shallow groundwater quality was conducted during the evaluation of environmental effects of the evaporation ponds northeast of Corcoran operated by the Tulare Lake Drainage District (TLDD). Water quality data collected from the tile drains and shallow monitoring wells in the vicinity of the TLDD evaporation ponds indicate that the perched (uppermost) groundwater in the central portion of the Tulare Lake Bed exceeds drinking water quality standards for total dissolved solids (and electrical conductivity), sulfate, chloride, and other constituents. The findings presented in the RWQCB 1993 Waste Discharge Requirements (WDR) for the TLDD evaporation ponds included a determination (#32) that the perched groundwater in the vicinity (within one mile) of the ponds "cannot be used for municipal or domestic supply without extensive treatment" and "is therefore not expected to supply a public water system." Finding #31 suggests that groundwater within the Tulare Lake Basin with total dissolved solids (TDS) concentration in excess of 3,000 mg/L is not suitable as a drinking water supply (Kings County Dairy Element EIR, 2003).

As described above, the hydrogeology of the Kings County area has played an important role in the development of the conditions that resulted in the presence of high salinity near-surface groundwater. The results of a subsequent study (1998) conducted by the USGS on nitrate and pesticide trends in groundwater in the eastern San Joaquin Valley indicate that groundwater drinking water supplies have been degraded by fertilizers and pesticides. Of approximately 100 various types of wells monitored, nitrate concentrations exceeded U.S. EPA drinking water standards about one-fourth of the time and pesticides were identified about two-thirds of the time (although mostly at low concentrations). As stated in the Basin Plan:

> *The greatest long-term problem facing the entire Tulare Lake Basin is the increase of salinity in groundwater. Even though an increase in the salinity of groundwater in a closed basin is a natural phenomenon, salinity increases in the Basin have been accelerated by man's activity, with the major impact coming from intensive use of soil and water resources by irrigated agriculture. Salinity increases in groundwater could ultimately eliminate the beneficial uses of this resource.*

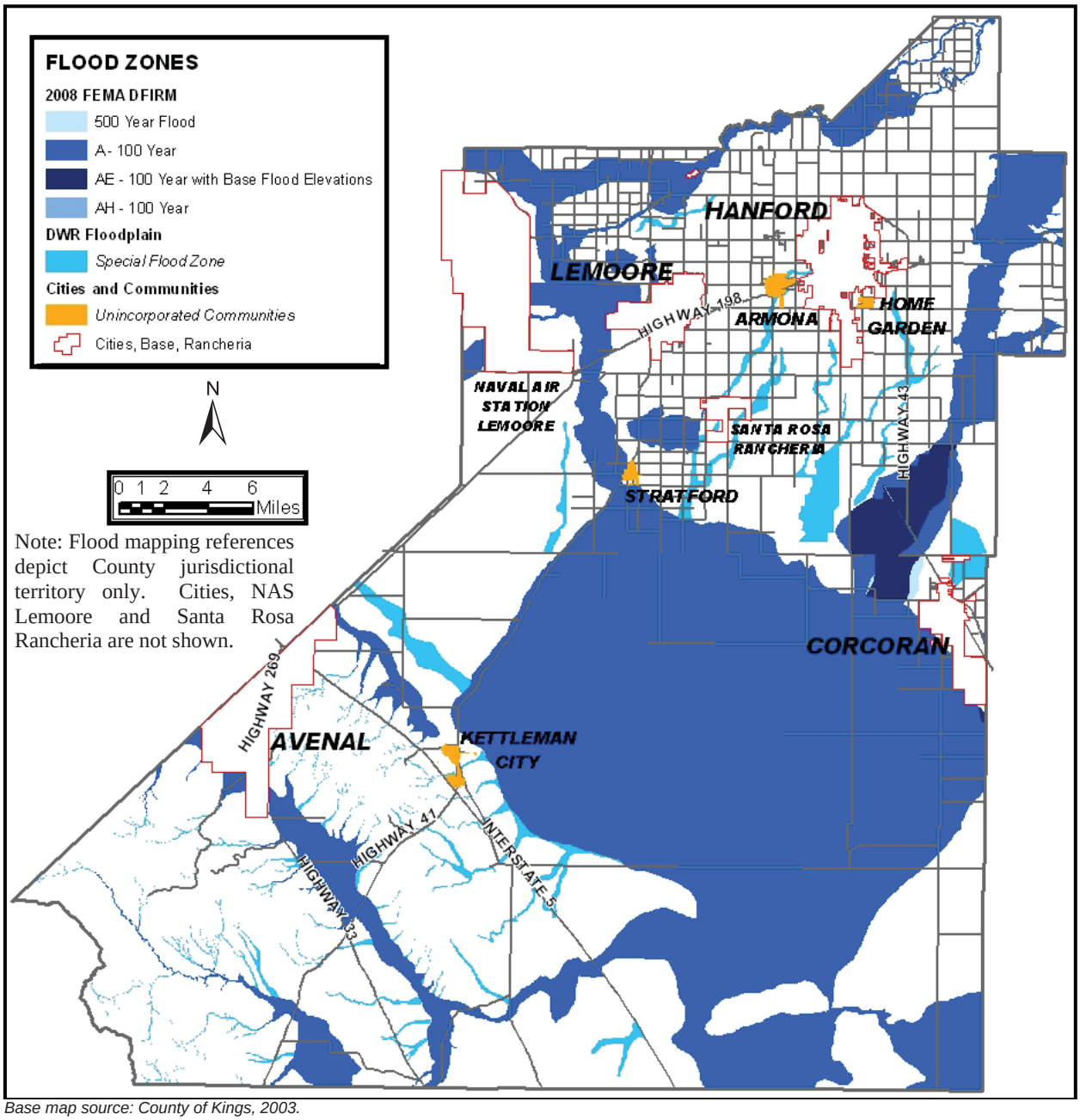
Controlled groundwater degradation by salinity is the most feasible and practical short-term management alternative for the Tulare Lake Basin.

c. Flood Hazards. The primary indicator of potential flooding is the presence of a floodplain as defined by the Federal Emergency Management Agency (FEMA). A floodplain is defined by FEMA as the area of land adjacent to the water course that may be submerged by flood water during a 100-year storm. These areas are defined on FEMA Flood Insurance Rate Maps (FIRM). The FEMA has updated the County's FIRMs with a new 2008 Digital Flood Insurance Rate Map (DFIRM), which became effective June 16, 2009, that defines various areas subject to 1 percent chance occurrence (100 year) and 500-year floods. The 2008 DFIRM expanded flood plains throughout the County as a result of 2005 post-Katrina Hurricane Levee Certification Guidelines (Code of Federal Regulations, Title 44, Section 65.10) and added approximately 148,000 acres into the County's high risk 100-year flood zone. Kings County maintains a Floodplain Management Program based on information and maps Published by FEMA. Additional "Special Flood Hazard" areas have also been identified by the State Department of Water Resources (DWR). Local areas subject to flood hazard as defined by the 2008 DFIRM are shown on Figure 4.8-1.

d. Dam Inundation. Pine Flat and Terminus are the two dams in the region which, if breached, might cause flooding of significance to local inhabited areas within the General Plan area (Figure 4.8-2). If Pine Flat Dam failed while at full capacity, its floodwaters would arrive in Kings County within approximately five hours. If Terminus Dam failed while at full capacity, its floodwaters would arrive in Kings County within approximately twelve hours. The Terminus, Success, and Pine Flat Dams (located east of the valley floor in the Sierra Nevada Mountains and feeding the Kaweah, Tule, and Kings Rivers, respectively), plus improvements made to other flood control facilities in the Kings County area, have significantly reduced local natural flood hazards. According to Army Corps of Engineers inundation maps, the failure of Success Dam would not affect inhabited portions of Kings County.

e. Regulatory Framework. Development in the Plan Area is subject to various local, state, and federal regulations and permits regarding the use of water resources. The federal government administers the NPDES permit program, which regulates discharges into surface waters. Section 404 of the Clean Water Act prohibits the discharge of dredged or fill materials into Waters of the United States or adjacent wetlands without a permit from the U.S. Army Corps of Engineers. As discussed under *Flood Hazards*, FEMA establishes base flood heights for 100-year and 500-year flood zones. However, Base Flood Elevations (BFE) are not established throughout most of the County with only the lower segments of Cross Creek having an established BFE.

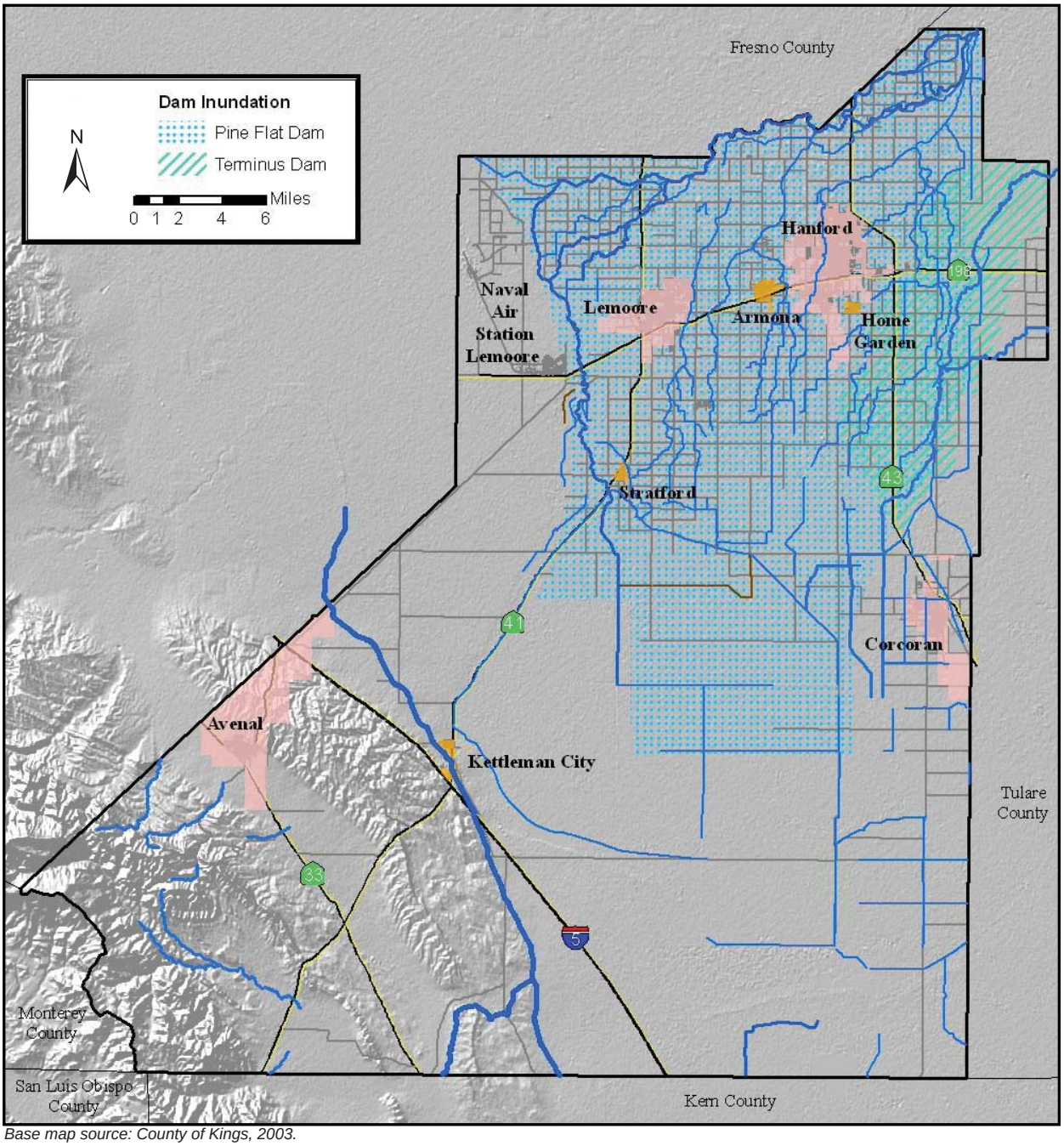
The primary regulatory control relevant to the protection of water quality is the Federal NPDES permit administered by the SWRCB. This board establishes requirements prescribing the quality of point sources of discharge and establishes water quality objectives. These objectives are established based on the designated beneficial uses (e.g, water supply, recreation, and habitat) for a particular surface water or groundwater. The NPDES permits are issued to point source dischargers of pollutants to surface waters and are issued pursuant to Water Code Chapter 5.5 that implements the Federal Clean Water Act. Examples include, but are not limited to, public wastewater treatment facilities, industries, power plants, and groundwater



Base map source: County of Kings, 2003.

Kings County FEMA Flood Insurance Rate Map

Figure 4.8-1



Base map source: County of Kings, 2003.

Kings County Dam Inundation Zone Map

Figure 4.8-2

cleanup programs discharging to surface waters. Discharge limits, under the NPDES permits, for minerals and pollutants are established and regulated by the RWQCB.

Projects disturbing more than one acre of land during construction are required to file a Notice of Intent (NOI) with the RWQCB to be covered under the State NPDES General Construction Permit for discharges of storm water associated with construction activity. A developer must propose control measures that are consistent with the State General Permit. A Storm Water Pollution Prevention Plan (SWPPP) must be developed and implemented for each site covered by the general permit. A SWPPP should include Best Management Practices (BMPs) designed to reduce potential impacts to surface water quality through the construction and life of the project.

The control of non-point source runoff from industrial sources and associated pollutants is regulated in California by the SWRCB under the statewide General Permit for Stormwater Discharges Associated with Industrial Activities Order No. 97-03-DWQ. The General Permit presents the requirements for compliance of certain industries with the NPDES. A wide range of industries is covered under the general permit, including mining operations, lumber and wood products facilities, petroleum refining, metal industries, and some agricultural product facilities.

4.8.2 Impact Analysis

a. Methodology and Significance Thresholds. Flooding risk was determined using Federal Insurance Rate Maps for the area.

Impacts would be considered significant if development facilitated by the 2035 General Plan would:

- *Potentially degrade surface or groundwater quality below standards established by the RWQCB (these standards are usually in accordance with the California EPA's maximum contaminant levels (MCLs) for drinking water);*
- *Substantially interfere with groundwater recharge;*
- *Substantially alter the existing drainage pattern of the area such that substantial erosion or siltation occurs;*
- *Substantially alter the existing drainage pattern or substantially increase the rate or amount of surface runoff in a manner which results in flooding;*
- *Substantially add additional sources of polluted runoff to a water body; or*
- *Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.*

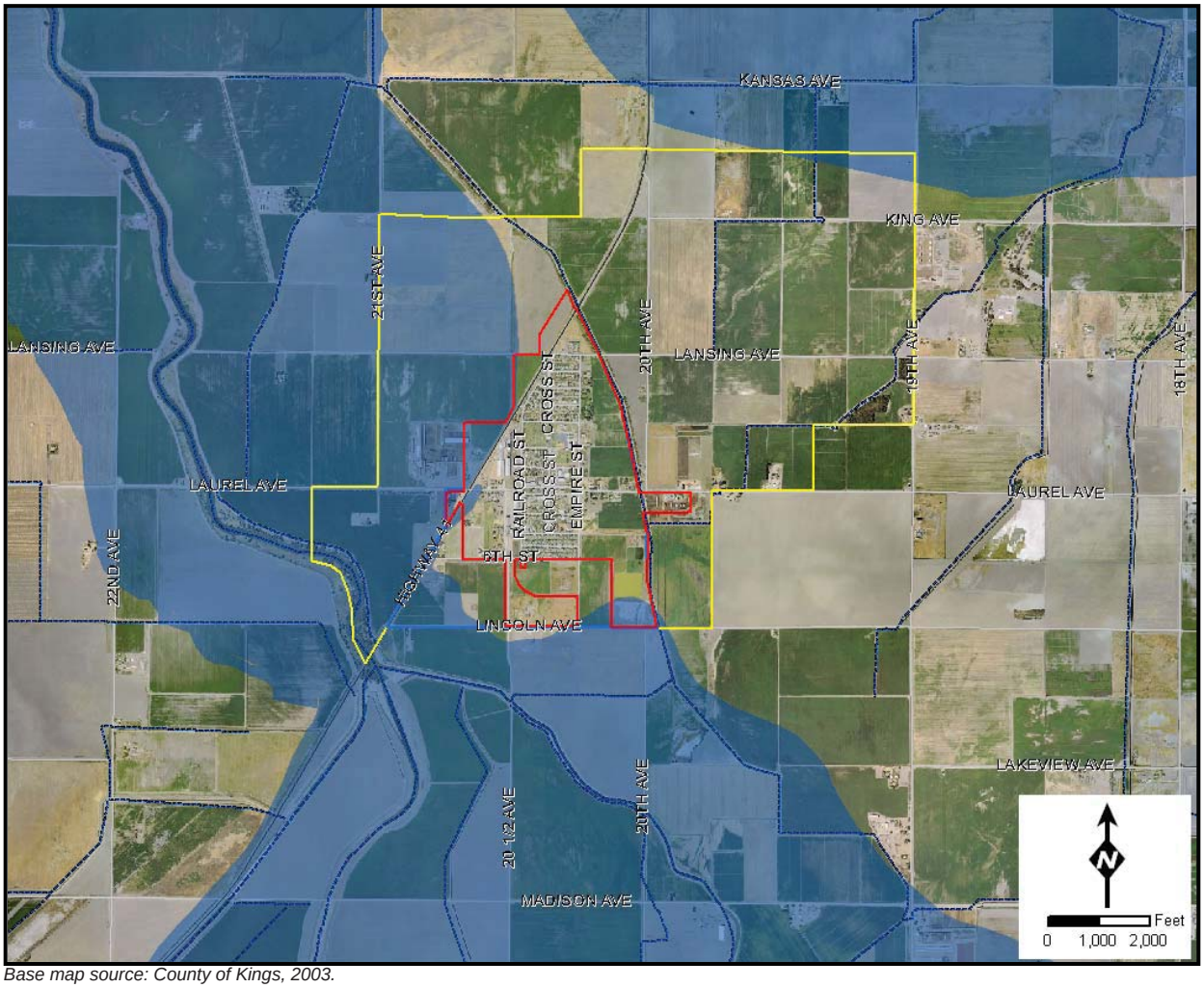
b. Project and Cumulative Impacts.

Impact HWQ-1 **A small portion of commercially designated land in the Stratford Community Plan area would be located within the 100-year flood zone. Limited residential development may also occur in agricultural designated land that is within the 100-year flood zone. However, with implementation of 2035 General Plan and Community Plan policies, impacts related to flooding would be Class III, *less than significant*.**

Flooding as a result of storm events can cause widespread damage to affected areas, and endanger human safety. When urban areas encroach on floodplains, buildings and vehicles can be damaged or destroyed, while smaller objects can be buried in flood-deposited sediments. Floodwaters can break utility lines, interrupting services and potentially affecting health and safety. Floods may also create health and safety hazards and disruption of vital public services. The secondary effects of flooding are due to standing water, which can result in crop damage, septic tank failure, and water well contamination. Standing water can also damage roads, foundations, and electrical circuits. The extent of damage caused by any flood depends on the topography of the area flooded; depth, duration, and velocity of floodwaters; the extent of development in the floodplain; and the effectiveness of forecasting, warnings, and emergency operations. Encroachment onto floodplains, such as artificial fills and structures, reduces the capacity of the floodplain and increases the height of floodwater upstream of the obstructions.

For the vast majority of Kings County, the 100-year floodplain occupies agricultural land to the south of existing urbanized areas. As discussed in section 2.0 *Project Description*, the majority of commercial and residential development is expected to occur in urbanized areas, primarily within the four Community Plan areas. Development that would occur outside of community plan areas would mostly occur adjacent to the urban boundaries of the plan areas, known as the urban fringe. Each community plan area, as well as the areas immediately surrounding the community plan areas are not located within the 100-year floodplain, with the exception of a small portion of the Stratford Community Plan area. As such, development that would occur in these areas would not be subject to flooding and associated hazards. Should structures be developed beyond the urban areas and urban fringes of the community plan areas on agricultural designated land, such that they are located within the 100-year flood zone, they would be subject to the County's policies as set forth the in proposed 2035 General Plan Health and Safety Element, which would ensure that people or property are not subject to the risks associated flooding.

Within Stratford, the 100-year flood zone occupies a small portion of the western and southern perimeters of the Community Plan area, as shown on Figure 4.8-3. The portions of the plan area near the western perimeter within the floodplain include Limited Agriculture and Commercial land use designations, while the portions near the southern boundary include Public and Open Space land use designations. The commercially designated area near the western boundary is within the 100-year flood zone. This area would accommodate commercial structures, which may pose a risk to structures and temporary human populations during a 100-year storm event.



Base map source: County of Kings, 2003.

FEMA Designated 100 Year
Flood Zone for Stratford

Figure 4.8-3

In addition, the Public-designated areas could include uses such as community centers or schools, which may also pose a risk during a storm event. No habitable structures would be located within Open Space designated areas. Nonetheless, any development within the 100-year flood zone would be subject to the County's policies as set forth in the proposed *2035 General Plan Health and Safety Element* and the *Stratford Community Plan*, which would ensure that people or property are not subject to the risks. Therefore, impacts related to flooding caused by storm events would be less than significant.

Proposed General Plan Policies which Reduce Impacts. The *2035 General Plan Health and Safety Element* includes the following policies, the implementation of which would mitigate potential impacts related to flood risk.

HS GOAL A4 *Prevent unnecessary exposure of people and property to flood damage.*

HS OBJA4.1 *Direct new growth away from designated flood hazard risk areas, and regulate new development to reduce the risk of flood damage to an acceptable level.*

HS Policy A4.1.1 *Review new development proposals against current Federal Emergency Management Agency (FEMA) digital flood insurance rate maps and California Department of Water Resource special flood hazard maps to determine project site susceptibility to flood hazard.*

HS Policy A4.1.2 *Reserve FEMA designated flood hazard areas for agricultural and natural resource conservation uses along the floodway channels and Tulare Lake Basin.*

HS Policy A4.1.3 *Determine base flood elevations for new development proposals within or adjacent to 100 year flood zone areas as identified in latest FEMA Digital Flood Insurance Rate Map, to definitively assess the extent of property potentially subject to onsite flood hazards and risks.*

HS Policy A4.1.4 *Direct new urban growth to existing cities and community districts, or away from New Community Discouragement Areas to avoid flood hazard areas and increased risk to people and property.*

HS Policy A4.1.5 *Regulate development, water diversion, vegetation removal, and grading to minimize any increase in flood damage to people and property.*

HS Policy A4.1.6 *New development shall provide onsite drainage or contribute towards their fair share cost of off-site drainage facilities to handle surface runoff.*

HS Policy A4.1.7 *Consider and identify all areas subject to flooding in the review of all land divisions and development projects.*

HS Policy A4.1.8 *Enforce the "Kings County Flood Damage Prevention Ordinance," Chapter 5A of the Kings County Code of Ordinances.*

The *2035 Stratford Community Plan* includes the following policies, the implementation of which would mitigate potential impacts related to flood risk.

SCP OBJ 7D.1 *Prevent the construction of facilities or land improvements, within the 100 year flood zone, that could result in a loss of life or property.*

SCP Policy 7D.1.1 *The County shall apply a minimum level of acceptable risk to new construction and proposals for substantial improvements to all development within the 100-year floodplain and disapprove projects that cannot mitigate the hazard to the satisfaction of the Building Official or other responsible agency.*

SCP Policy 7D.1.2 *The County shall continue to use the 100-year flood event and any base flood elevations available to measure the level of acceptable risk and protection when considering any amendments to the Stratford Community Plan Land Use Map.*

Mitigation Measures. None required beyond implementation of the existing regulatory framework and proposed General Plan policies.

Significance after Mitigation. Impacts would be less than significant.

Impact HWQ-2 **Portions of the County are located within an identified dam inundation hazard area associated with the Pine Flat Dam and the Terminus Dam. There is potential to expose people and structures to associated dam inundation hazards. However, the Hazard Mitigation Plan identified dam inundation as a low significance hazard. Therefore, impacts related to dam inundation would be Class III, *less than significant.***

The 2007 Kings County Multi-Jurisdictional Hazard Mitigation Plan (HMP) states that Pine Flat and Terminus are the only dams in the region which, if breached, might cause flooding of significance to local inhabited areas, refer to Figure 4.8-2. The mapped inundation area for the failure of Terminus Dam covers the area east of Hanford and the railroad, and north of Corcoran to the eastern county line. The inundation area for the failure of Pine Flat Dam is much larger, covering the northern third of the County, east of the Naval Air Station Lemoore and west of Corcoran, south to the El Rico Main Canal. If Pine Flat Dam failed while at full capacity, its floodwaters would arrive in Kings County within approximately five hours. If Terminus Dam failed while at full capacity, its floodwaters would arrive in Kings County within approximately twelve hours. The 2035 General Plan does not introduce populations of people into dam inundation zones that are currently unpopulated, as much of the inundation zone includes the communities of Armona and Home Garden, and the cities of Hanford and Lemoore. In addition, based on a risk analysis, the HMP concludes that dam inundation is not a significant hazard due to the very low probability of dam failure (County of Kings, 2007) Therefore, impacts related to dam inundation are less than significant.

General Plan Policies which Reduce Impacts. The 2035 General Plan does not include policies intended to address hazards related to dam inundation because the HMP determined that dam inundation is a very low risk.

Mitigation Measures. None required, as no significant impacts were identified.

Significance after Mitigation. Impacts would be less than significant without mitigation.

Impact HWQ-3 Development facilitated by the 2035 General Plan would incrementally increase the amount of impervious surfaces within the County, resulting in an increase in watershed runoff and a decrease in percolation to the Tulare Lake Basin. Runoff could degrade water quality. Therefore, impacts would be Class II, *significant but mitigable.*

Development that could be facilitated by the 2035 General Plan would incrementally increase development intensity in portions of the County, thereby increasing the amount of impervious surface area within the watershed. This could incrementally increase surface runoff into area drainages and reduce the area available for groundwater percolation to the Tulare Lake Basin.

The majority of new development facilitated under the 2035 General Plan would occur in existing urban areas where impervious surfaces occupy a substantial portion of the land. Additionally, the areas where development would occur are similar to those under the 1993 General Plan. Development in large undeveloped areas would not increase under the 2035 General Plan, as the plan intends to focus development within existing urban areas. In addition, over 90 percent of the 818,778 acres that comprise the unincorporated portion of the County are designated for agriculture, natural resource conservation and open space, which are land uses that do not facilitate the development of impervious surfaces. In addition, development that would not occur within existing urban areas would primarily occur within the urban fringe of existing urban areas. As such, development under the 2035 General Plan would not result in substantial amounts of impervious surface such that groundwater recharge is severely hindered. In addition, any future development in these areas would be subject to all federal and state regulations regarding impervious surface and stormwater runoff, as described in subsection 4.8.1(f). Therefore, impacts related to impervious surfaces and groundwater recharge would be less than significant.

General Plan Policies which Reduce Impacts. There are no policies within the 2035 General Plan which specifically address impervious surfaces. However, as discussed above, the *2035 Land Use Element and Community Plans* policies encourage infill development and preservation of agricultural land and open spaces, thereby limiting the addition of new impervious surfaces. Nevertheless, increase in impervious surfaces may result in impacts to water quality.

Mitigation Measures. For future development within the County, compliance with an approved SWPPP would achieve compliance with applicable regulatory improvements. The following mitigation measure would provide minimum standards that ensure that temporary construction-related water quality impacts are reduced to a less than significant level:

H-1(a) **Low Impact Development (LID)**. Future development pursuant to the 2035 General Plan shall incorporate LID principals into the project design to minimize long-term stormwater runoff. Such principles shall include:

- *Permeable paving, such as pavers, porous concrete, or pathway comprised of decomposed granite that is effective in stormwater infiltration to help prevent excess runoff.*
- *Use of "urban bio-swales" to redirect stormwater into planter strips, rather than capturing runoff in pipes and diverting it to a remote location.*
- *Use of water efficient irrigation (e.g., drip irrigation system) to water trees, shrub beds, and areas of groundcover to eliminate evaporation losses and minimize runoff.*
- *Use of predominately (75 percent) native plants and drought-tolerant landscaping wherever possible.*

Significance after Mitigation. Impacts would be less than significant following implementation of mitigation.

Impact HWQ-4 **Point and non-point sources of contamination could affect water quality in the Kings River and groundwater in Tulare Lake Basin. However, compliance with existing regulations and implementation of 2035 General Plan policies would result in Class III, *less than significant*, impacts.**

Urban runoff can have a variety of negative effects. Oil and grease contain a number of hydrocarbon compounds, some of which are toxic to aquatic organisms at low concentrations. Heavy metals such as lead, cadmium, and copper are the most common metals found in urban storm water runoff. These metals can be toxic to aquatic organisms, and have the potential to contaminate drinking water supplies.

Water quality impacts from potential future projects are directly related to specific site drainage patterns and stormwater runoff. As noted in Impact HWQ-3 above, development under the 2035 General Plan would incrementally increase the amount of impermeable surface compared to current conditions. These surfaces would increase the amount of stormwater runoff following storm events. As rainwater passes overland, contaminants become suspended within the flow. In particular, stormwater runoff from landscaped areas, roadways and parking lots contains various pollutants associated with motor vehicles, including petroleum compounds, heavy metals, asbestos, and rubber, as well as fertilizers and pesticides from landscaped areas. During storm events, these pollutants are transported into drainage systems by surface runoff. The increase in contaminants related to irrigation, commercial and industrial uses, and resulting discharge of these contaminants during storm events, could adversely affect the water quality of the Kings River and the Tulare Lake Basin. With no prior treatment of stormwater runoff, any pollutants retained from the impervious roadway surfaces would directly enter the surface water bodies in the County.

The additional runoff due to increased impervious surfaces would further contribute to the degraded water quality of the Tulare Lake Basin. Currently, irrigation water from agricultural operations contributes elevated levels of selenium and other trace elements, which has led to violations of the EPA's secondary drinking water standard of 500 mg/L. The contamination has impacted wildlife as well as drinking and municipal water quality. The 2035 General Plan would further contribute non-point source contamination particularly in urban areas such as within the communities of Armona, Home Garden, Kettleman City, and Stratford where stormwater runoff infrastructure is seriously deficient. These areas also lack stormwater runoff infrastructure such as detention basins and vegetated drainage swales which reduce the amount of contaminants within runoff.

Construction activities could also result in the pollution of natural watercourses or underground aquifers. The types of pollutant discharges that could occur as a result of construction include accidental spillage of fuel and lubricants, discharge of excess concrete, and an increase in sediment runoff.

Discharge of pollutants from any point source is prohibited unless the discharge is in compliance with a NPDES Permit issued by the RWQCB. Point sources of pollutants of greatest concern include nutrients (ammonia and nitrate), heavy metals, toxic chemicals, chlorine, and salts.

Non-point sources of pollutants, which are also regulated under NPDES permits, include urban runoff that is carried to city storm drains and/or natural drainages. The Permit requires the preparation of a SWPPP that contains specific actions, termed Best Management Practices (BMPs), to control the discharge of pollutants, including sediment, into local surface water drainages.

Increases in development intensity that could occur under the 2035 General Plan within the County may incrementally increase pollutants in surface runoff. However, new development would be required to comply with current federal, state, and local requirements, which are more stringent than what was required at the time most existing development within the County was built. In addition, the 2035 General Plan has several policies that seek to avoid water degradation. As such, new development projects that incorporate BMPs, as encouraged by the 2035 General Plan, could actually improve water quality. Therefore, impacts would be less than significant.

General Plan Policies which Reduce Impacts. The *2035 General Plan Resource Conservation Element* includes the following policies which mitigate potential impacts related to water quality.

RC OBJ A1.4 *Protect the quality of surface water and groundwater resources in accordance with applicable federal, state and regional requirements and regulations.*

RC Policy A1.4.1 *Evaluate proposed land uses and development projects for their potential to create surface and groundwater contamination from point and non-point sources. Confer with other appropriate agencies, as necessary, to assure adequate water quality review to prevent soil erosion; direct discharge of potentially harmful substances; ground leaching from storage of raw*

materials, petroleum products or waste; floating debris; and runoff from the site.

RC Policy A1.4.2 *Monitor and enforce provisions to control water pollution contained in the U.S. EPA National Pollutant Discharge Elimination System (NPDES) program as implemented by the California Water Quality Control Board, Central Valley Region.*

RC Policy A1.4.3 *Require the use of feasible and cost-effective Best Management Practices (BMPs) and other measures designed to protect surface water and groundwater from the adverse effects of construction activities and urban and agricultural runoff in coordination with the California Water Quality Control Board, Central Valley Region.*

RC Policy A1.4.4 *Encourage and support the identification of degraded surface water and groundwater resources and promote restoration where appropriate.*

RC OBJ A1.5 *Avoid the placement of potential pollution sources in areas that have the potential to foster groundwater recharge.*

RC Policy A1.5.1 *Cooperate with local agencies in the preservation and purchase of natural sloughs for use as water recharge and drainage basins.*

RC OBJA1.6 *Protect groundwater quality by applying development standards which seek to prevent pollution of surface or groundwater and net loss of natural water features.*

RC Policy A1.6.1 *Require subdivisions with lot sizes of less than one acre to connect to the sewer and water services of a city or community district.*

RC Policy A1.6.2 *Support measures to ensure that water users do not unreasonably use groundwater resources.*

RC Policy A1.6.3 *Protect groundwater by enforcing the requirements for installation of wells in conformity with the California Water Code, the Kings County Well Ordinance, and other pertinent state and local requirements.*

RC OBJ C2.2 *Ensure that land use decisions are compatible with the control of soil erosion and the maintenance of soil quality.*

RC Policy C2.2.1 *Require erosion control measures for any development involving construction or grading near waterways, or on land with slopes over ten percent. Require that improvements such as roads and driveways be designed to retain natural vegetation and topography to the extent feasible.*

RC Policy C2.2.2 *Continue to require the application of construction related erosion control measures, including Stormwater Pollution Protection Plans (SWPPP) for all new construction.*

RC Policy D3.1.5 *Refer all discretionary permit applications for projects along the Kings River and Cross Creek to the appropriate local, state, and federal agencies for review and approval.*

RC OBJ H1.2 *Ensure that mineral extraction operations are designed, located and operated so that they do not harm humans or the natural environment or are incompatible with surrounding land uses.*

RC Policy H1.2.1 *Discourage the location of mining operations near residential areas and other sensitive land uses, unless all impacts to such uses can be mitigated.*

RC Policy H1.2.2 *Minimize the adverse effects on environmental resources such as water quality and quantity, air quality, drainage and flood control, geophysical characteristics, biological resources, and aesthetic factors.*

RC Policy D3.1.5 *Refer all discretionary permit applications for projects along the Kings River and Cross Creek to the appropriate local, state, and federal agencies for review and approval.*

The *Armona Community Plan* includes the following policies which mitigate potential impacts related to water quality.

ACP GOAL 5B *Armona CSD establishes a communitywide storm drainage system that removes standing pools of water along roadways, and drains runoff into a diverse number of receiving facilities.*

ACP OBJ5B.1 *Establish a diverse series of site hydrologic functions to receive and detain storm water runoff.*

ACP Policy 5B.1.1 *Require new development to integrate onsite stormwater drainage features to increase the storm water detention throughout the community.*

ACP Policy 5B.1.2 *Integrate stormwater detention basins into the design of parks, parkways, medians, and other open space areas to serve as dual purpose facilities.*

ACP Policy 5B.1.3 *New stormwater drainage facilities established by new developments shall be required to establish a County Service Area or District Zone of Benefit that is supported by benefiting property assessments.*

The *Home Garden Community Plan* includes the following policies which mitigate potential impacts related to water quality.

HGCP GOAL 5B *Home Garden integrates a diverse number of drainage receiving facilities throughout the community that serve to drain and divert storm water runoff in an efficient and effective manner.*

HGCP OBJ 5B.1 *Establish a communitywide storm drainage system that directs storm water to County or District maintained drainage facilities, and assists new commercial and residential growth in addressing drainage requirements.*

HGCP Policy 5B.1.1 *The County shall develop a communitywide storm drainage plan in coordination with the Home Garden CSD to identify needed improvements and facilities as long as it is funded by grants or other funds.*

HGCP OBJ 5B.2 *Establish a diverse series of on-site hydrologic functions to effectively receive and detain storm water runoff, while relieving drainage pressure upon larger communitywide drainage facilities.*

HGCP Policy 5B.2.1 *Require new development to integrate on-site storm water drainage features that increasingly disperse the storm water detention throughout the community.*

HGCP Policy 5B.2.2 *Integrate storm water detention basins into the design of parks, parkways, medians, and other open space areas to serve as dual purpose facilities.*

HGCP Policy 5B.2.3 *New storm water drainage facilities established by new developments shall be required to establish a County Service Area or District Zone of Benefit that is supported by benefiting property assessments.*

The *Kettleman City Community Plan* includes the following policies which mitigate potential impacts related to water quality.

KCCP GOAL 5B *Kettleman City establishes a communitywide storm drainage system that removes standing pools of water along roadways, and drains runoff into a diverse number of receiving facilities.*

KCCP OBJ 5B.1 *Establish a diverse series of site hydrologic functions to receive and detain storm water runoff.*

KCCP Policy 5B.1.1 *Require new development to integrate onsite stormwater drainage features to increase the stormwater detention throughout the community.*

KCCP Policy 5B.1.2 *Integrate stormwater detention basins into the design of parks, parkways, medians, and other open space areas to serve as dual purpose facilities.*

The *Stratford Community Plan* includes the following policies which mitigate potential impacts related to water quality.

SCP GOAL 5C *Kings County Public Works Department establishes a communitywide storm drainage system that removes standing pools of water along roadways, and drains runoff into a diverse number of receiving facilities.*

SCP OBJ 5C.1 *Establish a diverse series of site hydrologic functions to receive and detain storm water runoff.*

SCP Policy 5C.1.1 *Require new development to integrate onsite stormwater drainage features to increase the storm water detention throughout the community.*

SCP Policy 5C.1.2 *Integrate stormwater detention basins into the design of parks, parkways, medians, and other open space areas to serve as dual purpose facilities.*

SCP Policy 5C.1.3 *New stormwater drainage facilities established by new developments shall be required to establish a County Service Area or District Zone of Benefit that is supported by benefiting property assessments.*

Mitigation Measures. None required, as no significant impacts were identified.

Significance after Mitigation. Impacts would be less than significant without mitigation.

4.9 LAND USE and PLANNING

This section analyzes the proposed 2035 General Plan's consistency with applicable local, regional, and state land use policies. Consistency with the San Joaquin Valley Air Pollution Control District (SJVAPCD) PM_{10} and ozone attainment demonstration plans is discussed in Section 4.2, *Air Quality*. Land use compatibility conflicts associated with growth facilitated by the 2035 General Plan are discussed in sections 4.1, *Aesthetics*, 4.2, *Agricultural Resources*, 4.3, *Air Quality*, 4.7, *Hazards and Hazardous Materials*, and 4.10, *Noise*.

4.9.1 Setting

Kings County is subject to the land use regulatory policies of various federal and regional agencies. These agencies and the corresponding policy documents that affect land use planning in Kings County are discussed below.

a. Regulatory Agencies. The County of Kings retains land use authority and jurisdiction over all territory within the County, except for land located within any of the four incorporated cities (Avenal, Corcoran, Hanford, and Lemoore) and two Federal territories (Naval Air Station Lemoore and Santa Rosa Rancheria Tribal Trust Land). Cities and federal territories are not subject to the County's land use regulations, and are therefore outside the jurisdiction of the proposed 2035 General Plan. City and federal policy documents will therefore not be discussed herein.

Regional and local agencies with roles in establishing and implementing land use policy in Kings County include the Kings County Association of Governments (KCAG) and the Local Agency Formation Commission (LAFCo) of Kings County.

Kings County Association of Governments (KCAG). The Kings County Association of Governments (KCAG) is a joint power agency with regional responsibility for addressing inter-jurisdictional and regional public policy matters. KCAG's member agencies include the cities of Avenal, Corcoran, Hanford, Lemoore, and the County of Kings. KCAG is also a state-designated regional transportation planning agency (RTPA) recognized by the State's Business, Transportation, and Housing Agency. The RTPA is responsible for administering the Regional Transportation Plan (RTP), preparing a Regional Transportation Improvement Program (RTIP), the Federal Transportation Improvement Program (FTIP), reviewing the State Transportation Improvement Program (STIP) and other state transportation programs, monitoring local public transit operations, overseeing federal transportation grant proposals, and administering the Local Transportation Fund (LTF) and State Transit Assistance (STA) funds. KCAG is also responsible for preparing the Regional Housing Needs Allocation Plan (RHNA) and development of the Kings County portion of the San Joaquin Valley Blueprint. The RHNA is directly tied to the Housing Element which is being updated separately as it has its own prescribed state timeline for adoption.

Local Agency Formation Commission (LAFCo) of Kings County. LAFCo was formed and operates according to the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (California Government Code §56000 et seq.). State law provides for LAFCos to be formed as independent agencies in each county in California. LAFCos implement state

requirements and state and local policies relating to boundary changes for cities and most special districts, including spheres of influence, incorporations, annexations, reorganizations and other changes of organization. In this capacity, the LAFCo of Kings County is the boundary agency for cities and most special districts in Kings County. The LAFCo of Kings County Mission Statement is as follows:

> *For the social, fiscal, and economic well-being of the County of Kings and the State of California, encourage the orderly formation, development, and reorganization of local governmental agencies; preserve open-space and prime agricultural land; and discourage urban sprawl.*

b. Applicable Plans and Policies. Plans, regulations, and policies of the above agencies that are relevant to the draft 2035 General Plan are described below.

Local Agency Formation Commission (LAFCo) of Kings County Policies and Procedures Manual. The State of California has the exclusive power to regulate boundary changes, which means that no local government has the right to change its own boundary without State approval. The Legislature has prescribed a "uniform process" for boundary changes for both cities and special districts that is now embodied in the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (California Government Code Section 56000 et seq.). This Act delegates the Legislature's boundary powers to LAFCos. LAFCo of Kings County (http://www.kingslafco.com/) is responsible for reviewing and approving proposed jurisdictional boundary changes in Kings County, including the annexation and detachment of territory to and/or from cities and most special districts, incorporations of new cities, formations of new special districts, and consolidations, mergers, and dissolutions of existing districts. In addition, LAFCos must review and approve contractual service agreements, conduct service reviews, and determine spheres of influence boundaries for each city and district.

The LAFCo of Kings County Policies and Procedures Manual (revised April 22, 2009) outlines LAFCo's objectives, policies for reviewing proposals, and standards of review. In general, LAFCos base decisions on the following objectives: to encourage the orderly formation of local government agencies, to preserve agricultural lands, and to discourage urban sprawl. These policies are described as follows.

- *Encourage the Orderly Formation of Local Government Agencies. LAFCos review proposals for the formation of new local government agencies and changes of organization in existing agencies. In California, there are 58 LAFCos working with nearly 4,000 governmental agencies in 58 counties, approximately 480 cities, and approximately 3,000 special districts. Agency boundaries are often unrelated to one another and sometimes overlap at random, often leading to higher service costs to the taxpayer and general confusion regarding service area boundaries. LAFCo decisions strive to balance the competing needs in California for affordable housing, economic opportunity, and conservation of agricultural resources.*

- *Preserve Agricultural Land Resources. LAFCo must consider the effects that any proposal will produce on existing agricultural lands. By guiding development toward vacant urban land and away from agricultural preserves, LAFCo assists with the preservation of our valuable agricultural resources. Section 56377 guides this objective by requiring that LAFCo must consider the following when reviewing and approving or disapproving proposals which could*

reasonably be expected to induce, facilitate, or lead to the conversion of existing open-space lands to other than open-space uses. The commission shall consider all of the following policies and priorities:

a. Development or use of land for other than open-space uses shall be guided away from existing prime agricultural lands in open-space use toward areas containing nonprime agricultural lands, unless that action would not promote the planned, orderly, efficient development of an area.

b. Development of existing vacant or nonprime agricultural lands for urban uses within the existing jurisdiction of a local agency or within the sphere of influence of a local agency should be encouraged before any proposal is approved which would allow for or lead to the development of existing open-space lands for non-open-space uses which are outside of the existing jurisdiction of the local agency or outside of the existing sphere of influence of the local agency.

- *Discourage Urban Sprawl. Urban sprawl can best be described as irregular and disorganized growth occurring without apparent design or plan. This pattern of development is characterized by the inefficient delivery of urban services (police, fire, water, and sanitation) and the unnecessary loss of agricultural land. By discouraging sprawl, LAFCo limits the misuse of land resources and promotes a more efficient system of local governmental agencies.*

- *Standards for Annexation to Cities and Special Districts Providing Urban Services. LAFCo standards are provided for review of all changes of organization or reorganization of cities and special districts. Both favorable and unfavorable factors for annexation to cities and special districts providing urban services are listed below.*

  1. *Favorable Factors:*
     - *a. Proposal would eliminate or reduce in size, islands, near islands or other gross distortions of existing city and district boundaries.*
     - *b. The proposed area is urban in character and should be provided with municipal or urban type services.*
     - *c. The proposed area is close to urban development and municipal type services and would enhance its potential of full development.*
     - *d. The proposal is requested by a governmental agency for annexation of its publicly owned property.*
     - *e. The proposed annexation conforms to the adopted general plan.*
     - *f. The boundaries are definite and certain.*
     - *g. The proposed area is consistent with the sphere of influence.*
     - *h. Request for annexation comes with the consent of all land owners, as shown on the last assessment roll.*

  2. *Unfavorable Factors:*
     - *a. The proposed annexation would create extensive corridors or peninsulas extending into an unincorporated area, and would cause further distortion of city boundaries.*
     - *b. The proposed annexation would result in a premature intrusion of urbanization into an agricultural area.*
     - *c. Extension of city services is financially infeasible for the foreseeable future.*

d. *The area is presently rural or agricultural and no urban development appears to be imminent.*
e. *The proposed annexation is motivated by land speculation or other motives not in the public's best interest.*
f. *Boundaries of the proposal to not include appropriate area or are otherwise improperly drawn.*
g. *The proposal is inconsistent with adopted sphere of influence and adopted general plan.*

Regional Transportation Plan (RTP). KCAG's Final 2007 RTP, adopted May 23, 2007, is designed to comply with the RTP Guidelines adopted by the California Transportation Commission (CTC) in December 1999. The RTP is intended to serve many purposes, including:

- *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 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 Plan (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.*

San Joaquin Valley Blueprint. The eight San Joaquin Valley counties of San Joaquin, Stanislaus, Merced, Madera, Fresno, Tulare, Kings, and Kern make up the regional planning area under the San Joaquin Valley Blueprint. The San Joaquin Valley Blueprint (SJVB) process will develop a cohesive regional framework that defines and offers alternative solutions to growth related issues for the Valley. The process involves the integration of transportation, housing, land use, economic development, and the environment to produce a preferred growth scenario to the year 2050.

Although the SJVB has not been completed, each county was responsible for developing individual local blueprints to be integrated into the larger eight county blueprint. Under the coordination efforts of KCAG, a Kings County Blueprint Vision for urban growth has been defined that emphasizes city-centered urban growth, economic development, and agricultural preservation. This local blueprint effort resulted in defining a Blueprint Urban Growth Boundary for each of the four cities and four unincorporated community districts in Kings County.

On April 1, 2009 the San Joaquin Valley Regional Planning Agencies Policy Council (Policy Council) adopted a preferred growth scenario for the San Joaquin Valley which calls for increasing residential densities to 6.8 units per acre on average in all jurisdictions throughout the eight San Joaquin Valley counties included in the blueprint. During the same meeting the Policy Council also adopted twelve smart growth principles intended to be incorporated into local jurisdictions general plans.

Habitat Conservation Plans (HCPs). Several HCPs are in effect within the San Joaquin Valley bioregion, of which Kings County is a part. This includes the Pacific Gas and Electric (PG&E) San Joaquin Valley Operation & Maintenance Habitat Conservation Plan (December 2006). This HCP is designed to offset small-scale environmental impacts throughout the San Joaquin Valley of PG&E's widely dispersed operations. The HCP is unique in that it addresses small-scale impacts of specific activities over a very large geographical area. PG&E's HCP defines measures to minimize, avoid, and compensate for the effects of the utility's operations and maintenance activities on 65 native plants, animals, and their habitats in portions of nine counties, including San Joaquin, Stanislaus, Merced, Fresno, Kings, Kern, Mariposa, Madera, and Tulare counties. All of Kings County is included in the HCP Plan Area.

4.9.2 Impact Analysis

a. Methodology and Significance Thresholds. The discussion of land use impacts analyzes the draft 2035 General Plan's consistency with applicable policies of the various regional and local plans for the purposes of assessing the proposed General Plan's environmental impacts related to land use. An impact is considered significant if physical changes that could be facilitated by buildout of the 2035 General Plan would result in one or more of the following conditions, which are based upon the environmental checklist in Appendix G of the CEQA Guidelines:

- *Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect*
- *Conflict with any applicable habitat conservation plan or natural community conservation plan*

It should be noted that the draft 2035 General Plan is a countywide plan intended to provide for the orderly development of Kings County through the year 2035. As such, it would not physically divide an established community. The checklist item related to this condition was therefore excluded from the above list. In addition, although a HCP for the PG&E San Joaquin Valley operations covers all of Kings County, an update to the Kings County General Plan would not be expected to conflict with the HCP due to the long-range planning and mitigative nature of the General Plan. Specific impacts to biological resources, including sensitive habitats, are discussed in Section 4.4, *Biological Resources.*

Although the following analysis evaluates consistency with various regulatory policies, it should be noted that each individual agency (KCAG, LAFCo of Kings County) ultimately has the discretion to determine consistency of the 2035 General Plan with the policies, plans, and/or programs that fall within that agency's purview.

b. Project and Cumulative Impacts.

Impact LU-1 No boundary adjustments are being considered as part of the proposed General Plan Update. However, annexation requests could be sought at some point in the future under the General Plan. Because any conflicts with LAFCo policies would need to be resolved prior to LAFCo approval of any boundary adjustment, impacts would be Class III, *less than significant*.

No adjustments to the County's corporate boundaries are proposed at this time. However, the draft 2035 General Plan contains several goals, objectives, and policies which encourage annexation in certain instances, including:

> *Require new development in city fringe areas (except a single-family house or secondary dwelling unit on an existing lot) to annex to the city, and encourage existing developed fringe areas to annex to the city where the City is the closest and most logical municipal service provider (LU Objective E1.1).*

Specific analysis of individual proposals would be needed at the time such possible future boundary adjustments are proposed.

Mitigation Measures. No mitigation is required. Individual boundary adjustment proposals will need to be addressed by the County and LAFCo of Kings County on a case-by-case basis.

Significance After Mitigation. As the County is not seeking any boundary adjustments at this time, no inconsistencies with LAFCo policies would occur. Areas that may be considered for future annexation would not be eligible under current conditions; however, it is assumed that boundary adjustments would not be sought until such adjustments could be found to be consistent with state and local requirements.

Impact LU-2 The draft 2035 General Plan would be potentially consistent with the Kings County Association of Governments' RTP. Impacts would be Class III, *less than significant*.

The chief purpose of the KCAG 2007 RTP is to demonstrate ways that transportation can complement regional goals and objectives. The overall goal of the RTP is to:

> ***Overall Goal:*** *Develop and maintain a multi-modal transportation system which efficiently and safely moves people and goods, and which serves this region's social, economic, and physical needs.*

This goal is supported in part by the policies listed below. A discussion of the 2035 General Plan's consistency with each of the relevant RTP policies follows.

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

Transportation Systems Management Policy D: *Minimize the undesirable environmental impacts of existing transportation facilities and services.*

The environmental impacts of the 2035 General Plan Circulation Element are addressed throughout Section 4.0 of this EIR. Specifically, impacts relating to air quality, energy use, and noise are addressed in Sections 4.3, *Air Quality,* and 4.10, *Noise.* In addition, although overall traffic levels are likely to increase under buildout of the draft 2035 General Plan, the 2035 General Plan includes policies that would reduce likely increases in traffic. An intention of the 2035 General Plan is to focus future development in Kings County in areas that are already developed, which includes the communities of Armona, Home Garden, Kettleman City, and Stratford. Infill development reduces vehicle miles traveled (VMT) and associated air pollutant emissions and traffic related noise as compared to development on sites in the periphery of metropolitan areas. With implementation of applicable 2035 General Plan goals, objectives, and policies (outlined below), future development under the 2035 General Plan could be found to be consistent with the KCAG 2007 RTP Environmental Policy and Transportation Systems Management Policy D.

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

Intercity Rail and Bus Policy: *Preserve an effective and convenient intercity public transportation system of regularly scheduled bus and rail services.*

Non-Motorized 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.*

New development in accordance with the proposed 2035 General Plan would be subject to various General Plan transportation policies and actions listed above aimed at strengthening and balancing vehicle, bicycle, pedestrian, and transit connections in the County. With implementation of these policies and actions (outlined below), future development under the 2035 General Plan could be found to be consistent with the KCAG RTP Public Transit, Intercity Rail and Bus, and Non-Motorized Policies.

Highway System 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.*

Highway Safety 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.*

Goods Movement Policy: *Support the efforts of the trucking and rail industries to transport commodities safely and efficiently.*

Transportation Systems Management Policy A: *Maintain and improve the quality of the existing transportation system.*

Transportation Systems Management Policy B: *Increase the efficiency of the existing transportation system.*

Transportation Systems Management Policy C: *Minimize the costs to improve the quality and efficiency of the existing transportation system.*

As discussed in Section 4.14, *Transportation and Circulation*, the draft 2035 General Plan includes a number of policies designed to ensure the safety, adequate maintenance, and efficiency of operations on the portion of the multi-modal transportation system that lies within Kings County. By focusing future development in areas that are already developed as well as mixed-use and pedestrian-oriented development, implementation of the 2035 General Plan would result in a diverse, safe, and efficient transportation system that minimizes the need for system expansion investments.

The 2035 General Plan would exceed RTP population growth projections, which are based on Department of Finance projections (refer to Section 4.11, *Population and Housing*). Although the population at buildout of the 2035 General Plan would be greater than the population projections of the RTP, such a potential inconsistency would not result in physical environmental impacts. The physical environmental impacts that are associated with the growth that could occur under the 2035 General Plan have been analyzed and disclosed in Sections 4.1 through 4.15 of this document. Furthermore, an increase in population beyond growth projections would not preclude implementation of goals and policies of the RTP. In addition, the goals and policies of the RTP would be updated during the next update process accordingly to be consistent the growth that could occur under the 2035 General Plan. Therefore, buildout under the 2035 General Plan could be found to be consistent with KCAG 2007 RTP Highway System, Highway Safety, Goods Movement and Transportation Systems Policies listed above.

General Plan Policies which Reduce Impacts. The *2035 General Plan Land Use Element* includes the following objectives and policies that focus future development in Kings County in areas that are already developed.

LU OBJ C 1.1 *Prohibit the expansion of new residential, commercial and industrial land use designations within areas identified as Rural Interface.*

LU OBJ D1.1 *Accommodate future urban growth within the Community Districts by establishing Community Plans that are developed with community resident and stakeholder input.*

LU Policy D1.1.2 *Community Plans shall designate a variety and distribution of urban type land uses that include residential, commercial, industrial, open space and other public land uses that can accommodate future projected unincorporated growth.*

LU OBJ D1.2 *Establish Community Plan land use policies and associated improvement standards to integrate smart growth principles and compact urban design to revitalize existing communities.*

LU Policy D1.2.2 *Prioritize infill development of vacant and underutilized parcels within the existing special district boundaries where water and sewer service are available to reduce outward growth pressure and costly expansion of district facilities.*

The *2035 General Plan Circulation Element* includes the following goals, objectives, and policies that strengthen and balance vehicle, bicycle, pedestrian, and transit connections in the County, as well as ensure the safety, adequate maintenance, and efficiency of transportation system operations.

C Goal A1 *Provide a coordinated countywide circulation system with a variety of safe and efficient transportation alternatives and modes that interconnect cities, community districts, adult education facilities, and adjoining cities in neighboring counties, and meets the growing needs of residents, visitors and businesses.*

C Policy A1.2.1 *Coordinate land use planning with planned transportation facilities to make efficient use of the transportation system and reduce total vehicle miles traveled, vehicle emissions, and energy use through improved accessibility to schools, job centers, and commercial services.*

C OBJ A1.3 *Maintain an adequate Level of Service operation for County roadways and ensure proper maintenance occurs along critical routes for emergency response vehicles.*

C Goal B1 *Develop Community street design, centralized transportation options, and pedestrian walkability in each community plan and foster increased efficient mobility of residents to and from job centers, educational facilities, and services that meet their daily needs.*

C OBJ B1.1 *Establish community oriented street design and grid layout system that enhances the circulation of existing Community District residential and commercial areas, and areas of future growth.*

C OBJ B1.2 *Enhance pedestrian/bicycle access and safety through traffic calming street design measures and bicycle rack integration into new commercial structures.*

C Policy B1.2.1 *Adopt traffic calming street design standards into the County's "Improvement Standards" to make available "Pedestrian Friendly" street design alternatives along Community District streets.*

C Policy B1.2.3 *Integrate pedestrian infrastructure that includes sidewalks, tree lined streets, and traffic calming crossings to balance both car and people use of neighborhood streets in new mixed use development.*

C OBJ B1.3 *Ensure sufficient traffic levels of service are maintained as growth and development occurs within the County's Community Districts which serve to accommodate future urban growth within the unincorporated areas of the County.*

C Goal C1 *Integrate through the County's regional transportation system, an efficient and coordinated goods and people moving network of Highways, Railroads, Public Transit, and Non-Motorized options that reduce overall fuel consumption and associated air emissions.*

C OBJ C1.1 *Maintain, upgrade and complete a regional system of Highways and Streets throughout the County that is convenient, safe, cost effective and efficient, and continues to meet the needs of highway users.*

C OBJ C1.2 *Ensure the continued operational effectiveness of rail lines throughout the County, and ensure the preservation of rail right-of-way for future transportation alternative use.*

C OBJ C1.3 *Promote Public Transit and vanpooling within the County urbanized areas to increase ridership and decrease traffic demand on County roadways.*

C OBJ C1.4 *Integrate Non-Motorized transportation system alternatives into the layout of Community District plans to promote bicycling and walking as alternatives to the automobile, and interconnect those routes where practical into larger regional efforts with Cities.*

Mitigation Measures. The draft 2035 General Plan is potentially consistent with the KCAG 2007 RTP. No mitigation is required.

Significance After Mitigation. The draft 2035 General Plan is potentially consistent with the KCAG 2007 RTP. Impacts would be less than significant.

Impact LU-3 The 2035 General Plan would be potentially consistent with the Kings County Blueprint Vision. Impacts would be Class III, *less than significant*.

KCAG has prepared a Kings County Blueprint Vision to contribute Kings County's vision to the greater San Joaquin Valley Blueprint (SJVB) effort. The SJVB, once completed, will provide a comprehensive and integrated decision-making tool that combines currently separate and distinct data sets into a single one that will allow for scenario planning, more efficient use of resources, and an understanding of regional impacts and solutions. The Kings County Blueprint Vision will contribute to this larger effort. A discussion of consistency with the identified vision and values applicable to the 2035 General Plan follows.

Vision:

Before 2050 Kings County will:

- *Have a healthy and sustainable environment, which encourages smart growth and development that enhances and preserves our air quality, aquifers, surface waters, agricultural lands, soil, and wildlife resources while strengthening our economic vitality and diversity.*
- *Be composed of unique cities, rural areas, and communities with a diverse population.*
- *Have a multifaceted transportation system that addresses growth and enhances the ability to sustain even more growth and development in the future.*

- *Become an innovative, energetic, healthy, and inclusive community with a common sense of pride and shared commitment to the effective and efficient utilization of resources and Quality of Life ideals.*

Values:

- *Continue to work towards clean air for the benefit of all residents.*
- *Provide a wide range of well designed housing choices in every community.*
- *Promote well designed and safe communities for all residents.*
- *Protect natural resources including native species, vegetation, rivers, and habitats.*
- *Preserve agricultural lands.*
- *Secure reliable sources of water maintaining both water quality and quantity.*
- *Create an effective multi-modal transportation system that allows for the greatest convenience and accessibility throughout the County and connecting to the greater San Joaquin Valley, while minimizing the impacts on land use.*
- *Preserve open and green spaces for both conservation and recreation opportunities.*

One of the major underlying goals of the 2035 General Plan update is to integrate smart growth principles and compact centralized growth in the County's four unincorporated communities. Detailed Community Plans for each community district are intended to foster sustainable community strategies that are locally defined and unique to each respective community's resources and constraints. Common themes reflected in the Community District land use changes are centered on downtown revitalization, alternative transportation mode accessibility, and other quality of life enhancements. The 2035 General Plan would therefore be potentially consistent with the KCAG vision for a healthy and sustainable environment.

As discussed under Impact LU-2 above, the draft 2035 General Plan includes a number of policies designed to ensure the safety, adequate maintenance, and efficiency of operations on the portion of the multi-modal transportation system that lies within Kings County. By focusing future development in areas that are already developed as well as mixed-use and pedestrian-oriented development, implementation of the 2035 General Plan would result in a diverse, safe, and efficient transportation system that minimizes the need for system expansion investments. In addition, an intention of the 2035 General Plan is to focus future development in Kings County in areas that are already developed. Infill development reduces VMT and associated air pollutant emissions as compared to development on sites in the periphery of incorporated cities and rural community areas. The 2035 General Plan would therefore be potentially consistent with the KCAG vision for a multifaceted transportation system and values related to clean air and transportation.

As discussed in Section 2.0, *Project Description*, the draft 2035 General Plan promotes a mix of housing to meet the needs of Kings County. In addition, the 2035 General Plan focuses mainly on intensification and reuse of already developed areas within the County and would facilitate only limited development in undeveloped areas. Infill development would generally avoid direct impacts to natural resources including native species, vegetation, rivers, and habitats. As noted in Section 4.4, *Biological Resources,* the draft 2035 General Plan includes numerous goals and policies intended to limit impacts to biological resources. The 2035 General Plan would therefore be potentially consistent with the KCAG values related to the natural environment.

As noted in Section 4.2, *Agricultural Resources,* the 2035 General Plan and Community Plans contain numerous policies that would limit impacts related to agricultural lands conversion, and protect the viability of existing agricultural resources. The General Plan's promotion of compact centralized growth in the County's four unincorporated communities would further preserve agricultural lands, as well as preserve open space and green space areas to the extent feasible. The 2035 General Plan would therefore be potentially consistent with the KCAG values related to agriculture and open space.

As discussed in Section 4.15, Utilities and Service Systems, the 2035 General Plan and Community Plans would increase demand for water and wastewater services. However, the General Plan and Community Plans includes several polices that would limit impacts to water resources and wastewater facilities, as the policies preclude development where such project cannot demonstrate adequate water and wastewater services. The 2035 General Plan and Community Plans would therefore be potentially consistent with the KCAG values related to water supply and water quality.

General Plan Policies which Reduce Impacts. The *2035 General Plan Land Use Element* includes the following goal, objectives, and policy that integrate smart growth principles and promote a healthy and sustainable environment, as well as promote quality of life ideals.

LU Goal D1 *Community Districts establish sustainable community areas that meet the needs of existing residents and serve to accommodate unincorporated urban growth that is guided according to individual Community Plans.*

LU OBJ D1.1 *Accommodate future urban growth within the Community Districts by establishing Community Plans that are developed with community resident and stakeholder input.*

LU Policy D1.1.1 *Community Plans shall be developed, maintained and implemented in a manner that engages community participation and works toward quality of life improvements.*

LU OBJ D1.2 *Establish Community Plan land use policies and associated improvement standards to integrate smart growth principles and compact urban design to revitalize existing communities.*

LU OBJ D1.3 *Preserve the identity of rural communities and enhance the sustainability of these unincorporated communities by improving the quality of life for residents, visitors, and business owners.*

The *2035 General Plan Circulation Element* includes the following goals, objectives, and policies that related to a multifaceted transportation system.

C Goal A1 *Provide a coordinated countywide circulation system with a variety of safe and efficient transportation alternatives and modes that interconnect cities, community districts, adult education facilities, and adjoining cities in neighboring counties, and meets the growing needs of residents, visitors and businesses.*

C Policy A1.2.1	*Coordinate land use planning with planned transportation facilities to make efficient use of the transportation system and reduce total vehicle miles traveled, vehicle emissions, and energy use through improved accessibility to schools, job centers, and commercial services.*
C OBJ A1.3	*Maintain an adequate Level of Service operation for County roadways and ensure proper maintenance occurs along critical routes for emergency response vehicles.*
C Goal B1	*Develop Community street design, centralized transportation options, and pedestrian walkability in each community plan and foster increased efficient mobility of residents to and from job centers, educational facilities, and services that meet their daily needs.*
C Policy B1.2.1	*Adopt traffic calming street design standards into the County's "Improvement Standards" to make available "Pedestrian Friendly" street design alternatives along Community District streets.*
C Policy B1.2.3	*Integrate pedestrian infrastructure that includes sidewalks, tree lined streets, and traffic calming crossings to balance both car and people use of neighborhood streets in new mixed use development.*
C Goal C1	*Integrate through the County's regional transportation system, an efficient and coordinated goods and people moving network of Highways, Railroads, Public Transit, and Non-Motorized options that reduce overall fuel consumption and associated air emissions.*
C OBJ C1.1	*Maintain, upgrade and complete a regional system of Highways and Streets throughout the County that is convenient, safe, cost effective and efficient, and continues to meet the needs of highway users.*
C OBJ C1.2	*Ensure the continued operational effectiveness of rail lines throughout the County, and ensure the preservation of rail right-of-way for future transportation alternative use.*
C OBJ C1.3	*Promote Public Transit and vanpooling within the County urbanized areas to increase ridership and decrease traffic demand on County roadways.*
C OBJ C1.4	*Integrate Non-Motorized transportation system alternatives into the layout of Community District plans to promote bicycling and walking as alternatives to the automobile, and interconnect those routes where practical into larger regional efforts with Cities.*

The *2003-2008 General Plan Housing Element* includes the following goals and policies which seek to provide a wide range of well designed housing choices in every community.

Goal 1	*Improve and maintain the quality of housing and residential neighborhoods.*

Policy 1.1	*Promote and improve the quality of residential properties by ensuring compliance with housing and property maintenance standards.*
Goal 2	*Facilitate and encourage the provision of a range of housing types and prices to meet the diverse needs of residents.*
Goal 3	*Remove or mitigate, to the extent feasible and appropriate, potential governmental constraints to the production, maintenance, improvement and affordability of housing.*
Policy 3.1	*Offer regulatory and/or financial incentives, as available and appropriate, to encourage the construction of quality housing.*

The *2035 General Plan Resource Conservation Element* includes the following goals, objectives, and policies that protect natural resources.

RC Goal D1	*Preserve land that contains important natural plant and animal habitats.*
RC OBJ D1.1	*Require that development in or adjacent to important natural plant and animal habitats minimize the disruption of such habitats.*
RC Policy D1.1.1	*Evaluate all discretionary land use applications in accordance with the screening procedures contained in the Biological Resources Survey located in Appendix C. If the results of the project screening indicates the potential for important biological resources to exist on the site a biological evaluation (consistent with Appendix C) shall be performed by a qualified biologist. If the evaluation indicates that the project could have a significant adverse impact, mitigation shall be required or the project will be redesigned to avoid such impacts. Mitigation shall be provided consistent with the California Environmental Quality Act (CEQA), and applicable state and federal guidelines as appropriate. Mitigation may include habitat improvement or protection, acquisition of other habitat, or payment to an appropriate agency to purchase, improve, or protect such habitat.*
RC Goal D2	*Maintain the quality of existing natural wetland areas as required by the California Department of Fish and Game, the United States Fish and Wildlife Service and the United States Army Corp of Engineers.*
RC OBJ D2.1	*Maintain compatible land uses in natural wetland habitats designated by state and federal agencies.*
RC Policy D2.1.1	*Follow state and federal guidelines for the protection of natural wetlands. Require developers to obtain authorization from the appropriate local, state, or federal agency prior to commencement of any wetland fill activities.*
RC Policy D2.1.2	*Use the California Environmental Quality Act (CEQA) process to assess wetland resources, and require mitigation measures for development which could adversely impact a designated wetland.*

RC Goal D3	*Protect and manage riparian environments as valuable resources.*
RC OBJ D3.1	*Ensure that, in development decisions affecting riparian environments, the conservation of fish and wildlife habitat and the protection of scenic qualities are balanced with other purposes representing basic health, safety, and economic needs.*
RC Policy D3.1.3	*Evaluate the potential impact on the riparian environment of proposed development adjacent to the Kings River, beyond the boundaries of the designated floodway. Conservation of fish and wildlife habitat and protection of scenic qualities should be the guiding principle.*
RC Goal E1	*Balance the protection of the County's diverse plant and animal communities with the County's economic needs.*
RC OBJ E1.1	*Require mitigation measures to protect important plant and wildlife habitats.*
RC Policy E1.1.3	*Maintain to the maximum extent practical the natural plant communities utilized as habitat by threatened and endangered species (see Appendix C for a listing and map of these plant communities).*
RC Goal F1	*Manage natural stream environments to provide protection for fish habitat.*

The *2035 General Plan Land Use Element* includes the following goals, objectives, and policies that preserve agricultural lands.

LU Goal B1	*Protect agricultural lands throughout the County, and in particular along the edges of Community Districts and Urban Fringe by maintaining large parcel sizes and preventing the premature development of incompatible urban uses.*
LU OBJ B1.1	*Preserve the integrity of the County's agricultural land resources through agricultural land use designations and other long term preservation policies.*
LU Policy B1.1.1	*Designate all agricultural and grazing land outside of planned urban areas as Limited Agriculture, General Agriculture, Exclusive Agriculture, or Natural Resource Conservation.*
LU Policy B1.1.2	*Continue to use Williamson Act and Farmland Security Zone contracts on all priority agricultural lands outside the Primary Sphere of Influence of City and Community District boundaries as defined by LAFCO, so long as State "Open Space Subvention Act" funds remain available.*
LU OBJ B1.2	*Maintain large parcel sizes of agricultural designated land within Urban Fringe areas and around Community Districts to retain viable agricultural production until such time as land is planned and ready for conversion to other uses.*

LU Goal B2 *Agricultural production continues to be supported and enhanced in areas designated for agriculture, while conflicts between agriculture and non-agricultural uses are minimized.*

LU OBJ B2.1 *Recognize agriculture as the highest and best use of agricultural designated land, and preserve the right of farmers and agricultural operations to continue customary and usual agricultural practices, and operate in the most efficient manner possible.*

LU Policy B2.1.1 *The primary use of land designated Limited Agriculture, General Agriculture, and Exclusive Agriculture shall remain devoted to agricultural uses and related support services.*

LU Policy B2.1.3 *Maintain implementation of the County's "Right to Farm Ordinance" adopted in 1996 to continue placing land owners on notice that they live within an agricultural County and may be subject to agriculture related inconveniences or discomforts.*

The *2035 General Plan Resource Conservation Element* additionally includes the following goal, objectives, and policy that preserve agricultural lands.

RC Goal B1 *Maintain viable and productive agricultural land within the County, and ensure the long term preservation of the County's agricultural resources continue to provide a sustainable food supply and supports a vibrant local agricultural economy.*

RC OBJ B1.1 *Identify the County's highest priority agricultural lands that are critical to the County's agricultural economy, prime soils, and water availability, and emphasize higher preservation efforts for these areas.*

RC OBJ B1.2 *Establish feasible mitigation for the loss of agricultural land conversion that is not over burdensome to landowner and development interests, yet enhances long term preservation efforts of the County's highest priority agricultural lands.*

RC Policy B1.2.2 *Conversion of agricultural land to urban uses shall require payment of mitigation fees that are based on average per acre fee for the establishment of a new Farmland Security Zone creation. All mitigation costs shall be borne by project proponent(s).*

RC OBJ B1.3 *Balance the long term preservation of the County's agricultural resources with areas planned to accommodate urban growth within Cities and Community Districts, and prioritize the creation of Farmland Security Zone contracts on land outside the Blueprint Urban Growth Boundaries (refer to Figure RC-14) as defined by the Kings County Association of Governments to ensure long term preservation of the County's vital agricultural resources in areas not planned to accommodate future projected urban growth.*

The *2035 General Plan Resource Conservation Element* includes the following goal, objectives, and policies that help secure reliable and clean sources of water.

RC Goal A1	*Beneficially use, efficiently manage, and protect water resources while developing strategies to capture additional water sources that may become available to ensure long-term sustainable water supplies for the region.*
RC OBJ A1.1	*Maintain and Protect Existing Water Supplies.*
RC Policy A1.1.1	*Cooperate with water purveyors and water management agencies to manage groundwater resources within the County to assure an adequate, safe and reliable groundwater supply for existing and future water users.*
RC Policy A1.1.2	*Review new discretionary development proposals, including new or expanded uses within agricultural zone districts, to ensure that there are adequate water supplies to accommodate such uses. Projects should provide evidence of adequate and sustainable water availability prior to approval of a tentative map or other land use approval.*
RC OBJ A1.2	*Conserve and reuse water to provide for the efficient use of water resources.*
RC OBJ A1.3	*Secure additional water supply sources to meet current and future water demand.*
RC Policy A1.3.1	*Participate with and encourage all state, regional and local efforts to develop new or expanded water supplies that may serve Kings County.*
RC Policy A1.3.2	*Evaluate new urban development for compliance to SB610 and SB221 to ensure that adequate water supply sources and facilities are available to accommodate the new demand that would be created by such development.*
RC OBJ A1.4	*Protect the quality of surface water and groundwater resources in accordance with applicable federal, state and regional requirements and regulations.*
RC Policy A1.4.1	*Evaluate proposed land uses and development projects for their potential to create surface and groundwater contamination from point and non-point sources. Confer with other appropriate agencies, as necessary, to assure adequate water quality review to prevent soil erosion; direct discharge of potentially harmful substances; ground leaching from storage of raw materials, petroleum products or waste; floating debris; and runoff from the site.*
RC Policy A1.4.2	*Monitor and enforce provisions to control water pollution contained in the U.S. EPA National Pollutant Discharge Elimination System (NPDES) program as implemented by the California Water Quality Control Board, Central Valley Region.*

RC Policy A1.4.3 *Require the use of feasible and cost-effective Best Management Practices (BMPs) and other measures designed to protect surface water and groundwater from the adverse effects of construction activities and urban and agricultural runoff in coordination with the California Water Quality Control Board, Central Valley Region.*

RC Policy A1.4.4 *Encourage and support the identification of degraded surface water and groundwater resources and promote restoration where appropriate.*

RC OBJ A1.5 *Avoid the placement of potential pollution sources in areas that have the potential to foster groundwater recharge.*

RC OBJ A1.6 *Protect groundwater quality by applying development standards which seek to prevent pollution of surface or groundwater and net loss of natural water features.*

RC Policy A1.6.1 *Require subdivisions with lot sizes of less than one acre to connect to the sewer and water services of a city or community district.*

RC Policy A1.6.2 *Support measures to ensure that water users do not unreasonably use groundwater resources.*

RC Policy A1.6.3 *Protect groundwater by enforcing the requirements for installation of wells in conformity with the California Water Code, the Kings County Well Ordinance, and other pertinent state and local requirements.*

Mitigation Measures. With implementation of 2035 General Plan policies, future development under the draft 2035 General Plan would be potentially consistent with the Kings County Blueprint Vision. No mitigation is required.

Significance After Mitigation. Future development under the draft 2035 General Plan would be potentially consistent with the Kings County Blueprint Vision. Impacts would be less than significant.

4.10 NOISE

This section considers the existing noise levels and analyzes the impacts associated with exposure to noise. Impacts relating to noise from traffic, industrial, commercial, agricultural uses, railroads, and airports are addressed.

4.10.1 Setting

a. Overview of Sound Measurement. Noise level (or volume) is generally measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound power levels to be consistent with that of human hearing response, which is most sensitive to frequencies around 4,000 Hertz (about the highest note on a piano) and less sensitive to low frequencies (below 100 Hertz). In addition to the actual instantaneous measurement of sound levels, the duration of sound is important since sounds that occur over a long period of time are more likely to be an annoyance or cause direct physical damage or environmental stress. One of the most frequently used noise metrics that considers both duration and sound power level is the equivalent noise level (Leq). The Leq is defined as the single steady A-weighted level that is equivalent to the same amount of energy as that contained in the actual fluctuating levels over a period of time. Typically, Leq is summed over a one-hour period.

The sound pressure level is measured on a logarithmic scale with the 0 dB level based on the lowest detectable sound pressure level that people can perceive (an audible sound that is not zero sound pressure level). Decibels cannot be added arithmetically, but rather are added on a logarithmic basis. Based on the logarithmic scale, a doubling of sound energy is equivalent to an increase of 3 dB. Because of the nature of the human ear, a sound must be about 10 dB greater than the reference sound to be judged as twice as loud. In general, a 3 dB change in community noise levels is noticeable, while 1-2 dB changes generally are not perceived. Quiet suburban areas typically have noise levels in the range of 40-50 dBA, while those along arterial streets are in the 50-60+ dBA range. Normal conversational levels are in the 60-65 dBA range and ambient noise levels greater than that can interrupt conversations.

Noise levels typically attenuate at a rate of 6 dB per doubling of distance from point sources such as industrial machinery (Harris, 1979). For example, a person standing 25 feet from an industrial machine may experience noise levels of 75 dBA, while a person standing 50 feet from the same noise source would experience noise levels of 69 dBA, and a person standing 100 feet from the source would experience noise levels of 63 dBA. Noise from lightly traveled roads typically attenuates at a rate of about 4.5 dB per doubling of distance. Noise from heavily traveled roads typically attenuates at about 3 dB per doubling of distance (Harris, 1979).

The actual time period in which noise occurs is also important since noise that occurs at night tends to be more disturbing than that which occurs during the daytime. The Day-Night average level (Ldn) recognizes this characteristic by weighting the hourly Leqs over a 24-hour period. The weighting involves the addition of 10 dBA to actual nighttime (10 PM to 7 AM) noise levels, accounting for the greater amount of disturbance associated with noise during that time period.

Kings County's current (1993) Noise Element establishes noise standards for the range of uses present in and around the County. These standards are used to determine whether proposed new development in the county requires mitigation to avoid potential land use conflicts. Land use categories where a quiet environment is particularly desirable include residential, transient lodging (e.g., hotels, motels, and RV parks), and noise-sensitive institutional uses (e.g., hospitals, school, nursing homes, churches, and libraries).

The interior and exterior noise standards (see Table 4.10-1) establish maximum noise levels that are allowable for new development in Kings County. Under the existing General Plan, this matrix is used to determine whether a proposed new use would be compatible with the ambient noise environment in which it is proposed as well as whether or not the proposed new use would create noise compatibility conflicts with established uses. For the most sensitive uses such as most residences, hotels/motels, and noise-sensitive institutional uses, 65 dBA Ldn is the maximum normally acceptable exterior level. The normally acceptable noise exposure for outdoor activity is 65 dBA Ldn for retail, restaurant, professional office, hospital, school, church, library, and other similarly sensitive uses. The normally acceptable noise exposure for single-family residences is 60 Ldn. This exterior standard is comparable to the 65 dBA L_{eq}, which is used by the California Department of Transportation (Caltrans) and the Federal Highway Administration (FHWA).

Table 4.10-1. 1993 Noise Element Interior and Exterior Noise Standards

Land Use Receptors	Exterior Noise Exposure Allowances (Ldn)			Interior Noise Exposure Allowances (Ldn)	
	Acceptable	Conditionally Acceptable	Unacceptable	Acceptable	Unacceptable
Agricultural	< 70	70 - 75	> 75	-	-
Commercial	< 70	70 - 75	> 75	-	-
Industrial	< 70	70 - 75	> 75	-	-
Institutional (Noise-Sensitive)	< 65	65 - 70	> 70	< 45	> 45
Institutional (Non-Noise-Sensitive)	-	< 70	> 70	-	-
Outdoor Activities	< 70	-	> 70	-	-
Outdoor Recreation	< 70	-	> 70	-	-
Recreational	-	-	> 70	-	-
Residential (Multiple Family)	< 65	65 - 70	> 70	< 45	> 45
Residential (Single Family)	< 60	60 - 70	> 70	< 45	> 45
Residential (Rural Residential)	< 65	65 - 70	> 70	< 45	> 45
Transient Lodging (Motels, Hotels, RV Parks)	< 65	65 - 70	> 70	< 45	> 45

Note: The above table applies both to encroachment on new land uses by existing noise sources, and to encroachment on existing land uses by new noise sources.
When noise is measures in hourly Leq, 50 Leq shall be the equivalent for 60 Ldn or CNEL.

b. Sensitive Receptors. Noise level allowances for various types of land uses reflect the varying noise sensitivities associated with those uses. Residences, hotels/motels , hospitals, schools, and libraries are some of the most sensitive land uses to noise intrusion and therefore have more stringent noise level allowances than most commercial or agricultural uses that are not subject to impacts such as sleep disturbance. Noise sensitive residential areas are located throughout Kings County. For the most part, noise sensitive uses are located in quiet areas lacking major noise sources. However, residences and schools located adjacent to major roadways such as State Routes 33, 41, 43, 137, 198, as well as other local high-volume streets may experience elevated noise levels.

c. Current Noise Levels in Kings County. The ambient noise environment in Kings County is defined by traffic on highways and county roadways**,** commercial and industrial uses, agricultural uses, railroad operations on the Burlington Northern Santa Fe (BNSF) Railroad and the San Joaquin Valley Railroad (SJVR), and aircraft**.**

Highway/Roadway Noise. Streets and Highways throughout the County are identified as the most extensive source of mobile noise in the County. The County has one Interstate and three well-traveled State Routes traversing the County. Three of the four unincorporated community districts are bisected by a State Route, with State Route 198 crossing through Armona, and State Route 41 crossing through both Stratford and Kettleman City. Many of the County-maintained avenues are also used by cross traffic between cities and communities. Home Garden has 10th Avenue crossing through and Houston Avenue bordering along the south edge of the community. Highway noise is related to such factors as vehicle speed, traffic volume, degree of exhaust muffling, roadway condition, and composition of roadway traffic – trucks produce more noise, and noise of a difference character, than passenger cars.

Industrial and Commercial Operations. Industrial and commercial operations can be substantial sources of noise, depending on the type and hours of operation. Existing or planned commercial/industrial operations may result in noise impacts when they are adjacent to noise sensitive land uses. Noise generation within industrial and commercial facilities or in close proximity to many types of agricultural equipment are controlled by federal and state employee health and safety regulations (e.g., OSHA and Cal-OSHA), but exterior noise from such operations may exceed locally acceptable standards at nearby noise-sensitive land uses. Typical commercial and industrial noise sources include loading dock operations, parking lot activity, on-site equipment (including heating and air conditioning), and heavy truck idling. Other stationary noise sources of concern typically include generators, pumps, air compressors, outdoor speakers, motors, heavy equipment, and similar machinery.

Examples of industrial locations that contribute to the local noise environment include Kings Industrial Park in Hanford, the Corcoran Industrial Park, and the Crisp Grain Mill in Stratford.

Agricultural Operations. Farming operations are common throughout nearly all of Kings County except the mountainous areas to the southwest and heavily developed areas within the larger communities.

Some of the more common noise sources associated with farming operations include tractors, harvesting equipment, spray equipment, cotton ginning operations, aerial cropdusters, and stationary power sources, including internal combustion pump engines. Maximum noise levels

generated by farm-related tractors typically range from 77 to 85 dB at a distance of 50 feet from the tractor, depending on the horsepower of the tractor and the operating conditions. Due to the seasonal nature of the agricultural industry, there are often extended periods of time when no noise is generated on properties, which are actively being farmed, followed by short-term periods of intensive mechanical equipment usage and corresponding noise generation. Due to this high degree of variability of agricultural activities, it is not feasible to reliably quantify the noise generation of agricultural uses in terms of noise standards commonly utilized to assess impacts of other noise sources. However, these uses generate short-term periods of elevated noise during all hours of the day and night and possess the potential to generate adverse public reaction during intensive farm-related activities.

Hail Cannons are used in the County by some agricultural operations in an attempt to prevent or limit damage to crops caused by hailstorms. These cannons generate high noise levels with the general theory that the shock wave from the noise will prevent hail from forming in the clouds. There are differing opinions as to the effectiveness of these cannons, but they are used within the County and should be considered a significant source of noise during land use planning decisions. Hail cannons are identified as crop protection equipment and are not specifically regulated sound uses.

Agricultural uses within the County are protected by the County's Right-to-Farm Ordinance. The Ordinance recognizes that "…agricultural activities and operations, including, but not limited to, equipment and animal noise; …are conducted on a 24-hour a day, seven-day a week basis…" in these agricultural areas of the County. Therefore, normal and usual agricultural operation creating elevated sound levels are not normally considered a nuisance.

Railroads. Railroad operations within the County consist of the SJVRR operating along the east-west railroad line and the BN&SF and Amtrak operating along the north-south railroad line. Railroad operations along the SJVRR track consist of approximately one to two trains per week. More frequent train trips occur along the north-south rail lines with daily Amtrak passenger trips, and freight trips departing from Hanford and Corcoran industrial parks.

Airports. Several Kings County airfields generate noise that impacts surrounding areas. The airports and aircraft used throughout the County include public, private, and military operations. Existing airport facilities within the county include the Hanford Municipal Airport, Corcoran Airport, Naval Air Station Lemoore (NAS Lemoore), several private airstrips, and agricultural cropduster airstrips.

The NAS Lemoore is one of four Navy master jet bases in the United States, and is the home port for all active−duty, light−attack aircraft squadrons assigned to the Pacific Fleet. The station is located in the western sections of Kings and Fresno Counties. NAS Lemoore occupies 18,784 acres and controls an additional 10,020 acres in air space. From 2002-2006, aircraft operations at NAS Lemoore totaled an average of 210,000 operations per year.

Serving the majority of aviation demand is the Hanford Municipal Airport, south of State Route 198 in the southeastern part of the City of Hanford. Hanford Municipal Airport is the only city-owned air facility in the County. There is one air charter service available and approximately 70 aircraft are based at the airport. Several crop dusters are also based at the airport.

Serving as a basic utility airport, Corcoran Airport is the second busiest public-use airport in Kings County. The airfield is located on the west side of the City of Corcoran on Whitley Avenue and occupies 220 acres, which includes agricultural acreage. Approximately 5,000 operations originate from the field at present. There are accommodations for a total of 20 aircraft to be parked at the airport. The Comprehensive Land Use Plan (CLUP) for Corcoran Airport contains noise exposure contours.

Located adjacent to the City of Avenal off State Route 33, the Avenal Airport encompasses 83 acres, which includes one runway consisting of compacted earth with some stabilization. Two planes are based at the airport as well as several gliders owned by members of the soaring club. Noise impacts are not currently 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.

There are several airfields used by crop dusters and personal aircraft throughout the County. These facilities range in size from 1,000-foot unnamed and unpaved landing strips, to somewhat larger airfields with asphalt and lighted runways. Noise generated by crop-dusting activities varies, depending on the type of aircraft used and the proximity of the receiver to the operating aircraft. Noise generated by small aircraft activity contributes to the ambient noise environment in the vicinity of these airfields.

d. Regulatory Setting. As required by Section 65302 of the Government Code of California, desirable noise levels are embodied within the Noise Element of General Plans. Division 28 of the California Health and Safety Code requires that the State Office of Noise Control within the Department of Health Services develop model elements and model noise ordinances for consideration by local jurisdictions in developing noise standards.

As discussed earlier, Table 4.10-1 outlines the existing noise standards for Kings County, based upon the California Office of Planning and Research (OPR) Noise Element Guidelines. The objective of noise standards is to provide the community with a means of judging the noise environment that it deems to be generally acceptable.

4.10.2 Impact Analysis

a. Methodology and Significance Thresholds. The analysis of noise impacts focuses upon the draft General Plan's impact to noise-sensitive land uses within Kings County and the impact of existing noise sources upon county residents. The 2035 General Plan would result in potentially significant impacts if development facilitated by the General Plan would result in any of the following conditions:

- *Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;*
- *Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels;*
- *A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;*
- *A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;*

- *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels; or*
- *For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?*

The FHWA Highway Traffic Noise Prediction Model was used to predict existing and future traffic noise levels within Kings County. The FHWA Model is the traffic noise prediction model currently preferred by the FHWA, Caltrans, and most county governments for use in traffic noise assessment.

Noise contours were created from the FHWA model results for the purposes of evaluating whether a given increase in noise is "substantial." A "substantial" increase in traffic noise is defined by the Federal Interagency Committee on Noise (FICON) recommendations. These are shown in Table 4.10-2.

Table 4.10-2. Significance of Changes in Operational Roadway Noise Exposure

Post-Project Noise Level (CNEL)	Significant Impact
< 60 dB	+ 5.0 dB or more
60 – 65 dB	+ 3.0 dB or more
> 65 dB	+ 1.5 dB or more

b. Project and Cumulative Impacts.

Impact N-1 **New development facilitated by the 2035 General Plan could result in exposure of future residences and other noise-sensitive land uses to noise levels exceeding the "acceptable" range. However, implementation of noise attenuation features on new development, as required by draft General Plan policies, would reduce impacts to a Class III, *less than significant*, level.**

The 2035 General Plan would facilitate the development of new residential and other noise-sensitive uses that could be exposed to long-term noise exceeding acceptable levels shown in Table 4.10-1. The draft General Plan Noise Element would update the acceptable noise standards, as reflected in Tables 4.10-3 and 4.10-4. Potential sources of noise exposure include: (1) traffic on Interstate 5, local state routes, and countywide arterial roadways; and (2) commercial, industrial, and agricultural activity on sites that are adjacent to or near noise-sensitive uses.

The FHWA Model was used with existing and future traffic data to develop L_{dn} contours for the major highways and roadways within Kings County. The *2035 General Plan Noise Element* depicts the distances from the centerlines of major roadways to the 60, 65 and 70 dB L_{dn} contours for existing (2006) and future (2035) conditions. On the ground these distances may be less than modeled because of topographic attenuation and intervening buildings.

The mixed-use districts identified on the draft General Plan land use map would potentially expose residences to noise from various roadways as well as from commercial activity.

Table 4.10-3. Noise Standards for New Uses Affected by Transportation Noise Sources

New Land Use	Sensitive[1] Outdoor Area - CNEL	Sensitive Interior[2] Area - CNEL
Residential	60	45 [5]
Residences in Ag. Zones	65 [6]	45
Transient Lodging	65 [3]	45 [5]
Hospitals & Nursing Homes	60 [3, 4]	45 [5]
Theaters & Auditoriums	--- [3]	35
Churches, Meeting Halls Schools, Libraries, etc.	60 [3]	40
Office Buildings	65 [3]	45
Commercial Buildings	65 [3]	50
Playgrounds, Parks, etc.	70	---
Industry	65 [3]	50

[1] Sensitive areas are defined acoustic terminology section.
[2] Interior noise level standards are applied within noise-sensitive areas of the various land uses, with windows and doors in the closed positions.
[3] Where there are no sensitive exterior spaces proposed for these uses, only the interior noise level standard shall apply.
[4] Hospitals are often noise-generating uses. The exterior noise level standards for hospitals are applicable only at clearly identified areas designated for outdoor relaxation by either hospital staff or patients.
[5] If this use is affected by railroad or aircraft noise, a maximum (L_{max}) noise level standard of 70 dB shall be applied to all sleeping rooms with windows closed to reduce the potential for sleep disturbance during nighttime noise events.
[6] Due to the noise-generating nature of agricultural activities, it is understood that residences constructed on agriculturally-designated land uses may be exposed to elevated noise levels. As a result, a 65 dB CNEL exterior noise level standard is applied to noise-sensitive outdoor areas of these uses.

Table 4.10-4. Non-Transportation Noise Standards Average (Leq) / Maximum (Lmax)[1]

Receiving Land Use	Outdoor Area[2]		Interior[3]
	Daytime	Nighttime	Day & Night
All Residential	55 / 75	50 / 70	35 / 55
Transient Lodging	55 / 75	--- [4]	35 / 55
Hospitals & Nursing Homes	55 / 75 [6]	--- [5, 6]	35 / 55
Theaters & Auditoriums	---	--- [6]	30 / 50
Churches, Meeting Halls, Schools, Libraries, etc.	55 / 75	--- [6]	35 / 60
Office Buildings	60 / 75	--- [6]	45 / 65
Commercial Buildings	55 / 75	--- [6]	45 / 65
Playgrounds, Parks, etc.	65 / 75	--- [6]	---
Industry	60 / 80	--- [6]	50 / 70

[1] The Table N-8 standards shall be reduced by 5 dB for sounds consisting primarily of speech or music, and for recurring impulsive sounds. If the existing ambient noise level exceeds the standards of Table N-8, then the noise level standards shall be increased at 5 dB increments to encompass the ambient.
[2] Sensitive areas are defined acoustic terminology section.
[3] Interior noise level standards are applied within noise-sensitive areas of the various land uses, with windows and doors in the closed positions.
[4] Outdoor activity areas of transient lodging facilities are not commonly used during nighttime hours.
[5] Hospitals are often noise-generating uses. The exterior noise level standards for hospitals are applicable only at clearly identified areas designated for outdoor relaxation by either hospital staff or patients.
[6] The outdoor activity areas of these uses (if any), are not typically utilized during nighttime hours.

For most sites, the primary generator of noise that could affect noise-sensitive uses would be roadway traffic. Table 4.10-5 illustrates the roadway noise contours that are anticipated to occur with maximum development under the 2035 General Plan. As indicated, residential development within as much as 380 feet of State Route 41 could potentially be exposed to noise

exceeding 65 dBA CNEL. Such noise exposure could impact the proposed mixed use districts within the Kettleman City Community Plan. In addition, medium- and low-density residential development that could occur along State Route 198, Grangeville Boulevard, Houston Avenue, and other arterials could be exposed to noise exceeding the normally acceptable range, depending upon distance from the roadway.

Table 4.10-5. Traffic Noise Levels and Distances to 70, 65, & 60 dB L_{dn} Contours Future (2035) Conditions

Roadway Name	Segment Location	Distance to L_{dn} Contours (feet)		
		70 dB	65 dB	60 dB
Interstate 5	Kern Co. Line – Utica Avenue	383	826	1779
Interstate 5	Utica Avenue – State Route 41	402	865	1864
Interstate 5	State Route 41 – Fresno Co. Line	379	815	1757
State Route 33	Kern Co. Line – State Route 41	29	63	136
State Route 33	State Route 41 – 7th Avenue	49	106	228
State Route 33	7th Avenue – State Route 269	48	103	221
State Route 33	State Route 269 – Fresno Co. Line	33	71	154
State Route 41	Kern Co. Line – State Route 33	75	162	349
State Route 41	State Route 33 – Interstate 5	60	130	281
State Route 41	Interstate 5 – Bernard Drive	85	184	395
State Route 41	Bernard Drive – Quail Avenue	82	178	383
State Route 41	Quail Avenue – Nevada Avenue	72	155	334
State Route 41	Nevada Avenue – Jackson Avenue	83	179	385
State Route 41	Jackson Avenue – State Route 198	109	234	504
State Route 41	State Route 198 – Bush Street	176	380	818
State Route 41	Bush Street – Houston Avenue	137	294	634
State Route 41	Houston Avenue – Hanford –Armona Road	137	294	634
State Route 41	Hanford-Armona Road – Grangeville Boulevard	157	338	727
State Route 41	Grangeville Boulevard – Fresno Co. Line	129	277	597
State Route 43	Tulare Co. Line – Railroad Drive	80	173	372
State Route 43	State Route 137 – Corcoran Bypass	101	218	470
State Route 43	Corcoran Bypass – Kansas Avenue	102	219	471
State Route 43	Kansas Avenue – Houston Avenue	77	166	357
State Route 43	Houston Avenue – State Route 198	98	210	453
State Route 43	State Route 198 – Lacey Boulevard	91	195	420
State Route 43	Lacey Boulevard – Grangeville Boulevard	89	191	412
State Route 43	Grangeville Boulevard – 10th Avenue	80	171	369
State Route 43	10th Avenue - Excelsior Avenue	102	220	474
State Route 43	Excelsior Avenue – Fresno Co. Line	108	233	502
State Route 137	State Route 43 – Tulare Co. Line	41	89	191
State Route 198	Fresno Co. Line – LNAS	67	145	312
State Route 198	LNAS – Avenal Cutoff Road	129	279	600
State Route 198	Avenal Cutoff Road – State Route 41	151	325	701
State Route 198	State Route 41 – 18th Avenue	180	388	837
State Route 198	18th Avenue – Houston Avenue	182	393	846
State Route 198	Houston Avenue – 14th Avenue	201	432	931
State Route 198	14th Avenue – Hanford-Armona Road	201	434	935
State Route 198	Hanford-Armona Road – 12th Avenue	186	401	865
State Route 198	12th Avenue – 11th Avenue	194	418	901
State Route 198	11th Avenue – 10th Avenue	167	360	775
State Route 198	10th Avenue – State Route 43	150	323	696
State Route 198	State Route 43 – 6th Avenue	162	348	750
State Route 198	6th Avenue – Tulare Co. Line	158	340	733
State Route 269	State Route 33 – Hydril Road	67	144	311

Table 4.10-5. Traffic Noise Levels and Distances to 70, 65, & 60 dB L_{dn} Contours Future (2035) Conditions

Roadway Name	Segment Location	Distance to L_{dn} Contours (feet)		
		70 dB	65 dB	60 dB
State Route 269	Hydril Road – Interstate 5	82	176	380
Avenal Cutoff	State Route 269 – Nevada Avenue	60	129	278
Avenal Cutoff	Nevada Avenue – State Route 198	59	128	275
Excelsior Avenue	22nd Avenue – State Route 41	18	38	82
Excelsior Avenue	State Route 41 – 19th Avenue	26	55	118
Excelsior Avenue	19th Avenue – 14th Avenue	30	64	138
Excelsior Avenue	14th Avenue – 12 ¾ Avenue	35	75	162
Excelsior Avenue	12 ¾ Avenue – 12th Avenue	38	82	177
Excelsior Avenue	12th Avenue – State Route 43	47	101	217
Excelsior Avenue	State Route 43 – 6th Avenue	22	48	103
Flint Avenue	6th Avenue – State Route 43	16	34	72
Flint Avenue	State Route 43 – 11th Avenue	41	88	189
Flint Avenue	11th Avenue – State Route 41	34	72	156
Fremont Avenue	State Route 41 – 22nd Avenue	23	50	108
Grangeville Boulevard	Grangeville Bypass – 22nd Avenue	64	139	299
Grangeville Boulevard	22nd Avenue – State Route 41	54	116	250
Grangeville Boulevard	State Route 41 – 18th Avenue	47	101	217
Grangeville Boulevard	18th Avenue – 12th Avenue	44	94	203
Grangeville Boulevard	Hanford City Limits – 6th Avenue	69	148	318
Grangeville Boulevard	6th Avenue – Tulare Co. Line	51	109	235
Grangeville Bypass	Grangeville Boulevard – Fresno Co. Line	40	86	185
Houston Avenue	17th Avenue – 14th Avenue	58	124	268
Houston Avenue	14th Avenue – 12th Avenue	36	77	166
Houston Avenue	12th Avenue – 10th Avenue	41	89	192
Houston Avenue	10th Avenue – State Route 43	33	71	153
Houston Avenue	State Route 43 – 2nd Avenue	39	85	183
Jackson Avenue	State Route 198 – 18th Avenue	54	115	249
Jackson Avenue	18th Avenue – State Route 43	36	77	166
Kansas Avenue	State Route 41 – 18th Avenue	20	42	91
Kansas Avenue	18th Avenue – 15th Avenue	35	75	161
Kansas Avenue	15th Avenue – 10 ½ Avenue	46	98	211
Kansas Avenue	10 ½ Avenue – State Route 43	39	84	180
Kansas Avenue	State Route 43 – Tulare Co. Line	27	59	126
Lacey Boulevard	13th Avenue – 18th Avenue	60	129	278
Lacey Boulevard	18th Avenue – State Route 41	26	57	123
Laurel Avenue	18th Avenue – State Route 41	17	38	81
Laurel Avenue	State Route 41 – Avenal Cutoff	13	27	58
Nevada Avenue	Fresno Co. Line – Avenal Cutoff	27	58	124
Nevada Avenue	Avenal Cutoff – State Route 41	11	24	52
Nevada Avenue	22nd Avenue – Tulare Co. Line	12	26	56
Pueblo Avenue	19th Avenue – 10th Avenue	8	17	36
Utica Avenue	25th Avenue – 14th Avenue	20	44	95
Utica Avenue	14th Avenue – 12th Avenue	19	40	86
Utica Avenue	12th Avenue – 6th Avenue	23	49	105
Whitley Avenue	6 ½ Avenue – 10th Avenue	17	37	79
6th Avenue	Utica Avenue – Kern Co. Line	24	52	112
6th Avenue	Plymouth Avenue – Utica Avenue	19	41	88
6th Avenue	Houston Avenue – State Route 198	10	20	44
6th Avenue	State Route 198 – Fargo Avenue	12	26	56
6th Avenue	Fargo Avenue – Tulare Co. Line	4	9	19
10th Avenue	Kansas Avenue – Idaho Avenue	13	29	62
10th Avenue	Idaho Avenue – Houston Avenue	18	39	85

Table 4.10-5. Traffic Noise Levels and Distances to 70, 65, & 60 dB L_{dn} Contours Future (2035) Conditions

Roadway Name	Segment Location	Distance to L_{dn} Contours (feet)		
		70 dB	65 dB	60 dB
10th Avenue	Utica Avenue – Nevada Avenue	25	53	115
10th Avenue	Nevada Avenue – Niles	29	63	136
12th Avenue	Grangeville Boulevard – Fargo Avenue	67	144	310
12th Avenue	Fargo Avenue – Excelsior Avenue	33	71	152
12th ¾ Avenue	Excelsior Avenue – Fresno Co. Line	31	66	143
14th Avenue	Excelsior Avenue – Flint Avenue	13	28	61
14th Avenue	Flint Avenue – Grangeville Boulevard	21	44	96
14th Avenue	Grangeville Boulevard – Houston Avenue	23	50	107
14th Avenue	Houston Avenue – Kansas Avenue	18	38	82
18th Avenue	Flint Avenue – Grangeville Boulevard	16	35	75
18th Avenue	Grangeville Boulevard – Lacey Boulevard	24	51	109
18th Avenue	State Route 198 – Jackson Avenue	60	130	280
18th Avenue	Jackson Avenue – Laurel Avenue	18	39	84
22nd Avenue	Grangeville Boulevard – Excelsior Avenue	13	27	59

Source: FHWA Highway Traffic Noise Prediction Model (FHWA-RD-77-108) with inputs from the project traffic consultant, Caltrans, and Bollard Acoustical Consultants, Inc.

New residences could also be exposed to noise generated by commercial, industrial, and agricultural activity that exceeds the normally acceptable range. In particular, mixed-use development that could be facilitated within the community plan areas could be exposed to noise from commercial activity, including noise associated with deliveries, loading dock operations, mechanical equipment, and parking lot activities.

General Plan Policies which Reduce Impacts. The draft 2035 General Plan includes a number of policies that aim to reduce noise impacts, including:

N Policy A1.1.1 *Appropriate noise mitigation measures shall be included in a proposed project design when the proposed new use(s) will be affected by traffic or railroad noise sources and exceed the County's "Noise Standards for New Uses Affected by Transportation Noise Sources" (Table N-7). Mitigation measures shall reduce projected noise levels to a state of compliance with this standard.*

N Policy B1.1.1 *Appropriate noise mitigation measures shall be included in a proposed project design when the proposed new use(s) will be affected by or include non-transportation noise sources and exceed the County's "Non-Transportation Noise Standards" (Table N-8). Mitigation measures shall reduce projected noise levels to a state of compliance with this standard within sensitive areas. These standards are applied at the sensitive areas of the receiving use.*

N Policy B1.1.2 *Hail cannons are considered significant noise sources in the County and any use of hail cannons shall obtain approval from the Kings County Agriculture Commissioner prior to use and/or construction of the device.*

N Policy C1.1.1 *All noise analyses prepared to determine compliance with the noise level standards contained within this Noise Element shall be prepared in accordance with the County's "Requirements for Acoustical Analyses Prepared in Kings County" (Table N-9).*

N Policy C1.1.2 *Where noise mitigation measures are required to satisfy the noise level standards of this Noise Element, emphasis shall be placed on the use of setbacks and site design, prior to consideration of the use of noise barriers.*

N Policy C1.2.1 *The County shall have the flexibility to consider the application of 5 dB less restrictive exterior noise standards than those prescribed in Tables N-7 and N-8 in cases where it is impractical or infeasible to reduce exterior noise levels within infill projects to a state of compliance with the Table N-7 or N-8 standards. In such cases, the rationale for such consideration shall be clearly presented and disclosure statements and noise easements should be included as conditions of project approval.*

Table 4.10-6. Requirements for Acoustical Analyses Prepared in Kings County

An acoustical analysis prepared pursuant to the Noise Element shall:
A. Be the responsibility of the applicant. B. Be prepared by qualified persons experienced in the fields of environmental noise assessment and architectural acoustics. C. Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions. D. Estimate projected future (20 year) noise levels in terms of the Standards of Tables N-7 and N-8, and compare those levels to the adopted policies of the Noise Element. E. Recommend appropriate mitigation to achieve compliance with the adopted policies and standards of the Noise Element. F. Estimate interior and exterior noise exposure after the prescribed mitigation measures have been implemented.

Implementation of these policies would ensure that projects proposed in noise environments that potentially exceed acceptable standards would be evaluated and that appropriate sound attenuation techniques would be implemented on a case-by-case basis. Depending on what is proposed and the location and source of noise, sound attenuation techniques may include site design to shield noise-sensitive uses from noise, special building standards to reduce interior noise, or the use of barriers to reduce exterior noise.

Mitigation Measures. The draft Noise Element goals and policies address the prevention and reduction of unwanted noise. Mitigation beyond the draft General Plan policies is not needed.

Significance After Mitigation. Impacts relating to the placement of new uses in noise environments exceeding the normally acceptable range would be less than significant without mitigation.

Impact N-2 **Development facilitated by the 2035 General Plan would increase traffic and associated noise levels along area highways and roadways in Kings County, thereby exposing existing land uses to increased noise. With maximum development facilitated by the General Plan, 57 county roadways could experience noise level increases that exceed thresholds. However, implementation of draft General Plan policies would reduce impacts to a Class III, *less than significant*, level.**

Development facilitated by the 2035 General Plan and regional traffic growth would increase noise along area roadways over the life of the General Plan. Table 4.10-7 compares calculated noise levels along major roadways in the County under existing conditions to those that could occur with traffic levels associated with buildout facilitated by the General Plan. In order to provide a point of comparison for existing and future noise conditions, noise levels were calculated at a distance of 100 feet from the roadway centerline. Noise farther away would be lower than shown in the table.

As Table 4.10-7 indicates, traffic associated with buildout under the 2035 General Plan would increase noise along most of the studied roadways. Among the 110 roadways examined, two exhibited projected decreases and six exhibited no increase or decrease. Of the remaining 102 roadways, 23 exhibited a projected increase of one dB, 25 exhibited a projected increase of two dB, 15 exhibited a projected increase of three dB, 16 exhibited a projected increase of 4 dB, 12 exhibited a projected increase of 5 dB, and nine exhibited a projected increase greater than 5 dB. According to the noise envelopes depicted in the draft 2035 General Plan Noise Element, noise levels along the edges of many county roadways currently exceed the normally acceptable range for certain uses. Of the 110 roadway segments examined, 57 are projected to experience a noise level increase that exceeds the FICON thresholds described under "Methodology and Significance Thresholds" and depicted in Table 4.10-2. The impact at these locations would be potentially significant. The projected increases assume maximum development under the 2035 General Plan.

General Plan Policies which Reduce Impacts. The 2035 General Plan includes the following policies, the implementation of which would reduce potential impacts related to future traffic noise. In addition to Noise Policies A1.1.1, C1.1.1, and C1.1.2 discussed under Impact N-1, the General Plan includes the following policies:

N Policy B1.2.1 *A noise analysis shall be prepared in accordance with the County's "Requirements for Acoustical Analyses Prepared in Kings County" (Table N-9) for capacity enhancing roadways or rail projects, or the construction of new roadways or railways. If the proposed project will result in a significant noise level increase as defined below, or the project would cause noise levels to exceed the County's noise standards (Table N-7), noise mitigation measures should be considered to reduce traffic and/or rail noise levels to a level consistent with those standards. A significant increase is defined as follows:*

Pre-Project Noise Environment (Ldn)	*Significant Increase*
Less than 60 dB	*5+ dB*
60 - 65 dB	*3+ dB*
Greater than 65 dB	*1.5+ dB*

This policy requires only that noise mitigation measures be considered in cases where the significance thresholds described above would be exceeded. However, there are various factors which may affect the feasibility or reasonableness of the mitigation which should be considered during the project environmental review process, including the following:

A. The severity of the impact.
B. The cost and effectiveness of the mitigation.
C. The number of properties which would benefit from the mitigation.
D. Aesthetic, safety and engineering considerations.

N Policy B1.2.2 *If noise-reducing pavement is to be utilized in conjunction with a roadway improvement project, the acoustical benefits of such pavement shall be included in the noise analysis prepared for the project.*

Implementation of the above policies would ensure that noise impacts are considered as individual development projects and transportation improvements incorporate appropriate noise attenuation techniques. As necessary, the County may consider a range of traffic noise attenuation techniques, potentially including the use of sound reducing paving materials (such as rubberized asphalt) and, in certain instances, the use of sound barriers. In addition, as noted in numerous Circulation Element policies, the County will continue to emphasize vehicle trip reduction techniques to address traffic issues, with the added benefit that the use of such techniques would also reduce vehicular noise. With implementation of draft General Plan policies, increases in roadway noise would be reduced to a less than significant level.

Table 4.10-7. Comparison of Calculated Existing and Future Noise Levels along Major Roadways

Roadway Segment	Limits	Existing		Buildout		Noise Level Increase (dB)
		ADT	L_{dn} @ 100 Feet	ADT	L_{dn} @ 100 Feet	
Interstate 5	Kern Co. Line – Utica Avenue	31,500	77	49,420	79	**2**
Interstate 5	Utica Avenue – State Route 41	32,500	77	52,990	79	**2**
Interstate 5	State Route 41 – Fresno Co. Line	34,500	77	48,490	79	**2**
State Route 33	Kern Co. Line – State Route 41	2,500	60	4,130	62	2
State Route 33	State Route 41 – 7th Avenue	2,400	60	9,000	65	**5**
State Route 41	Kern Co. Line – State Route 33	7,500	66	11,550	68	**2**
State Route 41	State Route 33 – Interstate 5	6,700	66	8,340	67	1
State Route 41	Interstate 5 – Bernard Drive	9,500	67	13,940	69	**2**
State Route 41	Bernard Drive – Quail Avenue	7,100	66	13,260	69	**3**
State Route 41	Quail Avenue – Nevada Avenue	8,300	67	10,840	68	1
State Route 41	Nevada Avenue – Jackson Avenue	8,500	67	13,370	69	**2**
State Route 41	Jackson Avenue – State Route 198	9,700	68	19,340	71	**3**

Table 4.10-7. Comparison of Calculated Existing and Future Noise Levels along Major Roadways

Roadway Segment	Limits	Existing		Buildout		Noise Level Increase (dB)
		ADT	L_{dn} @ 100 Feet	ADT	L_{dn} @ 100 Feet	
State Route 41	State Route 198 – Bush Street	14,200	69	43,840	74	**5**
State Route 41	Bush Street – Houston Avenue	18,000	70	29,910	72	**2**
State Route 41	Houston Avenue – Hanford – Armona Road	18,000	70	29,910	72	**2**
State Route 41	Hanford-Armona Road – Grangeville Boulevard	20,000	71	31,390	73	**2**
State Route 41	Grangeville Boulevard – Fresno Co. Line	18,000	71	23,330	72	1
State Route 43	Tulare Co. Line – Railroad Drive	4,700	67	6,860	69	**2**
State Route 43	State Route 137 – Corcoran Bypass	3,500	66	9,730	70	**4**
State Route 43	Corcoran Bypass – Kansas Avenue	6,300	65	18,190	70	**5**
State Route 43	Kansas Avenue – Houston Avenue	5,800	65	12,950	68	**3**
State Route 43	Houston Avenue – State Route 198	8,700	68	13,070	70	**2**
State Route 43	State Route 198 – Lacey Boulevard	11,300	68	14,230	69	1
State Route 43	Lacey Boulevard – Grangeville Boulevard	10,300	68	13,840	69	1
State Route 43	Grangeville Boulevard – 10th Avenue	9,800	68	11,720	69	1
State Route 43	10th Avenue - Excelsior Avenue	10,300	68	17,040	70	**2**
State Route 43	Excelsior Avenue – Fresno Co. Line	10,800	68	18,590	71	**3**
State Route 137	State Route 43 – Tulare Co. Line	2,550	61	5,390	64	3
State Route 198	Fresno Co. Line – LNAS	7,700	66	11,940	67	1
State Route 198	LNAS – Avenal Cutoff Road	14,700	68	31,890	72	**4**
State Route 198	Avenal Cutoff Road – State Route 41	18,500	69	43,990	73	**4**
State Route 198	State Route 41 – 18th Avenue	20,900	70	54,820	74	**4**
State Route 198	18th Avenue – Houston Avenue	21,800	70	58,280	74	**4**
State Route 198	Houston Avenue – 14th Avenue	29,000	71	67,350	75	**4**
State Route 198	14th Avenue – Hanford-Armona Road	32,000	71	67,710	75	**4**
State Route 198	Hanford-Armona Road – 12th Avenue	28,500	71	60,250	74	**3**
State Route 198	12th Avenue – 11th Avenue	20,700	70	59,780	74	**4**
State Route 198	11th Avenue – 10th Avenue	19,500	70	39,650	73	**3**
State Route 198	10th Avenue – State Route 43	19,800	70	33,040	73	**3**
State Route 198	State Route 43 – 6th Avenue	18,900	70	35,110	73	**3**
State Route 198	6th Avenue – Tulare Co. Line	19,800	71	33,910	73	**2**
State Route 269	State Route 33 – Hydril Road	5,000	64	11,380	67	**3**
State Route 269	Hydril Road – Interstate 5	3,100	62	15,330	69	**7**
Avenal Cutoff	State Route 269 – Nevada Avenue	3,000	61	10,770	67	**6**
Avenal Cutoff	Nevada Avenue – State Route 198	5,150	63	10,610	67	**4**
Excelsior Avenue	22nd Avenue – State Route 41	1,520	58	1,720	59	1
Excelsior Avenue	State Route 41 – 19th Avenue	2,190	60	2,990	61	1
Excelsior Avenue	19th Avenue – 14th Avenue	3,300	62	3,770	62	0
Excelsior Avenue	14th Avenue – 12 ¾ Avenue	3,490	62	4,780	63	1

Table 4.10-7. Comparison of Calculated Existing and Future Noise Levels along Major Roadways

Roadway Segment	Limits	Existing		Buildout		Noise Level Increase (dB)
		ADT	L_{dn} @ 100 Feet	ADT	L_{dn} @ 100 Feet	
Excelsior Avenue	12 ¾ Avenue – 12th Avenue	4,550	63	5,470	64	1
Excelsior Avenue	12th Avenue – State Route 43	3,140	61	7,410	65	**4**
Excelsior Avenue	State Route 43 – 6th Avenue	790	55	2,410	60	**5**
Flint Avenue	6th Avenue – State Route 43	1,380	58	1,430	58	0
Flint Avenue	State Route 43 – 11th Avenue	2,490	60	6,020	64	**4**
Flint Avenue	11th Avenue – State Route 41	2,290	60	4,510	63	3
Fremont Avenue	State Route 41 – 22nd Avenue	800	55	2,590	60	**5**
Grangeville Boulevard	Grangeville Bypass – 22nd Avenue	3,120	61	12,010	67	**6**
Grangeville Boulevard	22nd Avenue – State Route 41	4,560	63	9,170	66	**3**
Grangeville Boulevard	State Route 41 – 18th Avenue	4,940	63	7,440	65	2
Grangeville Boulevard	18th Avenue – 12th Avenue	5,290	64	6,700	65	1
Grangeville Boulevard	Hanford City Limits – 6th Avenue	3,080	61	13,180	68	**7**
Grangeville Boulevard	6th Avenue – Tulare Co. Line	3,120	61	8,370	66	**5**
Grangeville Bypass	Grangeville Boulevard – Fresno Co. Line	3,090	61	5,860	64	3
Houston Avenue	17th Avenue – 14th Avenue	9,340	66	10,170	66	0
Houston Avenue	14th Avenue – 12th Avenue	2,090	60	4,980	63	3
Houston Avenue	12th Avenue – 10th Avenue	3,820	62	6,160	64	2
Houston Avenue	10th Avenue – State Route 43	3,520	62	4,400	63	1
Houston Avenue	State Route 43 – 2nd Avenue	4,350	63	5,730	64	1
Jackson Avenue	State Route 198 – 18th Avenue	1,380	58	9,110	66	**8**
Jackson Avenue	18th Avenue – State Route 43	680	55	4,980	63	**8**
Kansas Avenue	State Route 41 – 18th Avenue	1,400	58	2,030	59	1
Kansas Avenue	18th Avenue – 15th Avenue	3,670	62	4,740	63	1
Kansas Avenue	15th Avenue – 10 ½ Avenue	2,170	60	7,130	65	**5**
Kansas Avenue	10 ½ Avenue – State Route 43	5,010	63	5,610	64	1
Kansas Avenue	State Route 43 – Tulare Co. Line	3,270	61	3,290	62	1
Lacey Boulevard	13th Avenue – 18th Avenue	8,110	65	10,750	67	**2**
Lacey Boulevard	18th Avenue – State Route 41	1,630	58	3,150	61	3
Laurel Avenue	18th Avenue – State Route 41	740	55	1,690	59	4
Laurel Avenue	State Route 41 – Avenal Cutoff	910	56	1,030	56	0
Nevada Avenue	Fresno Co. Line – Avenal Cutoff	2,520	60	3,220	61	1
Nevada Avenue	Avenal Cutoff – State Route 41	390	52	880	56	4
Nevada Avenue	22nd Avenue – Tulare Co. Line	600	54	970	56	2
Pueblo Avenue	19th Avenue – 10th Avenue	380	50	730	53	3
Utica Avenue	25th Avenue – 14th Avenue	690	55	2,150	60	**5**
Utica Avenue	14th Avenue – 10th Avenue	550	54	1,860	59	5
Utica Avenue	10th Avenue – 6th Avenue	540	54	2,490	60	**6**
Whitley Avenue	6 ½ Avenue – 10th Avenue	2,440	57	3,740	58	1
6th Avenue	Utica Avenue – Kern Co. Line	760	52	6,320	61	**9**
6th Avenue	Plymouth Avenue – Utica Avenue	2,020	56	4,410	59	3
6th Avenue	Houston Avenue – State Route 198	380	49	1,570	55	**6**
6th Avenue	State Route 198 – Fargo Avenue	2,290	56	2,230	56	0
6th Avenue	Fargo Avenue – Tulare Co. Line	1,920	56	440	49	-7
10th Avenue	Kansas Avenue – Idaho Avenue	1,200	55	1,700	57	2
10th Avenue	Idaho Avenue – Houston Avenue	2,024	58	2,690	59	1

Table 4.10-7. Comparison of Calculated Existing and Future Noise Levels along Major Roadways

Roadway Segment	Limits	Existing		Buildout		Noise Level Increase (dB)
		ADT	L_{dn} @ 100 Feet	ADT	L_{dn} @ 100 Feet	
10th ½ Avenue	Utica Avenue – Nevada Avenue	2,900	59	4,250	61	2
10th ½ Avenue	Nevada Avenue – Niles	2,000	58	5,470	62	**4**
12th Avenue	Grangeville Boulevard – Fargo Avenue	5,170	62	18,740	67	**5**
12th Avenue	Fargo Avenue – Excelsior Avenue	3,960	61	6,470	63	2
12th ¾ Avenue	Excelsior Avenue – Fresno Co. Line	3,100	60	5,860	62	2
14th Avenue	Excelsior Avenue – Flint Avenue	1,190	55	1,620	57	2
14th Avenue	Flint Avenue – Grangeville Boulevard	3,120	60	3,220	60	0
14th Avenue	Grangeville Boulevard – Houston Avenue	5,880	62	3,790	60	-2
14th Avenue	Houston Avenue – Kansas Avenue	2,430	58	2,540	59	1
18th Avenue	Flint Avenue – Grangeville Boulevard	760	53	2,250	58	5
18th Avenue	Grangeville Boulevard – Lacey Boulevard	2,930	59	3,940	61	2
18th Avenue	State Route 198 – Jackson Avenue	6,190	63	16,160	67	**4**
18th Avenue	Jackson Avenue – Laurel Avenue	1,690	57	2,650	59	2
22nd Avenue	Grangeville Boulevard – Excelsior Avenue	1,280	56	1,560	57	1

*A **bolded** Noise Level Increase signifies a "substantial" increase in traffic noise as defined by the Federal Interagency Committee on Noise (FICON) recommendations.*
Source: FHWA Traffic Noise Prediction Model (FHWA-RD-77-108) with inputs from the project traffic consultant, Caltrans, and Bollard Acoustical Consultants, Inc.

Mitigation Measures. The draft Noise Element goals and policies address the prevention and reduction of unwanted noise. Mitigation beyond the draft General Plan policies is not needed.

Significance After Mitigation. Impacts relating to the placement of new uses in noise environments exceeding the normally acceptable range would be less than significant without mitigation.

Impact N-3 Construction of individual projects facilitated by the 2035 General Plan could produce noise levels ranging from 75 to 95 dBA at 50 feet from the source potentially affecting adjacent land uses. Such noise could cause temporary disturbance to nearby receptors, but draft 2035 General Plan policies would address potential impacts relating to construction. Therefore, this would be a Class III, *less than significant,* impact.

Noise from individual construction projects that could be facilitated under the 2035 General Plan would create temporary noise level increases on and adjacent to individual construction sites. Since there are no specific plans or time scales for individual development projects, it is not possible to determine exact noise levels, locations, or time period for construction.

However, construction noise would be highest and of the longest duration adjacent to sites where more future development/redevelopment is anticipated to occur. For example, mixed-use areas, as well as other areas where land-use designations have changed, may undergo considerable demolition and construction activity over the life of the General Plan.

Table 4.10-8 illustrates the general noise levels associated with construction activity. At a distance of 50 feet from the construction site, noise levels similar to those shown in Table 4.10-8 would be expected to occur with individual development projects. Noise would typically drop off at a rate of about 6 dB per doubling of distance; therefore, noise levels would be about 6 dB lower than shown in the table at 100 feet from the noise source and 12 dB lower at a distance of 200 feet from the noise source.

Table 4.10-8. Typical Noise Levels at Construction Sites

Construction Phase	Average Noise Level at 50 Feet	
	Minimum Required Equipment On-Site	All Pertinent Equipment On-Site
Clearing	84 dBA	84 dBA
Excavation	78 dBA	88 dBA
Foundation/Conditioning	88 dBA	88 dBA
Laying Subbase, Paving	78 dBA	79 dBA
Finishing and Cleanup	84 dBA	84 dBA

Source: Bolt, Beranek, and Newman, "Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances," prepared for the U.S. Environmental Protection Agency, 1971.

To date, the County has not adopted any specific standards relating to construction noise.

General Plan Policies which Reduce Impacts. The 2035 General Plan includes the following policies, the implementation of which would reduce potential impacts related to construction noise issues:

N Policy B1.1.3 *Noise associated with construction activities shall be considered temporary, but will still be required to adhere to applicable County Noise Element standards.*

Per the above policy, noise from construction would be required to adhere to the noise standards for other non-transportation sources (Table 4.10-4). As part of the implementation program that will follow the General Plan update, the county will apply the noise standards contained in the 2035 General Plan, thereby regulating allowable noise associated with construction activity. Therefore, although construction activity would continue to create temporary noise impacts throughout the community, adoption and implementation of these new standards would improve protection from construction noise and reduce temporary construction impacts to a less than significant level.

Mitigation Measures. The proposed General Plan policies would address potentially-significant noise activity associated with development under the General Plan. No mitigation

measures beyond implementation of the policies included in the draft General Plan Noise Element would be required.

Significance After Mitigation. Impacts relating to temporary construction activity would be less than significant without mitigation.

Impact N-4 **Development facilitated by the 2035 General Plan could result in exposure of existing and future residences and other noise-sensitive land uses to airstrip- and other air-traffic-related noise levels exceeding the "acceptable" range. However, implementation of siting requirements, noise attenuation features on new development, and other policies in the draft General Plan would reduce impacts to a Class III, *less than significant*, level.**

Aircraft operations associated with the county airports, and NAS Lemoore, can generate noise levels greater than 60 dBA, and new development would be potentially subjected to airport-related noise exceeding acceptable levels, depending on its proximity to the airport. Noise contours for military activities originating from NAS Lemoore have been updated to reflect current F/A-18 Super Hornet Strike Fighter aircraft operations. The newly updated noise contours represent the most significant noise change since the previous general plan update adoption in 1993. Refer to Figure 2-5 in Section 2.0, *Project Description*, for the newly established noise contours.

General Plan Policies which Reduce Impacts. The 2035 General Plan includes the following policies within the Noise Element, which are intended to mitigate airport noise impacts:

N Policy A1.2.1 *New development proposals that may be affected by aircraft noise shall be evaluated relative to the noise level standards contained in the County's "Noise Standards for New Uses Affected by Transportation Noise Sources" (Table N-7).*

N Policy A1.2.2 *New residential development shall be prohibited when proposed within the 70 CNEL or greater noise contours for any military airfield, airport, or helipad within Kings County. Latest available airport noise contours shall be used in determining the extent of airport noise contours. This policy does not pertain to existing residential remodels, expansions or additions, and does not apply to reconstruction of previously existing residences. Noise generated from private airstrips is not applicable to this policy.*

N Policy A1.2.3 *New residential development proposed in airport noise environments within the 60 dB CNEL contours or greater shall be subject to the following conditions:*

A. Provide minimum noise insulation to 45 dB CNEL within new residential dwellings, including detached single family dwellings, with windows closed in any habitable room.

B. Provide disclosure statements to prospective buyers that the parcel is located in an area which may be exposed to frequent aircraft noise events (arrivals, departures, overflights, engine run-ups, etc.).

C. An Avigation Easement, on forms provided by the County, shall be recorded with the Kings County Recorder, for each newly created residential parcel or agricultural parcel less than 10 acres in size, or when a building permit is issued on an existing parcel or lot, within any area, or the 60 dB CNEL contour of the Naval Air Station, Lemoore flight patterns as shown on Figure N-8. Copies shall be filed with the County's Community Development Agency. The Avigation Easement shall be granted to the County of Kings and acknowledge the property is located near a source of aircraft noise and grants the right of flight and unobstructed passage of all aircraft, civilian and military, into and out of the subject public use airport, emergency services heliport, or military airfield.

Exceptions: New accessory residential dwellings on parcels zoned Agricultural and within the 60 dB CNEL contours or greater, shall be permitted but would be subject to the conditions listed above.

The 2035 Stratford Community Plan includes the following goals, objectives, and policies that are intended to mitigate airport noise impacts:

SCP GOAL 7C *Protect the residents of Stratford from the harmful and annoying effects of excessive noise exposure.*

SCP OBJECTIVE 7C.1 *Prevent excessive noise within the community by coordinating land use policies with known and identifiable noise sources, and integrating practices and technologies that reduce noise.*

SCP Policy 7C.1.1 *Residential designated land located within military aircraft noise contours of 60 CNEL or greater shall be subject to Noise Element policies for aircraft noise, which may restrict new development or require implementation of mitigation measures to reduce the exposure of residents to excessive noise.*

SCP Policy 7C.1.2 *Review discretionary industrial, commercial, or other noise-generating land use projects for compatibility with nearby noise-sensitive land uses.*

SCP Policy 7C.1.3 *Direct new residential development away from State Route 41 or establish sufficient sound buffers to reduce noise levels to acceptable levels.*

Implementation of these policies would ensure that projects proposed within the noise environment of local airstrips would be evaluated and that appropriate sound attenuation techniques would be implemented on a case-by-case, project-level basis. Implementation of the above 2035 General Plan policies would ensure that impacts related to airport generated noise exceeding County standards would be less than significant without mitigation.

Mitigation Measures. The proposed General Plan policies would address potentially-significant noise activity associated with airstrips under the 2035 General Plan. No mitigation measures beyond implementation of the policies included in the draft General Plan Noise Element would be required.

Significance After Mitigation. Impacts would be less than significant without mitigation.

4.11 POPULATION and HOUSING

This section analyzes the draft 2035 General Plan's potential environmental impacts related to population and housing.

4.11.1 Setting

a. Population, Housing, and Employment. Kings County ranks as the seventh fastest-growing county in population in California. Since 1980, Kings County's population has increased at an annual average growth rate of 3.8 percent. However, much of the increase is inflated due to the opening of Avenal State Prison (1987), Corcoran State Prison I and II (1988), the California Substance Abuse Treatment Facility (1997), and expansion of Naval Air Station Lemoore (NAS Lemoore). Discounting military and correctional institutions, Countywide population still increased at a rate of approximately two percent annually since 1980 (2003-2008 Housing Element, 2004)

The January 1, 2008 population of Kings County is estimated by the California Department of Finance to be 154,434. This represents about a 19.2 percent increase over the year 2000, when the population was 129,461 (Department of Finance, 2008). Unincorporated Kings County total population has an estimated population of 35,311. Unincorporated Kings County, less the Santa Rosa Rancheria and NAS Lemoore residents, has an estimated population of 27,406 (Department of Finance, 2008). As of 2008, the County has 42,161dwelling units, including 32,433 single-family dwelling units, 7,476 units within multi-family buildings, and 2,252 mobile homes (Department of Finance, 2008). The average household size is 3.287 persons, while vacancy rate is 5.68 percent (Department of Finance, 2008).

Coupled with housing prices, the homeownership rate is related with the age of homeowners. Homeownership rates tend to increase with the age and income of the homeowner. Home ownership rates by residents countywide in 2000 represented 87 percent of all residents aged 65 and older, 75 percent between the ages of 55 and 64, and 67 percent between the ages of 45-54. In contrast, approximately 55 percent of residents aged 34 to 64 and only 29 percent of residents aged 34 years or younger owned a home (2003-2008 Housing Element, 2004).

Kings County's civilian labor force is approximately 61,200, with an April 2009 unemployment rate of 15.3 (California Employment Development Department, 2009). Historically, agriculture and government have dominated Kings County's economy. Agriculturally-oriented counties tend to have higher unemployment rates and greater seasonal variations in unemployment. In 2007, Kings County ranked 8th in California by value of agriculture production. The primary industries include government, agriculture, manufacturing, and trade, transportation, and utilities. Government is the largest industry in the County, accounting for 33.2 percent of the employment, while agriculture accounts for 20.7 percent. Trade, transportation, and utilities represents 12.2 percent, manufacturing accounts for 9.6 percent, and educational and health services reflects 8.0 percent of all employment (Regional Housing Needs Allocation Plan, 2008).

b. Regulatory Setting. The following section summarizes regulations that pertain to population and housing.

Regional Housing Needs Allocation (RHNA). California's Housing Element law requires that each county and city develop local housing programs to meet their "fair share" of future housing growth needs for all income groups, as determined by the State Department of Housing and Community Development. The regional councils of government, including the Kings County Association of Governments (KCAG), are then tasked with distributing the State-projected housing growth need for their region among their city and county jurisdictions by income category. This fair share allocation is referred to as the RHNA process. The RHNA represents the minimum number of housing units each community is required to plan for through a combination of: 1) zoning "adequate sites" at suitable densities to provide affordability; and 2) housing programs to support production of below-market rate units. Through the years 2001-2007, a total of 5,550 residential building permits were issued in Kings County. Kings County RHNA allocation for unincorporated County areas is shown in Table 4.11-1.

Table 4.11-1. Regional Housing Needs Allocation for Unincorporated Kings County 2008-2014

Income Group	RHNA Allocation (units)	% of Total
Very Low	137	12.52%
Low	193	17.64%
Moderate	316	28.88%
Above Moderate	448	40.95%
Total	**1,094**	**100%**

Source: Kings County Association of Governments: 2008 Kings County Regional Housing Needs Allocation Plan

State Housing Element Statutes. State housing element statutes (Government Code Sections 65580-65589.9) mandate that local governments adequately plan to meet the existing and projected housing needs of all economic segments of the community. The law recognizes that for the private market to adequately address housing needs and demand, local governments must adopt land use plans and regulatory systems that provide opportunities for, and do not unduly constrain, housing development. As a result, State housing policy rests largely upon the effective implementation of local general plans and in particular, housing elements. Additionally, Government Code §65588 dictates that the housing elements must be updated at least once every five years. Kings County is currently in the process of preparing a new Housing Element separate from the 2035 General Plan Update which will be analyzed under a separate environmental document.

4.11.2 Impact Analysis

a. Methodology and Significance Thresholds. Impacts relating to population and housing are considered significant if implementation of the 2035 General Plan would:

- *Induce substantial population growth either directly or indirectly*
- *Create an imbalance of jobs and housing in the County*
- *Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere*

- *Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere*

For purposes of this analysis, "substantial" population growth is defined as a growth rate that exceeds the 2008 published Department of Finance population projections for Kings County. It should be noted that County documents such as the KCAG Regional Transportation Plan uses Department of Finance projections for transportation planning. A "Substantial" displacement may occur if allowed land uses displace more residences than what is accommodated through the General Plan.

b. Project and Cumulative Impacts.

Impact PH-1 Implementation of the 2035 General Plan would not result in the displacement of substantial numbers of people or housing. To the contrary, the 2035 General Plan would facilitate the development of new housing in accordance with state and local housing requirements. Impacts would be Class III, *less than significant*.

An intention of the 2035 General Plan is to focus future development in Kings County in areas that are already developed, which includes the communities of Armona, Home Garden, Kettleman City, and Stratford. General Plan buildout would accommodate up to 4,800 residential units. "Infill" development would occur in the four unincorporated community plan areas as identified on the proposed land use maps for each community plan area. Potential growth areas are depicted on the proposed land use maps shown in Figures 2-8, 2-10, 2-11, and 2-14 in Section 2.0, *Project Description*. As such, impacts would be less than significant.

According to the 2000 Census, the County had 9,557 seniors age 65 years and older. The majority of seniors lived in a home (as opposed to a group quarter), translating into a total of 5,815 households. Numerically, seniors were concentrated in Hanford and the unincorporated areas. However, senior households comprised 20 percent of all households in Corcoran, Lemoore, and unincorporated areas of Kings County. Senior renters, while facing the same income and mobility limitations as homeowners, are more at-risk of displacement. To address their needs, the Housing Authority provides rent subsidy vouchers for very low income seniors. In addition, approximately 11 subsidized low-income projects (five of which are in Hanford) provide affordable living options for seniors.

General Plan Policies which Reduce Impacts**.** The *2003-2008 General Plan Housing Element* includes the following policies, the implementation of which reduce potential impacts to housing and population.

Policy 2.1. *Provide adequate sites for housing through appropriate land use, zoning and development standards to accommodate the regional housing needs goals for 2003-2008.*

Policy 2.3. *Ensure the adequate provision of water, sewer, roads, public facilities, and other infrastructure necessary to serve new housing.*

Policy 2.4. *Support the construction of high quality single- and multi-family housing which is well designed and energy efficient.*

Mitigation Measures. No significant impacts were identified.

Significance after Mitigation. Impacts would be less than significant without mitigation.

Impact PH-2 Implementation of the 2035 General Plan would facilitate new residential and commercial development in unincorporated Kings County, which would accommodate an increase in the population of this area to approximately 52,174. This potential population increase would exceed current growth projections for unincorporated Kings County and may result in inconsistencies with the Regional Transportation Plan. However, the physical impacts of such growth have been analyzed and disclosed within this document. Additionally, any potentially inconsistent regional planning projections would ultimately be updated accordingly to be consistent with the 2035 General Plan. Therefore, impacts would be Class III, *less than significant*.

The California Department of Finance (DOF) projects that the total population of unincorporated Kings County in 2035 will be 41,080, which is approximately 5,769 people beyond the existing population of 35,311 (DOF, 2008). Maximum development facilitated by the 2035 General Plan would add an estimated 16,863 residents (4,800 dwelling units x 3.513 people/dwelling unit) to the existing population of unincorporated Kings County and therefore could result in a total population of approximately 52,174 in the year 2035. This population would be approximately 11,094 persons beyond DOF projections for the year 2035. As such, the 2035 General Plan would be potentially inconsistent with DOF projections, which may also result in possible inconsistencies with various regional planning documents such as the 2007 Regional Transportation Plan, as these plans rely on the population projections of the DOF. It should also be noted that while the General Plan may accommodate growth beyond what is projected by the DOF and in the RTP, the actual amount of development that could would occur would be a function of several factors that are beyond the control of the County, including market conditions. Thus, it is also possible that future development under the General Plan through 2035 may be within DOF projections.

Although the population at buildout of the 2035 General Plan would be inconsistent with DOF population projections for the year 2035, such an inconsistency would not result in physical environmental impacts or exceed any established threshold. Furthermore, the physical environmental impacts that are associated with the growth that could occur under the 2035 General Plan have been analyzed and disclosed in Sections 4.1 through 4.15 of this document. As such, the 2035 General Plan would not induce growth and development beyond that analyzed and disclosed within this document. Should inconsistencies with regional planning documents arise upon adoption of the 2035 General Plan, these regional planning documents

would need to be revised and updated accordingly in the future to accommodate the growth that could occur under the 2035 General Plan. Moreover, it should be noted that while the population of unincorporated Kings County could theoretically increase to 52,174, such growth is highly unlikely to occur by 2035 based on the historical growth trends of the past 18 years, during which the County experience virtually no growth. Therefore, impacts related to population growth would be less than significant.

General Plan Policies which Reduce Impacts. The 2003 General Plan Housing Element includes the following policies, the implementation of which potential impacts to housing and population.

Policy 2.1. *Provide adequate sites for housing through appropriate land use, zoning and development standards to accommodate the regional housing needs goals for 2003-2008.*

Policy 2.3. *Ensure the adequate provision of water, sewer, roads, public facilities, and other infrastructure necessary to serve new housing.*

Policy 2.4. *Support the construction of high quality single- and multi-family housing which is well designed and energy efficient.*

Policy 5.1. *Support enforcement of fair housing laws prohibiting arbitrary discrimination in the development, financing, rental, or sale of housing.*

The *2035 General Plan Land Use Element* includes the following policies, the implementation of which mitigate potential impacts to housing and population.

LU Policy D1.6.2. *Annually review and assess the capacity of existing Community Services District or Public Utilities District services to determine the District's ability to accommodate new urban growth.*

Mitigation Measures. No significant impacts were identified.

Significance after Mitigation. Impacts would be less than significant without mitigation.

Impact PH-3 Development facilitated by the proposed 2035 General Plan would add both jobs and housing, which would affect the jobs/housing balance. Objectives and policies included in the General Plan encourage a mix of commercial and residential uses and districts. Therefore, impacts relating to jobs/housing balance are considered Class III, *less than significant*.

The County currently has 1.3 jobs for every housing unit. Such a ratio generally indicates a balance insofar as it equates to between one and two workers per household. The 2035 General Plan includes a number of objectives and policies specifically intended to continue to allow the County to provide a mix of jobs and housing. As noted in Section 2.0, *Project Description*, the

2035 General Plan includes mixed-use designations that are specifically intended to facilitate the development of a mix of residential and commercial uses in proximity to one another. These mixed use districts would not only provide for a mix of jobs and housing, but would also help the County provide a balance of jobs and housing. Additionally, the 2035 General Plan would allow for up to an additional estimated 1,780,000 square feet of commercial space to be developed. This commercial space would assist in providing additional jobs throughout the County. Therefore, impacts relating to jobs/housing balance are less than significant.

General Plan Policies which Reduce Impacts. The 2003 General Plan Housing Element includes the following policies, the implementation of which address potential impacts to housing and population.

Policy 3.1 *Offer regulatory and/or financial incentives, as available and appropriate, to encourage the construction of quality housing.*

Policy 3.3 *Utilize planned developments and other creative mechanisms to facilitate the construction of more creative, well-designed, housing projects.*

The *2035 General Plan Land Use Element* includes the following policies, the implementation of which mitigate potential impacts to housing and population.

LU Policy D1.2.1 *Integrate Downtown Mixed Use and Mixed Use into centralized community downtowns or community core areas to allow various mixtures of commercial and residential uses, and replace the Central Commercial land use designation.*

The 2035 community plans include the following goals, the implementation of which would reduce potential impacts to housing and population.

ACP GOAL 2B *Armona's commercial areas are enhanced and expanded in an orderly manner to increase the jobs/housing balance and meet the needs of local residents and visitors, while restricting development along the Highway 198 interchange at 13th Avenue which requires substantial redesign.*

HGCP GOAL 2B *Home Garden's commercial corridor has a centralized focal point at the 10th Avenue and Home Avenue intersection, and is enhanced in a manner that increases the jobs/housing balance and meets the needs of local residents and visitors.*

KCCP GOAL 2B *Kettleman City's commercial areas serve the local needs of community residents through a new downtown commercial area, and regional needs of highway travelers at the highway commercial area. New commercial growth provides long term economic vitality for the community, reinvests in and revitalizes the community, and seeks to enhance a job/housing balance for the community.*

SCP GOAL 2B *Stratford's commercial and industrial areas are enhanced and expanded in an efficient manner to increase the jobs/housing balance and meet the needs of local residents and visitors.*

Mitigation Measures. No significant impacts were identified, so no mitigation measures are required.

Significance after Mitigation. Impacts would be less than significant without mitigation.

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4.12 PUBLIC SERVICES

This section assesses potential impacts to public services, including fire and police protection and public schools. Fire hazard related impacts are discussed in Section 4.7 *Hazards and Hazardous Materials*. Impacts to water and wastewater infrastructure and solid waste collection and disposal are discussed in Section 4.15, *Utilities and Service Systems*. Impacts to parks and recreation are discussed in Section 4.13, *Recreation*.

4.12.1 Setting

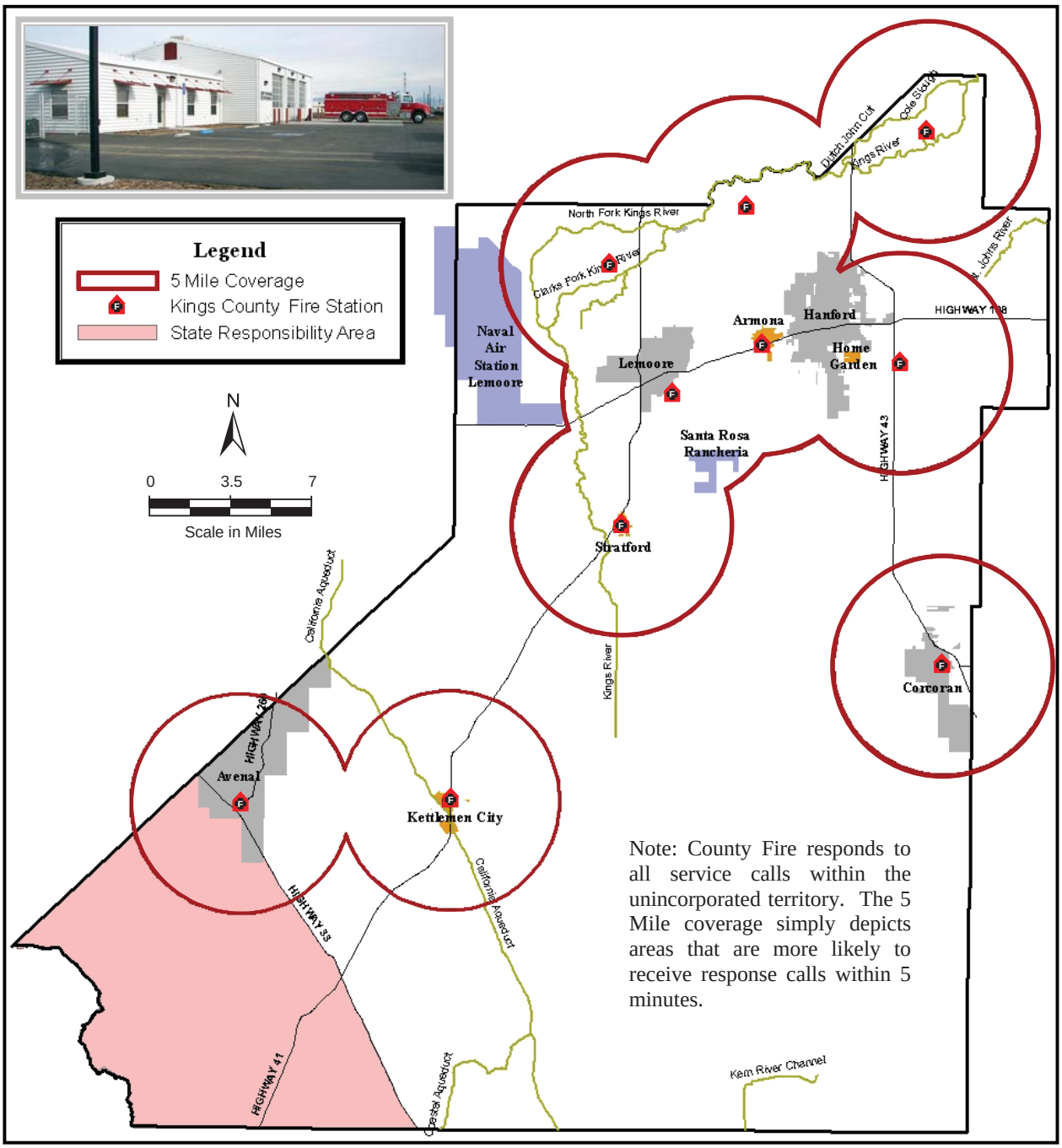
a. Fire Protection Service. The Kings County Fire Department is staffed by 60 professional firefighters, one Fire Equipment Specialist, one Training Chief, two Battalion Chiefs, one Administrative Assistant/Office of Emergency Services (OES) Coordinator, one Administration Chief, one Assistant Chief, one Fire Chief and two office assistants. Assistance is received from ten volunteer companies within the County consisting of nearly 100 active volunteer firefighters. There are ten fire stations throughout the County. All urbanized areas have a station located within five miles, refer to Figure 4.12-1. The location and profile of each station is discussed below.

Headquarters. Kings County Fire Department Headquarters, located at 280 N. Campus Drive, Hanford, California, is the hub for the ten fire stations located throughout the County. Personnel housed at Headquarters include the Fire Chief, one Training Chief, one Support Chief, one Fire Marshal and three administrative assistants. The administrative staff process vital paperwork including, but not limited to, payroll; department purchase orders/claims; hazard abatement postings; and correspondences to stations and/or outside entities. Headquarters also serves the public and answer questions that are received in person or by phone.

Station 1. The Burris Park Fire Station is located at 6575 Clinton Avenue in unincorporated Kings County. Station 1 serves primarily the Northeastern portion of Kings County as well as providing mutual aid assistance with Fresno and Tulare Counties. The station is located at the front entrance to the beautiful Burris Park and is staffed by two paid personnel and seven volunteer firefighters. Personnel include one captain and one engineer, and equipment includes a 1998 3D Freightliner Engine and a 1998 Ford F-450 Squad. There is one firefighter on duty at all times.

Station 2. The Hardwick Fire Station is located at 14680 Excelsior Avenue in Hanford. The Hardwick Station responds primarily to the north end of the County and also provides mutual aid assistance to Fresno County when requested. Personnel include one captain and one engineer, and equipment includes an E-2 1978 GMC General / S-2 and a 1991 Chevy Kodiak. There is one firefighter on duty at all times.

Station 4. The newest of Kings County's fire stations, the South Hanford Fire Station, began operations as Station 4 in October, 2004. Replacing two well-aged fire stations, the new station is located on Houston Avenue just east of Hwy 43 at 7622 Houston Avenue in Hanford. Staffed with four personnel and two engines, the new station's response area includes the eastern portion of the county from Burris Park to Corcoran. Personnel include two captains



Five Mile Response Radius Map

Figure 4.12-1

Source: Kings County, 2009.

County of Kings

and two engineers. Equipment consists of an E-3 and E-8 -1999 3D Freightliner and a ladder truck. There are three firefighters on duty at all times.

Station 5. Station 5 is located at 11235 14th Avenue in Armona. The Armona Fire Station being centrally located in Kings County responds to a large area between the east and west county lines. Armona also provides mutual aid assistance to the City of Hanford when requested. The Armona station is also home to the Armona Volunteer Fire Department Company 5. Personnel include two captains and two engineers, and equipment includes a 1999 E-5 and a 3D Freightliner pumper. There are two firefighters on duty at all times. The Station also houses the Armona Volunteer Fire Department Company 5.

Station 6. The Island Fire Station is located 7735 21st Avenue in Lemoore. The Island station serves the northwestern areas of Kings County and provides mutual aid assistance to Fresno County when requested. Personnel include one captain and one engineer. Equipment includes a 1978 E-6 GMC and a 1984 S-6 Ford F-350. There is one firefighter on duty at all times.

Station 7. Station 7 is located at 1285 Lemoore Avenue in Lemoore. The station provides mutual aid to the Lemoore Volunteer Fire Department as well as back-up to the City of Hanford and the communities of Kettleman City and Stratford . This station is also the first unit to respond to emergencies at the Palace Indian Gaming Center. Personnel include two Captains and two Engineers, and equipment includes a 1998 3D Freightliner Engine and a 1998 Ford F-450 4x4 Squad. There are two firefighters on duty at all times.

Station 9. The Kettleman City Fire Station is located at 85 Brown Street in Kettleman City. Providing service to the citizens of Kettleman City and the city of Avenal, Station 9 responds to a great deal of traffic accidents on the Interstate 5 corridor through Kings County as well as providing mutual aid to Kern and Fresno Counties. Personnel include two captains and two engineers. Equipment includes one 1996 Navistar Engine, one 1986 FMC Engine, one 1999 3D Ford F-450, one 1974 Mack Water Tender, and a 1984 Chevy Squad. There are two firefighters on duty at all times.

Station 10. Stratford Fire Station is located at 20200 Main Street in Stratford. Station 10 is staffed by one captain and one engineer along with 10 Volunteer Firefighters. Six of the ten volunteers are qualified and experienced in fire apparatus operation. Equipment includes a patrol unit, pumper engine and a pumper truck reserve unit. There is one firefighter on duty at all times.

Station 11. The Corcoran Fire Station is located at 1033 Chittenden Avenue in Corcoran. The station is contracted with the City of Corcoran to provide emergency services to the city and south-eastern Kings County. The Corcoran station receives back-up response from the Station 7 and the Corcoran State Prison Fire Department. Personnel include two captains, one battalion chief, 13 full time firefighters, and 14 volunteers. Equipment includes three Class A engines, one lightweight truck/reserve truck, ambulance service, three pumps (1-1,000gm and 2-2,250gm), and 2 type-3 patrol vehicles. There are three firefighters on duty at all times.

Station 12. Station 12 is located in the City of Avenal at 516 E Fresno St. This station is contracted with the City of Avenal to provide services to the city and surrounding southwest portions of the County. Personnel includes two captains, two engineers, and nine volunteers.

Equipment includes two type-3 patrol truck units, two type-1 engines with 12 foot and 24 foot ladders and one reserve engine with a 12-foot ladder. There are two firefighters on duty at all times.

In 2007, Kings County Fire responded to over 4,900 calls averaging over 13 calls each day, including structure, vehicle, wildland and grass fires, medical aids, traffic accidents, hazardous materials incidents and various public assistance calls. Kings County Fire Department, in conjunction with American Ambulance, provides a wide array of emergency medical services to the public. Rapid response and quality emergency care services are provided by fire personnel and American Ambulance. All Kings County Firefighters are Emergency Medical Technicians and each of the 11 stations maintains and is trained in the use of Automated Electronic Defibrillators.

The Kings County Fire Department maintains a mutual aid agreement with the City of Hanford Fire Department and other outside agency fire departments. Additional agency fire departments include the City of Lemoore Volunteer Fire Department, Naval Air Station Lemoore Fire Department, and the Santa Rosa Rancheria Fire, which provides fire protection services to the Santa Rosa Rancheria. The California Department of Forestry (CDF) also responds to incidents in the State Responsibility Area that is southwest of State Route 33. There are no CDF Stations in Kings County, with the nearest responding stations located in Fresno County and San Luis Obispo County.

The latest addition to the Kings County Fire Department resources is the Fire Department's Search and Rescue Helicopter. This service is provided by Skylife Air Medical Service which operates through an agreement with Rogers Helicopters Inc. and American Ambulance, and is based at the Fresno Air Terminal. Through an agreement with Skylife, the County has a Bell 212 Helicopter stationed at the Kings County Fire Station No. 4 Heliport. The Department's Search and Rescue Helicopter is available for use within the County and other outside agencies when available and requested to respond to disasters or other critical incidents. The Kings County Fire Department Heliport also serves as the County's local staging area for SkyLife emergency medical helicopter transport.

Currently, the Fire Department has 18 firefighters on duty 24 hours a day, seven days a week and provides 0.26[1] fire fighters per 1,000 residents (based on a population of 70,062, which includes the Cities of Avenal and Corcoran as well as unincorporated Kings County[2], and excludes the population of Naval Air Station Lemoore and the Santa Rosa Rancheria. As such, the County Fire Department currently does the standard of 1.2 firefighters per 1,000 residents. In addition, none of the stations meet California Occupation Safety and Health (Cal OSHA) requirement that four firefighters must be present when firefighters need to enter and search a burning building. This requirement is also known as "two in, two out", which requires that if two firefighters are entering a burning building, two firefighters must remain outside the building to provide backup assistance if needed. Therefore, in the event of a fire, the next closest station is required to respond until a total of four firefighters are at the scene, which can

[1] *18 firefighters/(70,062 residents/1,000).*
[2] *The populations for Avenal and Corcoran as of 2008 are 16,609 and 26,047, respectively. The unincorporated population of Kings County less NASL and Santa Rosa Rancheria is 27,406.*

substantially delay fire suppression efforts (Mike Virden, Kings County Fire Department, Personal Communication, February 23, 2009).

b. Law Enforcement. The Kings County Sheriff's Department (KCSD) provides law enforcement services to all unincorporated areas of the County. KCSD headquarters is located at 1400 West Lacey, in Hanford. In addition, there are five substations located throughout the County in Avenal, Corcoran, El Rancho, Kettleman City and Stratford. It should be noted that the while KCSD has a substation in Armona, it is not currently in service because of budget constraints. The average response time is approximately 20 minutes.

The Kings County Sheriff's Department staffs 32 deputies out of its Headquarters. There are four shifts consisting of eight deputies, which include one sergeant, one senior deputy, a canine deputy and four beat deputies (Commander Dave Putnam, Kings County Sheriff's Department, March 5, 2009). These deputies are responsible for providing service to unincorporated areas near Hanford, Lemoore, Corcoran and the communities of Armona, Home Garden, and Stratford. Additional deputies are staffed from the Kettleman City station and patrol Kettleman City and other unincorporated areas nearby. There are three deputies on duty at all times in this area, consisting of a supervisor and two deputies (Commander Dave Putnam, Kings County Sheriff's Department, March 5, 2009). Generally, there are 11 deputies on duty at all times throughout the County when the sheriffs department is fully staffed (Commander Dave Putnam, Kings County Sheriff's Department, March 5, 2009). It should be noted that staffing fluctuates and it is possible that 11 deputies may not be on duty at all times. However, under-staffing is generally a short-term occurrence and for the purposes of this analysis is it assumed that 11 deputies are available at all times. The County Sheriff's Department strives to maintain a service ratio of one sheriff per 1,000 residents. Based on a population of 27,406, the Sheriff's Department provides 0.4 deputies per 1,000 residents.

The California Highway Patrol provides additional traffic enforcement along State Highways and County roadways. Kings County is within the California Highway Patrol's (CHP) Central Division which encompasses the heart of the San Joaquin Valley. The County's CHP area office is located at 1565 Glendale Avenue in Hanford. In addition to issuing traffic citations for traffic violations, CHP provides other services support the overall safety of residents in the County. The Central Division implements the Skywatch program in an effort to reduce accidents involving commercial vehicles. The program uses fixed wing aircraft, RADAR, and LIDAR, to police commercial vehicles and passenger vehicles operating unsafely on State Route 99 and Interstate 5.

c. Public Schools. There are 15 school districts and 64 individual schools located throughout Kings County. These districts and schools vary in size and the number of students served. Countywide enrollment for the 2007/2008 school year totaled 28,277.

Table 4.12-1 shows the districts by name and the 2007/2008 school year student enrollment for each district. Table 4.12-2 below shows each school by name, grade levels served, 2007/2008 enrollment and the district in which it is located.

Table 4.12-1. Kings County School District and 2007/2008 Enrollment

District Name	2007/2008 Enrollment
Armona Union Elementary	1,676
Central Union Elementary	1,941
Corcoran Joint Unified	3,211
Delta View Joint Union Elementary	101
Hanford Elementary	5,449
Hanford Joint Union High	3,873
Island Union Elementary	267
Kings County Office of Education	540
Kings River-Hardwick Union Elementary	643
Kit Carson Union Elementary	458
Lakeside Union Elementary	355
Lemoore Union Elementary	3,320
Lemoore Union High	2,264
Pioneer Union Elementary	1,589
Reef-Sunset Unified	2,590
County Total	**28,277**

Source: California Department of Education. http://www.ed-data.k12.ca.us

Table 4.12-2. Schools within Kings County and 2007/2008 Enrollment

District Name	School Name	Grades	2007/2008 Enrollment
Armona Union Elementary	Armona Elementary	K-4	581
Armona Union Elementary	California Virtual Academy @ Kings	K-12	448
Armona Union Elementary	Crossroads Charter	K-12	231
Armona Union Elementary	Parkview Middle	5-8	416
Central Union Elementary	Akers Elementary*	K-8	709
Central Union Elementary	Central Elementary	K-8	384
Central Union Elementary	R. J. Neutra*	K-5	532
Central Union Elementary	Stratford Elementary	K-8	316
Corcoran Joint Unified	Bret Harte Elementary	K-1	520
Corcoran Joint Unified	Corcoran Academy	K-12	8
Corcoran Joint Unified	Corcoran High	9-12	876
Corcoran Joint Unified	John C. Fremont Elementary	2-3	477
Corcoran Joint Unified	John Muir Middle	6-8	765
Corcoran Joint Unified	Kings Lake Education Center	7-12	39
Corcoran Joint Unified	Mark Twain Elementary	3-5	526
Delta View Joint Union Elementary	Delta View Elementary	K-8	101
Hanford Elementary	George Washington Elementary	K-6	590
Hanford Elementary	Hamilton Elementary	K-6	531
Hanford Elementary	Hanford Elementary Community Day	1-6	20
Hanford Elementary	John F. Kennedy Junior High	7-8	539
Hanford Elementary	Joseph M. Simas	K-6	563
Hanford Elementary	Lee Richmond Elementary	K-6	447
Hanford Elementary	Lincoln Elementary	K-6	492
Hanford Elementary	Martin Luther King Jr. Elementary	K-6	570
Hanford Elementary	Monroe Elementary	K-6	539
Hanford Elementary	Roosevelt Elementary	K-6	522
Hanford Elementary	Woodrow Wilson Junior High	7-8	636
Hanford Joint Union High	Earl F. Johnson High (Continuation)	10-12	125
Hanford Joint Union High	Hanford Community Day	9-12	2
Hanford Joint Union High	Hanford High	9-12	1846

Table 4.12-2. Schools within Kings County and 2007/2008 Enrollment

District Name	School Name	Grades	2007/2008 Enrollment
Hanford Joint Union High	Hanford Night (Continuation)	9-12	37
Hanford Joint Union High	Hanford West High	10-12	1863
Island Union Elementary	Island Elementary	K-8	267
Kings County Office of Education	J. C. Montgomery	K-12	77
Kings County Office of Education	Kings County Community	7-12	185
Kings County Office of Education	Kings County Special Education	K-12	277
Kings River-Hardwick Union Elementary	Kings River-Hardwick Elementary	K-8	643
Kit Carson Union Elementary	Kit Carson Elementary	K-8	436
Kit Carson Union Elementary	Mid Valley Alternative Charter	K-8	22
Lakeside Union Elementary	Gardenside Elementary	K-3	159
Lakeside Union Elementary	Lakeside Community Day	K-8	3
Lakeside Union Elementary	Lakeside Elementary	4-8	193
Lemoore Union Elementary	Cinnamon Elementary	K-6	590
Lemoore Union Elementary	Lemoore Elementary	K-6	679
Lemoore Union Elementary	Lemoore University Elementary Charter	5-8	216
Lemoore Union Elementary	Liberty Middle	7-8	582
Lemoore Union Elementary	Meadow Lane Elementary	K-6	586
Lemoore Union Elementary	P. W. Engvall Elementary	K-6	667
Lemoore Union High	Gundacker Community Day	9-12	7
Lemoore Union High	Jamison (Donald C.) High (Continuation)	9-12	83
Lemoore Union High	Lemoore High	9-12	2070
Lemoore Union High	Lemoore Middle College High	9-12	87
Lemoore Union High	Yokuts High	9-12	17
Pioneer Union Elementary	Pioneer Elementary	K-4	879
Pioneer Union Elementary	Pioneer Middle	5-8	710
Reef-Sunset Unified	Adelante High	9-12	5
Reef-Sunset Unified	Avenal Elementary	K-5	768
Reef-Sunset Unified	Avenal High	9-12	646
Reef-Sunset Unified	Kettleman City Elementary	K-8	302
Reef-Sunset Unified	Reef Sunset Middle	6-8	461
Reef-Sunset Unified	Reef-Sunset Primary Community Day	1-6	2
Reef-Sunset Unified	Reef-Sunset Secondary Community Day	7-12	18
Reef-Sunset Unified	Sunrise High (Continuation)	9-12	45
Reef-Sunset Unified	Tamarack Elementary	K-5	343
Total			**28,277**

**School is located within the Naval Air Station Lemoore.*
Source: California Department of Education. http://www.ed-data.k12.ca.us

Data on current capacity of the districts and schools within each district was not available for every district. Each district was contacted to collect such information; however, several of the districts do not currently have data on capacity for several reasons. First, because schools are expanded on an as needed basis, districts indicated that capacity is not closely monitored unless indicators of overcrowding are present. Additionally, capacity is typically determined when completing a Developer Fee Justification Study. Several of the districts have completed Developer Fee Studies; however, some studies are out dated.

It should be noted however, that Stratford Elementary, one of four school sites within the Central Union Elementary School District, is specifically identified as being near maximum capacity. The Stratford School enrollment encompasses the entire Stratford Community, and continues to operate near capacity with limited funding because the majority of students attend

other schools within the district. Future plans have been made for eight additional portable classrooms for the Stratford Elementary which could house 160 to 240 students. However, additional portables or building of classrooms at Central School is restricted due to water storage issues and lack of fire protection.

d. Regulatory Framework.

California State Assembly Bill 2926—School Facilities Act of 1986 . In 1986, AB 2926 was enacted by the state of California authorizing entities to levy Statutory Fees on new residential and commercial/industrial development in order to pay for school facilities. AB 2926, entitled the "School Facilities Act of 1986," was expanded and revised in 1987 through the passage of AB 1600, which created Section 66000 et seq. of the Government Code. Under this statute, payment of such Statutory Fees by developers would serve as total mitigation in accordance with CEQA to satisfy the impact of development on school facilities.

California Government Code Section 65995—School Facilities Legislation. The School Facilities Legislation was enacted to generate revenue for school districts for capital acquisitions and improvements. As of 2009, this legislation allows a maximum one-time fee of $2.97 per square foot of residential development and $0.47 per square foot of commercial development. This fee is divided between the primary and secondary schools and is termed a "Level One" fee.

The passage of SB 50 in 1998 defined the Needs Analysis process in Government Code Sections 65995.5-65998. Under the provisions of SB 50, school districts may collect Level Two and Level Three fees to offset the costs associated with increasing school capacity in response to student enrollment increases associated with residential developments. Level Two fees require the developer to provide one-half of the costs of accommodating students in new schools, while the State would provide the other half. Level Three fees require the developer to pay the full cost of accommodating the students in new schools and would be implemented at the time the funds available from Proposition 1A (approved by the voters in 1998) are expended. School districts must demonstrate to the State their long-term facilities needs and costs based on long-term population growth to qualify for this source of funding, however, voter approval of Proposition 55 on March 2, 2004, precludes imposition of the Level Three fee for the foreseeable future. Therefore, once qualified, the districts may impose only Level Two fees, as calculated per SB 50.

4.12.2 Impact Analysis

a. Methodology and Significance Thresholds.

Fire Protection Service. Information on current service demands and available staff and equipment was provided by the Kings County Fire Department. The Fire Department uses the National Fire Protection Association (NFPA) standard for fire protection services, which requires 1.2 firefighters per 1,000 residents. In addition, the Fire Department considers any development outside the five miles response zone to be an impact to fire protection services. Should development facilitated by the 2035 General Plan decrease this service ratio such that it would require the construction of new or expanded facilities, significant impacts could result. In addition, development that would occur outside the five mile response zone could result in significant impacts.

Law Enforcement Service. Information on current service demands and available staff and equipment was provided by Commander Dave Putnam of the Kings County Sheriff's Department. A Sheriff Department's goal is to provide one officer per 1,000 residents. If development facilitated by the 2035 General Plan decreases this service ratio such that it would require the construction of new or expanded facilities, significant impacts could result.

Public Schools. Information on current school facilities was provided by the various school districts throughout the County and the Education Data Partnership (www.ed-data.k12.ca.us). Specifically, information pertaining to current school enrollments was collected from the Education Data Partnership. Student generation rates, provided by the various districts as contained within the most recent developer impact fee report, were used to estimate potential future enrollments as a result of the population increase associated with the 2035 General Plan Update. Because current information on district and school capacity was not readily available for all districts and schools, the analysis will disclose the expected increase in students based on the most recent information as contained within recent Developer Fee Studies for Lakeside Union Elementary, Pioneer Union Elementary, Corcoran Unified, Armona Union Elementary and Hanford Joint Union High School District. The student generation rates used by the following analysis are based on an average derived from available Developer Fee Justification Studies. The generation rates are 0.55 students per household for kindergarten through eighth grade and 0.18 students per household for ninth through twelfth grade.

Impacts would be significant if development facilitated by the 2035 General Plan would cause student enrollment to increase such that new or expanded school facilities would be required, the construction of which could cause environmental impacts.

b. Project and Cumulative Impacts.

Impact PS-1 Development facilitated by the 2035 General Plan would increase demand for fire protection service; however, new or expanded facilities would not be required. Impacts would be Class III, *less than significant*.

Currently, the Fire Department provides 0.64 firefighters per 1,000 residents throughout the County. The 2035 General Plan could result in an additional 4,800 residential units, which could result in an additional 16,863 residents (4,800 dwelling units x 3.513 people/dwelling unit) for a total population of 86,925 in the year 2035, which includes the existing population of the City of Avenal and Corcoran. This population increase would further diminish the existing service ratio to 0.21 firefighters per 1,000 residents. However, this decrease in the service ratio would not require new or expanded fire facilities. Currently, there are 10 fire stations located throughout the County. The areas that would accommodate the majority of additional growth under the 2035 General Plan would be the communities of Armona, Home Garden, Kettleman City and Stratford and the urban fringes adjacent to existing cities. These areas have fire stations located within five miles, as shown in Figure 4.12-1. Specifically, Armona, Home Garden, Kettleman City and Stratford each have stations located within their respective community plan boundaries.

The growth that may occur in non-district areas would primarily occur on the urban fringes of the cities. This growth would be directed to the adjacent city that will be providing services for

annexation. Therefore, because there are existing stations such that optimum service can be provided, no new station would be required (Mike Virden, Kings County Fire Department, Personal Communication, February 23, 2009). However, because the increase in population would further diminish existing levels service ratios, an additional 86 on-duty full time firefighters would be needed incrementally over the planning horizon of the 2035 General Plan.

The 2035 General Plan would require that adequate fire protection service ratios are maintained as development occurs. In addition, in accordance with County Ordinance 633, future development would be required to pay impact mitigation fees, which is the funding equivalent to the provision of additional firefighters. Therefore, impacts would be less than significant.

For informational purposes, each community plan area is discussed below to determine the specific needs of each planning area since each area's needs would vary. It should be noted that the needs identified below are accounted for in the analysis above.

Armona

The *Armona Community Plan* would accommodate an additional 1,623 residential units. Based on the Armona community average of 3.68 persons per household, this would result in an additional 5,973 residents and a total population of 9,212. This population increase would require an additional nine firefighters beyond the two currently provided. These additional firefighters would be needed incrementally over the planning horizon of the *Armona Community Plan* presuming full buildout is realized, but new or expanded fire facilities would not be needed. As development occurs with the community, the Community Plan would require that additional firefighters are provided as needed and adequate service ratios are maintained and development would be required to pay fees in accordance with County Ordinance 633. Therefore, impacts would be less than significant.

Home Garden

The *Home Garden Community Plan* would accommodate an additional 294 residential units. Based on Home Garden's average persons per household (3.95), this would result in an additional 1,162 residents and a total population of 2,864. This population increase would require one additional firefighters beyond the three currently provided. These additional firefighters would be needed incrementally over the planning horizon of the *Home Garden Community Plan* presuming full buildout is realized, but new or expanded fire facilities would not be needed. As development occurs, the Community Plan would require that additional firefighters are provided as needed and adequate service ratios are maintained. Development would be required to pay fees in accordance with County Ordinance 633. Therefore, impacts would be less than significant.

Kettleman City

The *Kettleman City Community Plan* would accommodate an additional 975 residential units. Based on Kettleman City's current average of 4.68 persons per household for existing units and 3.30 persons per household for future units, this would result in an additional 3,218 residents and a total population of 4,717. This population increase would require an additional four firefighters beyond the two currently provided. These additional firefighters would be needed

incrementally over the planning horizon of the *Kettleman City Community Plan* presuming full buildout is realized, but new or expanded fire facilities would not be needed. As development occurs, the Community Plan would require that additional firefighters are provided as needed and adequate service ratios are maintained. Development would be required to pay fees in accordance with County Ordinance 633. Therefore, impacts would be less than significant.

Stratford

The *Stratford Community Plan* would accommodate an additional 444 residential units, based on Stratford's current persons per household (4.33), this would result in an additional 1,923 residents and a total population of 3,187. This population increase would require an additional three firefighters beyond the one currently provided. These additional firefighters would be needed incrementally over the planning horizon of the *Stratford Community Plan* presuming full buildout is realized, but new or expanded fire facilities would not be needed. As development occurs, the Community Plan would require that additional firefighters are provided as needed and adequate service ratios are maintained. Development would be required to pay fees in accordance with County Ordinance 633. Therefore, impacts would be less than significant.

General Plan Policies which Reduce Impacts. The *2035 General Plan Health and Safety Element* includes the following policies, the implementation of which would reduce potential impacts to fire protection services.

HS Policy B1.4.3 *Ensure that County Fire Department personnel remain trained and equipped to provide emergency medical services to those in need of such services within the unincorporated areas of the County.*

HS GOAL C2 *Support Countywide safety through adequate law enforcement, quality fire protection, emergency preparedness, and accessibility in times of emergency.*

HS Objective C2.2 *Provide quality fire protection services throughout the County by the Kings County Fire Department, and Fire safety preventative measures to prevent unnecessary exposure of people and property to fire hazards in both County Local Responsibility Areas and State Responsibility Area.*

HS Policy C2.2.1 *Community planning efforts should evaluate the projected need for Fire Department personnel and equipment and necessary funding support to maintain current levels of service as community growth occurs.*

HS Policy C2.2.2 *Development proposals and code revisions shall be referred to the County Fire Department for review and comment.*

HS Policy C2.2.3 *Use the 1997 Uniform Code for the abatement of Dangerous Buildings. All new structures to be occupied shall be built to current Fire Code Standards.*

HS Policy C2.2.4 *Review development proposals according to California Department of Forestry and Fire Protection "Fire Hazard Severity Zone Maps" to*

determine whether a site is located within a Very High Fire Hazard Severity Zone and subject to Wildland-Urban Interface Fire Area Building Standards and defensible space requirements as adopted under Senate Bill 1595 and effective January 1, 2009.

HS Policy C2.2.5 *Forward for review and comment all proposed structures within the State Responsibility Area to the California Department of Forestry and Fire Protection within all State Responsibility Areas.*

HS Objective C3.3 *Maintain sufficient operational area clearance for the Kings County Fire Department Heliport that serves Kings County Fire Department Search and Rescue helicopter and contracted helicopter ambulance services which are critical to emergency response and safety of people within the region.*

HS Policy C3.3.1 *Critically review new development proposals within a quarter mile of the Kings County Fire Department heliport to ensure compatibility of structures and uses with the operation of helicopters at County Fire Station No. 4.*

The *2035 Armona Community Plan* includes the following policies, the implementation of which would reduce potential impacts to fire protection services within Armona.

ACP GOAL 7B *Continue to provide quality service for fire protection and emergency medical response in the community.*

ACP Objective 7B.1 *Expand the Fire Department Station personnel and equipment as the community grows to maintain the current level of service.*

ACP Policy 7B.1.1 *Fire Department services shall increase as the Armona population grows in order to maintain existing levels of service.*

ACP Policy 7B.1.2 *Adequate water supply shall be maintained throughout the Armona fire hydrant system.*

The *2035 Home Garden Community Plan* includes the following policies, the implementation of which would reduce potential impacts to fire protection services within Home Garden.

HGCP GOAL 7B *Continue to provide quality service for fire protection and emergency medical response in the community.*

HGCP Objective 7B.1 *Ensure sufficient infrastructure and water pressure is available and maintained to support continued fire protection service at current levels.*

HGCP Policy 7B.1.1 *Adequate water supply and water pressure shall be maintained throughout the Home Garden fire hydrant system.*

The *2035 Kettleman City Community Plan* includes the following policies, the implementation of which would reduce potential impacts to fire protection services within Kettleman City.

KCCP GOAL 7B *Continue to provide quality service for fire protection and emergency medical response in the community.*

KCCP Objective 7B.1 *Expand the Fire Department Station personnel and equipment as the community grows to maintain the current level of service.*

KCCP Policy 7B.1.1 *Fire Department staffing at the Kettleman City Fire Station No. 9 shall increase to maintain four firefighters on station when the New Downtown Mixed Use is built out or according to population increases through new residential development. 2,500 - 3,000 residents shall require 3 firefighters on station, and 3,500 - 4,000 shall require a total of 4 firefighters on station.*

KCCP Policy 7B.1.2 *New Commercial and Residential structures shall require a development impact fee for Fire Department Services and property assessment to support additional Fire staff.*

KCCP Policy 7B.1.3 *New structures shall not exceed two stories in height unless adequate fire equipment is provided that can reach beyond two stories or other alternatives are found acceptable to the Kings County Fire Department.*

KCCP Policy 7B.1.4 *Water pressure necessary to support new development shall be required to support a 1,000 gallon per minute/2 hour duration for Residential, and a 1,500 gallon per minute/2 hour duration for Commercial.*

KCCP OBJ 7B.2 *Provide emergency medical services in the community to meet the needs of a growing population.*

KCCP Policy 7B.2.1 *Emergency medical services such as an Ambulance should be considered for placement in the community once the population reaches 6,400.*

The *2035 Stratford Community Plan* includes the following policies, the implementation of which reduce potential impacts to fire protection services within Stratford.

SCP Objective 7B.1 *Expand the Fire Department Station personnel and equipment as the community grows to maintain the current level of service.*

SCP Policy 7B.1.1 *Fire Department services shall increase as the Stratford population grows in order to maintain existing levels of service.*

SCP Policy 7B.1.2 *Adequate water supply and water pressure shall be maintained throughout the Stratford fire hydrant system.*

Mitigation Measures. No mitigation measures are required.

Significance after Mitigation. Impacts would be less than significant without mitigation.

Impact PS-2 Development facilitated by the 2035 General Plan would increase demand for law enforcement service, but would not result in the need to construct new law enforcement facilities. Impacts would be Class III, *less than significant*.

Law enforcement services are not "facility-driven;" that is, they do not rely primarily on facilities to effectively patrol a beat. An expansion of, or intensification of development within a beat, does not necessarily result in the need for additional facilities if police officers and patrol vehicles are equipped with adequate telecommunications equipment to communicate with police headquarters. However, if the geographical area of a beat is expanded, population increases, or intensification/redevelopment of an existing beat results in the need for new police officers, new or expanded facilities could be needed. This is not the case with the 2035 General Plan.

Nonetheless, the Sheriff's Department is inadequately staffed to provide service to the existing population of Kings County. Currently, the department provides 0.4 deputies per 1,000 residents. The goal of the department is to provide one deputy per 1,000 residents. The 2035 General Plan would result in an additional 4,800 residential units upon buildout. Based on the average of 3.513 persons per household, the population of the County would increase by 16,863 residents. When added to the existing population (excluding NAS Lemoore and including Santa Rosa Rancheria[3]), the unincorporated County total population would be 44,789. This population would demand a total of 44 deputies, or 33 additional deputies from current staffing levels. Without hiring additional deputies, this population would result in a service ratio of 0.25 deputies per 1,000 residents. Current staffing shortages; however, are a function of limited funding rather than inadequate facilities to maintain operations. In other words, adequate facilities exist to accommodate additional deputies, but funding is not available to provide them. Although the 2035 General Plan would further diminish police protection service ratios, the 2035 General Plan and Community Plans include several policies to mitigate potential impacts of population growth. In addition, no new or expanded police facilities would be required as a result of implementation of the 2035 General Plan. Furthermore, in accordance with County Ordinance 633, future development would be required to pay impact mitigation fees, which is the funding equivalent to the provision of additional firefighters. Therefore, impacts would be less than significant.

General Plan Policies which Reduce Impacts. The *2035 General Plan Health and Safety Element* includes the following policies, the implementation of which would reduce potential impacts to police protection services.

HS OBJC2.1 *Provide sufficient law enforcement presence within each community district and other unincorporated areas of the County to protect residents, businesses, and visitors from personal and property crimes.*

HS Policy C2.1.1 *Develop community plans that explore community safety programs, such as implementation of a Citizens on Patrol program or Neighborhood Watch program.*

[3] The Kings County Sheriff's Department serves the Santa Rosa Rancheria area.

HS Policy C2.1.2 *Promote community safety by ensuring communities have sufficient sheriff coverage to provide 20 minute or faster response times to priority emergency calls.*

HS Policy C2.1.3 *Evaluate new development within community districts to determine the extent of impact upon the Sheriff's Department ability to provide adequate patrols necessary to cover the additional population.*

HS Policy C2.1.4 *The Sheriff's Department should encourage Deputies assigned to community districts to participate in the community's functions and activities to build rapport with residents and reinforce a law enforcement presence.*

The *2035 Armona Community Plan* includes the following policies, the implementation of which would reduce potential impacts to police protection services within Armona.

ACP GOAL 7A *Provide a safe and healthy small town community environment in which residents can peacefully live, work, and play.*

ACP OBJ 7A.1 *Provide sufficient law enforcement to protect residents from personal and property crimes.*

ACP Policy 7A.1.1 *Promote community safety by providing sufficient sheriff patrol coverage to provide 20 minute or faster response time to priority emergency calls.*

ACP Policy 7A.1.2 *New development should be evaluated for the extent of impact it may have in relation to the adequacy of the Sheriff's Department to provide adequate patrols necessary to cover the additional population.*

ACP Policy 7A.1.3 *The Sheriff's Department should encourage Deputies assigned to Armona to participate in the community's functions, and actively promote safety by implementing community safety programs.*

The *2035 Home Garden Community Plan* includes the following policies, the implementation of which would reduce potential impacts to police protection services within Home Garden.

HGCP GOAL 7A *Provide a safe and healthy small town community environment in which residents can peacefully live, work, and play.*

HGCP OBJ7A.1 *Provide sufficient law enforcement to protect residents from personal and property crimes.*

HGCP Policy 7A.1.1 *Promote community safety by providing sufficient sheriff patrol coverage to provide 20 minute or faster response time to priority emergency calls.*

HGCP Policy 7A.1.2 *The Sheriff's Department should encourage Deputies assigned to Home Garden to participate in the community's functions, and actively promote safety by implementing community safety programs.*

The *2035 Kettleman City Community Plan* includes the following policies, the implementation of which would reduce potential impacts to police protection services within Kettleman City

KCCP GOAL 7A	*Provide a safe and healthy small town community environment in which residents can peacefully live, work, and play.*
KCCP OBJ 7A.1	*Provide sufficient law enforcement to protect residents from personal and property crimes.*
KCCP Policy 7A.1.1	*Promote community safety by providing sufficient sheriff patrol coverage to provide 20 minute or faster response time to priority emergency calls.*
KCCP Policy 7A.1.2	*New development should be evaluated for the extent of impact it may have in relation to the adequacy of the Sheriff's Department to provide adequate patrols necessary to cover the additional population.*
KCCP Policy 7A.1.3	*The Sheriff's Department should encourage Deputies assigned to Kettleman City to participate in the community's functions, and actively promote safety by implementing community safety programs.*
KCCP Policy 7A.1.4	*Implement a Citizens on Patrol program and/or a Neighborhood Watch program through the Kings County Sheriff's Department.*
KCCP Policy 7A.1.5	*Ensure traffic enforcement is adequately provided along State Highway 41 by the California Highway Patrol.*

The *2035 Stratford Community Plan* includes the following policies, the implementation of which would reduce potential impacts to police protection services within Stratford.

SCP GOAL 7A	*Provide a safe and healthy small town community environment in which residents can peacefully live, work, and play.*
SCP OBJ 7A.1	*Provide sufficient law enforcement to protect residents from personal and property crimes.*
SCP Policy 7A.1.1	*Promote community safety by providing sufficient sheriff patrol coverage to provide 20 minute or faster response time to priority emergency calls.*
SCP Policy 7A.1.2	*New development should be evaluated for the extent of impact it may have in relation to the adequacy of the Sheriff's Department to provide adequate patrols necessary to cover the additional population.*
SCP Policy 7A.1.3	*The Sheriff's Department should encourage Deputies assigned to Stratford to participate in the community's functions, and actively promote safety by implementing community safety programs.*

Mitigation Measures. No significant impacts were identified, so no mitigation is required.

Significance after Mitigation. Impacts would be less than significant without mitigation.

Impact PS-3 Development that would be accommodated by the 2035 General Plan could increase student enrollment such that new or expanded school facilities are needed. However, the payment of State-mandated school impact fees is deemed full mitigation by the State of California. Therefore, impacts to schools would be Class III, *less than significant*.

Development facilitated by the 2035 General Plan would likely increase enrollment of schools within the various districts throughout the County. The 2035 General Plan would accommodate up to 4,800 residential units throughout its planning horizon. Based on student generation rates of 0.55 for K-8 and 0.18 for high school, development under the 2035 General Plan could generate up to 2,640 K-8 students and 864 high school students. Currently, all districts within the County serve a total student population of 28,277. The 2035 General Plan represents a 12 percent increase from current student enrollment levels. This increase in student enrollment may require new or expanded school facilities. However, because development would occur incrementally over the next 26 years, it is unlikely that schools would be impacted immediately. Rather, as development occurs over the next 26 years, schools would modify their facilities on an as needed basis. In addition, the development that could occur under the 2035 General Plan would be required to pay impact mitigation fees as required by the various districts' Developer Fee Justification Studies.

Although development facilitated by the 2035 General Plan may increase student enrollment and cause various districts to exceed operating capacity of their schools thereby requiring new or expanded facilities, Section 65995(h) of the California Government Code (Senate Bill 50, chaptered August27, 1998) states that payment of statutory fees *"...is deemed to be full and complete mitigation of the impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization."* Therefore, pursuant to compliance with CGC §65994(h), impacts relating to schools would be less than significant.

Because the majority of development that would be accommodated by the 2035 General Plan would occur within the community plan areas, potential impacts to each plan area are discussed below. Please note that the estimated student generation by each community plan area is already accounted for in the analysis above.

Armona

The *Armona Community Plan* would accommodate an additional 1,623 residential units. Based on student generation rates of 0.55 for K-8 and 0.18 for high school, development under the *Armona Community Plan* could generate up to 892 K-8 students and 292 high school students. Currently, all districts within the County serve a total student population of 28,277. The *Armona Community Plan* represents a 4 percent increase from current student enrollment levels. This increase in student enrollment may require new or expanded school facilities. However, because development would occur incrementally over the next 26 years, it is unlikely that schools would be impacted immediately. Rather, as development occurs over the next 26 years,

schools would modify their facilities on an as needed basis. In addition, the development that could occur under the *Armona Community Plan* would be required to pay impact mitigation fees as required by the various districts' Developer Fee Justification Studies. As discussed above, payment of State-mandated impact mitigation fees would reduce any potential impacts to a less than significant level.

Home Garden

The *Home Garden Community Plan* would accommodate an additional 294 residential units. Based on student generation rates of 0.55 for K-8 and 0.18 for high school, development under the *Home Garden Community Plan* could generate up to161 K-8 students and 53 high school students. Currently, all districts within the County serve a total student population of 28,277. The *Home Garden Community Plan* represents a 0.7 percent increase from current student enrollment levels. This increase in student enrollment may require new or expanded school facilities. However, because development would occur incrementally over the next 26 years, it is unlikely that schools would be impacted immediately. Rather, as development occurs over the next 26 years, schools would modify their facilities on an as needed basis. In addition, the development that could occur under the *Home Garden Community Plan* would be required to pay impact mitigation fees as required by the various districts' Developer Fee Justification Studies. As discussed above, payment of State-mandated impact mitigation fees would reduce any potential impacts to a less than significant level.

Kettleman City

The *Kettleman City Community Plan* would accommodate an additional 975 residential units. Based on student generation rates of 0.55 for K-8 and 0.18 for high school, development under the *Kettleman City Community Plan* could generate up to 536K-8 students and 176 high school students. Currently, all districts within the County serve a total student population of 28,277. The *Kettleman City Community Plan* represents a 2.5 percent increase from current student enrollment levels. This increase in student enrollment may require new or expanded school facilities. However, because development would occur incrementally over the next 26 years, it is unlikely that schools would be impacted immediately. Rather, as development occurs over the next 26 years, schools would modify their facilities on an as needed basis. In addition, the development that could occur under the *Kettleman City Community Plan* would be required to pay impact mitigation fees as required by the various districts' Developer Fee Justification Studies. As discussed above, payment of State-mandated impact mitigation fees would reduce any potential impacts to a less than significant level.

Stratford

The *Stratford Community Plan* would accommodate an additional 444 residential units. Based on student generation rates of 0.55 for K-8 and .18 for high school, development under the *Stratford Community Plan* could generate up to 244 K-8 students and 80 high school students. Currently, all districts within the County serve a total student population of 28,277. The *Stratford Community Plan* represents a 1.1 percent increase from current student enrollment levels. Stratford School is currently operating near capacity and receives limited funding because the majority of students attend other schools within the district. As such, Stratford School cannot adequately meet the needs demanded. However, the *Stratford Community Plan* proposes several

policies which seek to address this issue, as well as other water and fire protection related issues and the development a funding mechanism for new or expanded facilities. Therefore, impacts would be less than significant.

General Plan Policies which Reduce Impacts. The *2035 General Plan Land Use Element* includes the following policies, the implementation of which would reduce potential impacts to schools.

LU Policy D1.4.7 *Refer any development proposal for five or more residential units which may have a direct or indirect impact on school facilities to the affected school district for review and comment.*

LU Policy D1.4.8 *Development shall pay school district impact fees, pursuant to Section 65995.(b) of the California Government Code, at the time a building permit is issued to finance the construction of school facilities made necessary by the development.*

LU Policy E1.2.6 *Development shall pay school district impact fees, pursuant to Section 65995.(b) of the California Government Code, at the time a building permit is issued to finance the construction of school facilities made necessary by the development.*

The *2035 Armona Community Plan* includes the following policies, the implementation of which would reduce potential impacts to schools.

ACP Policy 5D.1.1 *New public facilities established through new community growth shall be coordinated with District supported services.*

The *2035 Stratford Community Plan* includes the following policies, the implementation of which would reduce potential impacts to schools.

SCP GOAL 5D *Stratford School services remain a significant centralized educational service within the Community and continue to be supported by existing residences and new growth.*

SCP OBJ 5D.1 *Ensure the provision of adequate school facilities within Stratford to accommodate existing and future student population within the community.*

SCP Policy 5D.1.1 *New residential growth shall demonstrate that adequate water and wastewater service is available to support the continued public school services and facilities provided by Central Union School District.*

SCP Policy 5D.1.2 *New Community Expansion Area growth shall integrate the planning, provision and funding of a new school site or Charter School facility to accommodate new school children within the District.*

SCP Policy 5D.1.3 *A comprehensive analysis of new school funding strategies and recommendations should be prepared prior to formal consideration and approval of any new residential land subdivisions within the community.*

Mitigation Measures. No significant impacts were identified, so no mitigation measures are required.

Significance after Mitigation. Impacts would be less than significant without mitigation.

4.13 RECREATION

4.13.1 Setting

a. Existing Parks and Recreation Facilities. Parks and recreational resources are important to identify and evaluate because they provide an important measure of the physical quality of life in a community. Such resources enhance the County's aesthetic qualities, the health of the County's environment, and residents' perceptions and enjoyment of the County. Community parks are both recreation and open space resources, which can provide opportunities for both active and passive recreation, and can also include natural preserve areas.

There are six regional and community park facilities totaling 130.67 acres within unincorporated Kings County. The County owns and operates three regional parks—Burris, Hickey, and Kingston—which total 126.4 acres. These parks are located in the northern half of the County apart from urban concentrations. The Kettleman City and Armona Community Service Districts each maintain a community park within their respective service areas. Additionally, the draft 2035 General Plan includes six planned parks consisting of 13.33 acres. Table 4.13-1 describes the existing and planned park facilities located within unincorporated areas of the County.

Table 4.13-1. Kings County Park & Recreational Facilities

Park Name	Acreage	Type	Location
Existing Parks and Recreation Areas within County Limits			
Burris Park	57.0	Regional	Unincorporated County Land
Hickey Park	45.6	Regional	Unincorporated County Land
Kingston Park	23.8	Regional	Unincorporated County Land
Armona Park	3.2	Community	Armona
Kettleman City Park	1.1	Community	Kettleman City
Total Existing Acreage	***130.7***		
Planned Parks and Recreation Areas within County Limits			
North Expansion Area Park	3.5	Community	Armona
Armona Depot	1.4	Community	Armona
Home Garden Shaw Place Park	2.5	Community	Home Garden
Kettleman City Park	0.8	Community	Kettleman City
Kettleman City Park	1.0	Community	Kettleman City
Stratford Laurel Avenue Park	4.2	Community	Stratford
Total Planned Acreage	**13.4**		
Total Existing and Planned	**144.1**		

Source: Kings County Community Development Agency, 2009

Additional parkland and recreation facilities in and around Kings County, but not operated by the County, are also available to residents. These include: the Pixley National Wildlife Refuge, the Colonel Allensworth State Historic Park, four municipal parks, totaling 313 acres in the City of Avenal; two city parks totaling 91.9 acres, and one community swimming pool in the City of Corcoran; 169.1 acres of parkland and 58.1 acres of joint use sports fields in the City of Hanford; seven municipal parks, totaling 116.12 acres, in the City of Lemoore; and swimming, boating, fishing, and picnicking areas that are publicly and commercially available on the Kings River.

b. Regulatory Setting. The Quimby Act gives the legislative body of a City or County the authority, by ordinance, to require the dedication of land or payment of in-lieu fees, or a combination of both, for park and recreational purposes as a condition of approval of a tract map or parcel map. The County currently does not have an existing Quimby Act parks to population ratio requirement. The communities of Armona and Stratford have proposed a policy in their draft community plans to maintain a ratio of two acres of parkland per 1,000 residents. With a 2009 population of 27,406 (excluding the Naval Air Station Lemoore [NAS Lemoore] and Santa Rosa Rancheria population) and 130.7 acres of existing parkland, the unincorporated County currently provides approximately 4.8 acres of parkland per 1,000 residents, which is more than the standard of two acres per 1,000 population (California Department of Finance, 2008).

Of the total population for the unincorporated County (27,406 residents; excluding the NAS Lemoore and Santa Rosa Rancheria population), Armona has 3,239 residents, Home Garden has 1,702 residents, Kettleman City has 1,499 residents, and Stratford has 1,264 residents (California Department of Finance, January 2009). Based on these populations and the total acreage of existing parkland within each community, not including the three regional parks, from Table 4.13-1, Armona provides 0.8 acres per 1,000 residents, which is less than its standard of two acres per 1,000 population; Kettleman City provides 0.7 acres per 1,000 residents. Home Garden and Stratford do not have any existing parkland, which is less than their standard of two acres per 1,000 population.

4.13.2 Impact Analysis

a. Methodology and Significance Thresholds. The communities of Stratford and Armona have a standard requirement of two acres of parkland per 1,000 residents. Impacts are significant if a development project causes the County and communities to contain less than two acres of parkland per 1,000 residents (pursuant to their applicable standard), or otherwise results in inconsistencies with the Quimby Act and the proposed community plans.

Additionally, in accordance with Appendix G of the State CEQA Guidelines, an impact is considered significant if physical changes that could be facilitated by buildout of the 2035 General Plan would result in one or more of the following conditions:

- *The project would increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or*
- *The project includes recreational facilities or requires the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.*

b. Project and Cumulative Impacts.

Impact REC-1 Development facilitated by the 2035 General Plan would increase the County population and proportionate demand on parkland. Total available parkland would be adequate upon buildout of the 2035 General Plan, but individual community plan areas would not meet parkland standards for their respective community. However, development of proposed parks and payment of in-lieu fees would reduce potential impacts to Class III, *less than significant.*

The 2035 General Plan would facilitate a maximum of about 4,800 residential units. Based on the County's average household size of 3.513 (California Department of Finance, 2008), this would generate a population increase estimated at 16,863 new residents, which would bring the unincorporated portion of the County's population excluding the NAS Lemoore and Santa Rosa Rancheria population to about 44,269 in 2035. To maintain the County's Quimby Act parkland to population ratio of two acres per 1,000 residents, the County would require 88.5 acres of parkland. The County already meets this standard with its 130.7 acres of existing parkland, and would provide an additional 13.4 acres upon completion of planned park facilities. This would equate to 3.25 acres of parkland per 1,000 residents, as shown in Table 4.13-2. Therefore, because adequate parkland would be available upon buildout of the 2035 General Plan, new or expanded facilities beyond those already proposed would not be required. Impacts would therefore be less than significant.

Table 4.13-2. Countywide Comparison of Parks to Population

Current Population (DOF 2008)	Current Parkland	Existing Parkland to Population Ratio	Existing + Future Population	Existing + Future Parkland	Future Parkland to Population Ratio
27,406residents	130.7 acres	4.8 acres / 1,000 residents	44,788 residents	144.0 acres	3.2 acres / 1,000 residents

Because each individual community plan area has set forth differing parkland standards, an individual analysis of each plan area follows. Please note that the existing and planned park facilities discussed are included in the countywide calculations above. The intent of this analysis is to determine whether each community plan area would provide adequate parkland relative to its population, regardless of parkland that may be available outside of the community plan area boundaries. Should certain community plan areas not meet parkland standards, it should be noted that adequate parkland is available throughout the County with respect to Quimby Act standards for community plan area populations.

Armona

The *Armona Community Plan* establishes a parkland to population ratio of two acres per 1,000 residents. Using this standard, the Community currently requires 6.5 acres of parkland to serve its current population of 3,239 (DOF 2008). Since the Community has about 3.2 acres of existing parkland, there is a 3.3-acre deficit in parkland in Armona. Development under the 2035 General Plan through the year 2035 would generate an increase in population up to 5,973 residents (3.68 persons per household x 1,623 residential units), for a total population of

approximately 9,212 residents, and would contribute to this deficiency by adding a need for additional parkland. Using the two acres per 1,000 residents standard, the Community would require a total of 18.4 acres of parkland. Both existing and planned park facilities within Armona would provide 8.1 acres of parkland, or 0.9 acres of parkland per 1,000 residents, as shown in Table 4.13-3.

Table 4.13-3. Comparison of Parks to Population in the Armona Community Plan Area

Current Population (DOF 2008)	Current Parkland	Existing Parkland to Population Ratio	Existing + Future Population	Existing + Future Parkland	Future Parkland to Population Ratio
3,239 residents	3.17 acres	1.0 acre / 1,000 residents	9,212 residents	8.1 acres	0.9 acres / 1,000 residents

This ratio does not meet the standard of two acres of parkland per 1,000 residents because the Community would experience a parkland shortfall of 10.3 acres. However, future development within Armona would be required to pay park in-lieu fees. Payment of in-lieu park fees would result in funding equivalent to the provision of public parks in accordance with State Quimby Act standards. Upon compliance with these existing requirements, impacts would be less than significant.

Home Garden

The *Home Garden Community Plan* does not contain a defined Quimby Act standard. Using the established standard of two acres per 1,000 residents required by the *Armona and Stratford Community Plans*, the Community would require 3.4 acres of parkland to serve its current population of 1,702 (DOF 2008). Since the Community does not have any existing parkland, there is a 3.4 acre deficit in parkland in Home Garden. Development under the 2035 General Plan would generate an increase in population up to 1,161 residents (3.95 persons per household x 294 residential units), for a total population of approximately 2,863 residents, and would contribute to this deficiency by adding a need for additional parkland. Using the two acres per 1,000 residents standard, the Community would require a total of 5.7 acres of parkland. Planned park facilities within Home Garden would provide 2.5 acres of parkland, or 0.9 acres of parkland per 1,000 residents, as shown in Table 4.13-4.

Table 4.13-4. Comparison of Parks to Population in the Home Garden Community Plan Area

Current Population (DOF 2008)	Current Parkland	Existing Parkland to Population Ratio	Existing + Future Population	Existing + Future Parkland	Future Parkland to Population Ratio
1,702 residents	0 acres	0 acres / 1,000 residents	2,863 residents	2.5 acres	0.9 acres / 1,000 residents

This ratio does not meet the standard of two acres of parkland per 1,000 residents, and the Community would experience a parkland shortfall of 3.2 acres. However, future development within Home Garden would be required to pay in-lieu fees. Payment of in-lieu park fees would result in funding equivalent to the provision of public parks in accordance with State Quimby

Act standards. Upon compliance with these existing requirements, impacts would be less than significant.

Kettleman City

The *Kettleman City Community Plan* does not contain a defined Quimby Act standard. Using the established standard of two acres per 1,000 residents required by the *Armona and Stratford Community Plans*, the Community would require 3.0 acres of parkland to serve its current population of 1,499 (DOF 2008). Since the Community has about 1.1 acres of existing parkland, there is a 2.0 acre deficit in parkland in Kettleman City. Development under the 2035 General Plan would generate an increase in population up to 3,217 residents (3.3 persons per household x 975), for a total population of approximately 4,716 residents, and would contribute to this deficiency by adding a need for additional parkland. Using the two acres per 1,000 residents standard, the Community would require a total 9.4 acres of parkland. Both existing and planned park facilities within Kettleman City would provide 2.9 acres of parkland, or 0.6 acres of parkland per 1,000 residents, as shown in Table 4.13-5.

Table 4.13-5. Comparison of Parks to Population in the Kettleman City Community Plan Area

Current Population (DOF 2008)	Current Parkland	Existing Parkland to Population Ratio	Existing + Future Population	Existing + Future Parkland	Future Parkland to Population Ratio
1,499 residents	1.1 acres	0.7 acres / 1,000 residents	4,716 residents	2.9 acres	0.6 acres / 1,000 residents

This ratio does not meet the standard of two acres of parkland per 1,000 residents, and the Community would experience a parkland shortfall of 6.5 acres. However, future development within Kettleman City would be required to pay in-lieu fees. Payment of in-lieu park fees would result in funding equivalent to the provision of public parks in accordance with State Quimby Act standards. Upon compliance with these existing requirements, impacts would be less than significant.

Stratford

The Stratford Community Plan uses a standard of two acres of parkland per 1,000 residents. Using this standard, the Community currently requires 2.5 acres of parkland to serve its current population of 1,264 (DOF 2008). Since the Community does not have any existing parkland, there is a 2.5 acre deficit in parkland in Stratford. Development under the 2035 General Plan through the year 2035 would generate an increase in population up to 1,922 residents (4.33 person per household x 444 residential units), for a total population of approximately 3,186 residents. Using the two acres per 1,000 residents standard, the Community would require a total 6.4 acres of parkland. Planned park facilities within Stratford would provide 4.2 acres of parkland, or 1.5 acres of parkland per 1,000 residents, as shown in Table 4.13-6.

Table 4.13-6. Comparison of Parks to Population in the Stratford Community Plan Area

Current Population (DOF 2008)	Current Parkland	Existing Parkland to Population Ratio	Existing + Future Population	Existing + Future Parkland	Future Parkland to Population Ratio
1,264 residents	0.0 acres	0.0 acres / 1,000 residents	3,186 residents	4.2 acres	1.5 acres / 1,000 residents

This ratio does not meet the standard of two acres of parkland per 1,000 residents, and the Community would experience a parkland shortfall of 4.9 acres. However, future development within Stratford would be required to pay in-lieu fees. Payment of in-lieu park fees would result in funding equivalent to the provision of public parks in accordance with State Quimby Act standards. Upon compliance with these existing requirements, impacts would be less than significant.

General Plan Policies which Reduce Impacts. The *2035 General Plan Open Space Element* includes the following policies and objectives, the implementation of which reduce impacts to parks and recreational facilities.

OS Policy D1.1.2 *Community Plans should facilitate the development and maintenance of community park(s) within Community District areas to expand recreational resources available to residents.*

OS Policy D1.1.3 *Support community involvement that builds capacity for the long term maintenance and upkeep of open space and community park space within Community Districts.*

OS Objective D1.2 *Encourage the development of private recreational facilities compatible with the rural character of Kings County.*

OS Policy D1.2.1 *Support the establishment of new commercial recreational development, provided it is compatible with surrounding land uses and the intensity of such development does not exceed the ability of the natural environment of the site and the surrounding area to accommodate it. Such facilities may include, but are not limited to campgrounds, recreational camps, hotels and destination resorts, ball courts and ball fields, skeet clubs and facilities, hunting and fishing clubs, and equestrian facilities.*

The *2035 Armona Community Plan* includes the following policies, the implementation of which would reduce potential impacts to the parks and recreational facilities within Armona.

ACP Policy 3A.2.1 *Require all new residential development located north of Hanford Armona Road to provide for the establishment of a three and a half acre park planned within the North Community Expansion Area.*

ACP Policy 3A.2.3 *Encourage and facilitate efforts to re-establish the historically significant Armona Depot site as a community facility and dedication park to enhance Community connectivity.*

ACP Policy 3A.2.4 *Require new residential development to establish an ongoing funding mechanism to support the long term maintenance of new neighborhood park and connective pathways along open space corridors.*

ACP Policy 3A.2.5 *The adopted standard for parkland acres per 1,000 individuals within the Armona Community Plan shall be 2 acres of parkland per 1,000 individuals.*

ACP Policy 4A.4.3 *Designate 1.38 acres as public facility that includes the historic site of the Armona Depot for preservation and pursuit of public/private partnership efforts to reconstruct the Armona Depot and establishment of a dedication park to Armona's past.*

The *2035 Home Garden Community Plan* includes the following policies, the implementation of which would reduce potential impacts to the parks and recreational facilities within Home Garden.

HGCP Policy 3A.1.1 *Coordinate with community based non-profit organizations to facilitate the building of a community park near Shaw Place and Houston Avenue.*

HGCP Policy 3A.1.4 *Require new residential development to comply with the Quimby Act and provide fees for park construction and/or provide a long term assessment for ongoing parkland maintenance.*

The *2035 Kettleman City Community Plan* includes the following policies, the implementation of which would reduce potential impacts to the parks and recreational facilities within Kettleman City.

KCCP Policy 3A.1.1 *New Development within Phase Area A shall provide for the establishment of a 100 foot buffer along the northwest edge of Phase Area A-2, A-3, and a .33 acre portion of the 3/4 acre community park located in Phase Area A-3. The 50 foot width along the outside community edge shall be used for a tree lined open space corridor with pedestrian trail and trees spaced 15-25 feet. The interior 50 foot width shall provide a perimeter roadway for residential access and should include aesthetic landscaping.*

KCCP Policy 3A.1.2 *New Development within Phase Area B shall provide for the establishment of a 100 foot buffer along the west, north and portion of the east edge of Phase Area B-2 and a .42 acre portion of the 3/4 acre community park located in Phase Area B-2. The 50 foot width along the outside community edge shall be used for a tree lined open space corridor with pedestrian trail and trees spaced 15-25 feet. The interior 50 foot width shall provide a perimeter roadway for residential access and should include aesthetic landscaping.*

KCCP Policy 3A.1.3 *New Development within Phase Area C shall provide for the establishment of a 100 foot buffer along the north and northeast edge of Phase Area C-2 and a 1 acre community park. The 50 foot width along*

the outside community edge shall be used for a tree lined open space corridor with pedestrian trail and trees spaced 15-25 feet. The interior 50 foot width shall provide a perimeter roadway for residential access and should include aesthetic landscaping.

KCCP Policy 3A.2.6 *Require new residential development to establish an ongoing funding mechanism to support the long term maintenance of existing and new community park and open space areas.*

The *2035 Stratford Community Plan* includes the following policies, the implementation of which would reduce potential impacts to the parks and recreational facilities within Stratford.

SCP Policy 3A.1.1 *Require all new residential development to provide for the establishment of a 4.2 acre park planned north of Laurel Avenue and West of 20th Avenue along the canal.*

SCP Policy 3A.1.2 *Require new residential development to establish an ongoing funding mechanism to support the long term maintenance of the new neighborhood park and connective pathways along open space corridors.*

SCP Policy 3A.1.3 *Adopt a Communitywide standard for new residential development to provide recreational public open space land or in-lieu payment to a Community Park fund.*

SCP Policy 3B.1.4 *Community accessibility along 20 ½ Avenue south of 6th Street should be enhanced to increase safe pedestrian and bicyclist connection to the Empire Pool.*

Mitigation Measures. No significant impacts were identified, so no mitigation measures are required.

Significance after Mitigation. Impacts would be less than significant without mitigation.

Impact REC-2 Through the year 2035, the County would develop six new park areas and recreational facilities. The implementation of these parks and recreation facilities could result in environmental impacts related to traffic, noise, and aesthetics on surrounding uses. From a programmatic perspective relative to the 2035 General Plan, this is considered a Class III, *less than significant*, impact.

The four community plans identify new park and recreation facilities. None of these identified facilities or programs would result in the substantial increase in demand for parks or facilities, create the need for more parks in underserved areas of the community plan areas, or result in the removal of a neighborhood park or open space area.

The construction of parks and recreation facilities within a residential area and/or near schools could potentially result in significant impacts in the areas of traffic, noise, or visual impacts to existing sensitive receptors. In addition, construction in undeveloped areas could result in

impacts to biological resources or unknown buried cultural resources. However, the CEQA environmental review process requires that such potential impacts be addressed prior to construction of new facilities. In addition, policies in the General Plan and Community Plans address locations for the proposed facilities, aesthetic features, and ongoing funding mechanisms to support the long terms maintenance of new neighborhood parks, the implementation of which would further mitigate potential community concerns regarding potential impacts resulting from these new facilities. Project-specific CEQA review of future facilities would be based on General Plan requirements, and may identify future impacts depending on the location and the conditions in place at that future time, for which mitigation may be required if such impacts are found to be significant.

Mitigation Measures. No mitigation measures are required in addition to proposed General Plan and Community Plan policies. See policies listed under Impact REC-1.

Significance After Mitigation. Impacts would be less than significant.

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4.14 TRANSPORTATION and CIRCULATION

The following section includes an analysis of the existing and future traffic operations for the key roadways in Kings County. The analysis herein is based on the Existing Conditions Background Report prepared for Kings County by Omni-Means, Ltd (August, 2008). The Existing Conditions Background Report was used as the foundation for analysis and narrative in the *2035 General Plan Circulation Element*. The section reviews traffic volume forecasts for 2035 assuming buildout of the General Plan, and identifies transportation and circulation improvements that would be necessary to accommodate traffic volumes under buildout conditions. The 2035 traffic volumes were forecasted utilizing the Kings County Association of Governments (KCAG) Regional Travel Demand Forecast Model.

4.14.1 Setting

a. Existing Vehicular Circulation System. Kings County's transportation system is composed of Interstate 5, several State Routes, and numerous County and city streets and roads. Figure 4.14-1 shows Kings County's regional setting and relationship to the State Route system, nearby counties, cities and communities. Figure 4.14-2 identifies the designated street and highway network contained in the existing Circulation Element adopted by the County in 1994. Public transit needs are served by the Kings Area Rural Transit (KART) and the Corcoran Area Transit (CAT). Kings County Area Public Transit Agency (KCAPTA) consists of Kings County and Avenal, Corcoran, Hanford, and Lemoore officials that oversee the operations of the local transit providers. There are also two public use airports and approximately 67 miles of rail lines within the County, including the AMTRAK "San Joaquin" corridor.

State Routes play a major role in Kings County's transportation system. State Route traffic in Kings County is generally composed of farm-to-market, commuter, and business trips. Local roads are utilized extensively for the movement of agricultural products. With increased urban population in the county, an increased percentage of commuter and business trips are occurring. Due to the interrelationship between urban and rural activities (employment, housing, services, etc.) and the low average density/intensity of land uses, the private automobile is the dominant mode of travel for residents in Kings County.

The County's road network includes Interstate 5, State Routes 33, 41, 43, 137, 198 and 269 (which is entirely within the City of Avenal). Other prominent roadways serving the County also include Avenal Cutoff Road, Excelsior Avenue, Flint Avenue, Grangeville Bypass, Grangeville Boulevard, Houston Avenue, Jackson Avenue, Kansas Avenue, Lacey Boulevard, Laurel Avenue, Nevada Avenue, Pueblo Avenue, Utica Avenue, Whitney Avenue, 6th Avenue, 10th Avenue, 10½ Avenue, 12th Avenue, 12 ¾ Avenue, 14th Avenue, 18th Avenue and 22nd Avenue. Additionally, the roadway network includes numerous County-maintained local roads, as well as local streets within each of the four cities and four unincorporated communities.

b. Existing Traffic Conditions.

Level of Service Definitions. Level of Service (LOS) is used to measure the operating conditions of an intersection or a roadway segment by considering factors such as traffic volume and capacity. LOS standards are used by Kings County, KCAG, Caltrans, and local

agencies to quantitatively assess street and state route system performance. LOS is a qualitative measure of traffic operating conditions. LOS A through F are assigned to an intersection or roadway segment, with LOS A indicating very good operations with little congestion and LOS F indicating poor operations with heavy congestion. The LOS threshold volumes for roadway segments are defined in Table 4.14-1.

Table 4.14-1. Level of Service Threshold Volumes

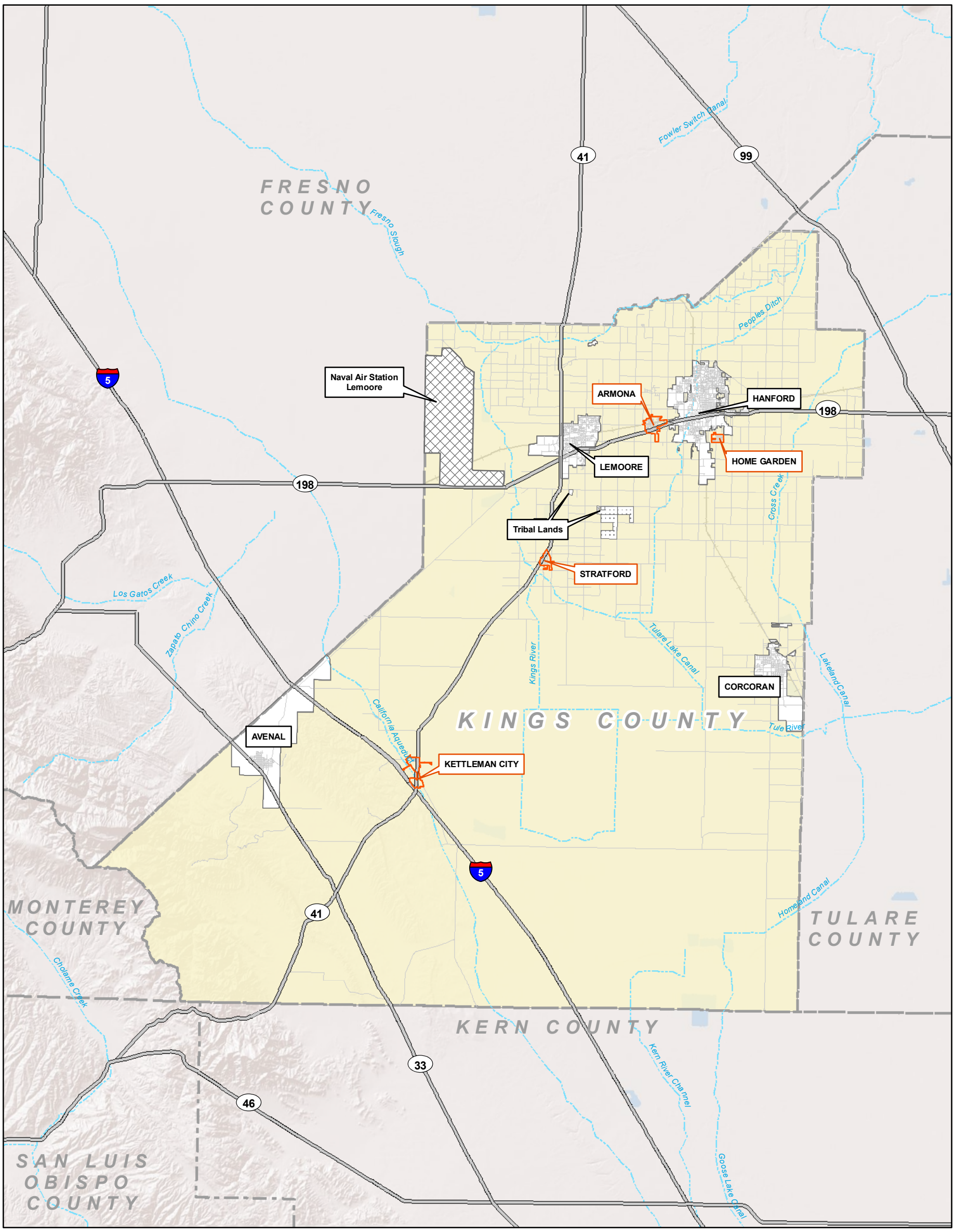
Roadway Type	Total Daily Vehicles in Both Directions				
	LOS A	LOS B	LOS C	LOS D	LOS E
6-Lane Freeway	36,900	61,100	85,300	103,600	115,300
4-Lane Freeway	26,800	39,600	55,200	67,100	74,600
6-Lane Arterial	7,300	44,700	52,100	53,500	----
4-Lane Arterial (turn lanes)	4,800	29,300	34,700	35,700	----
4-Lane Collector	2,400	14,650	17,350	17,850	----
2-Lane Facility	----	4,200	13,800	16,400	16,900

Based upon Florida DOT Tables (2000 Highway Capacity Manual). ADT = Average Daily Traffic.
All volumes are approximate and assume ideal roadway characteristics. Actual threshold volumes for each LOS listed above may vary depending on a number of factors including curvature and grade, intersection or interchange spacing, percentage of trucks and other heavy vehicles, lane widths, signal timing, on-street parking, amount of cross traffic and pedestrians, driveway spacing, etc.

LOS standards vary throughout the County and the four incorporated cities. The LOS threshold identifies that the "minimum" LOS standard within the County shall be no lower than LOS "E" for urban areas and LOS "D" for rural areas. However, each local agency that owns and operates transportation facilities may select a LOS standard more stringent than the minimum LOS standards. The Existing Conditions Background Report prepared for Kings County by Omni-Means used a peak-hour LOS of "D" as the threshold for acceptable traffic operations for the Kings County road network.

Existing Traffic Operations. Figures 4.14-1 and 4.14-2 show key travel corridors in Kings County, including Interstate 5, local State Routes, and key County and city streets and roads. Table 4.14-2 and Figure 4.14-3 show the existing average daily traffic (ADT) and LOS for major roadway segments in Kings County. Traffic volumes used to develop LOS calculations were obtained from Caltrans, KCAG, and various local agencies. Traffic volumes were available from these agencies from 2006-07. In areas where recent traffic counts were not available (within three years), traffic counts were subcontracted to get the available data.

As shown in Table 4.14-2, all of the roadway segments, except for one, are currently operating at acceptable LOS "D" conditions or better under existing conditions. The roadway segment of State Route 198 between 6th Avenue and the Tulare County line is currently operating at LOS "F" conditions. The deficiency is a result of increased traffic due to population growth and limited improvements to the roadway.



Base map source: Map images copyright © 2009 ESRI and its licensors. All rights reserved. Used by permission. U.S. Bureau of the Census TIGER 2000 data and Natural Resource Conservation Service, 2007.

Legend

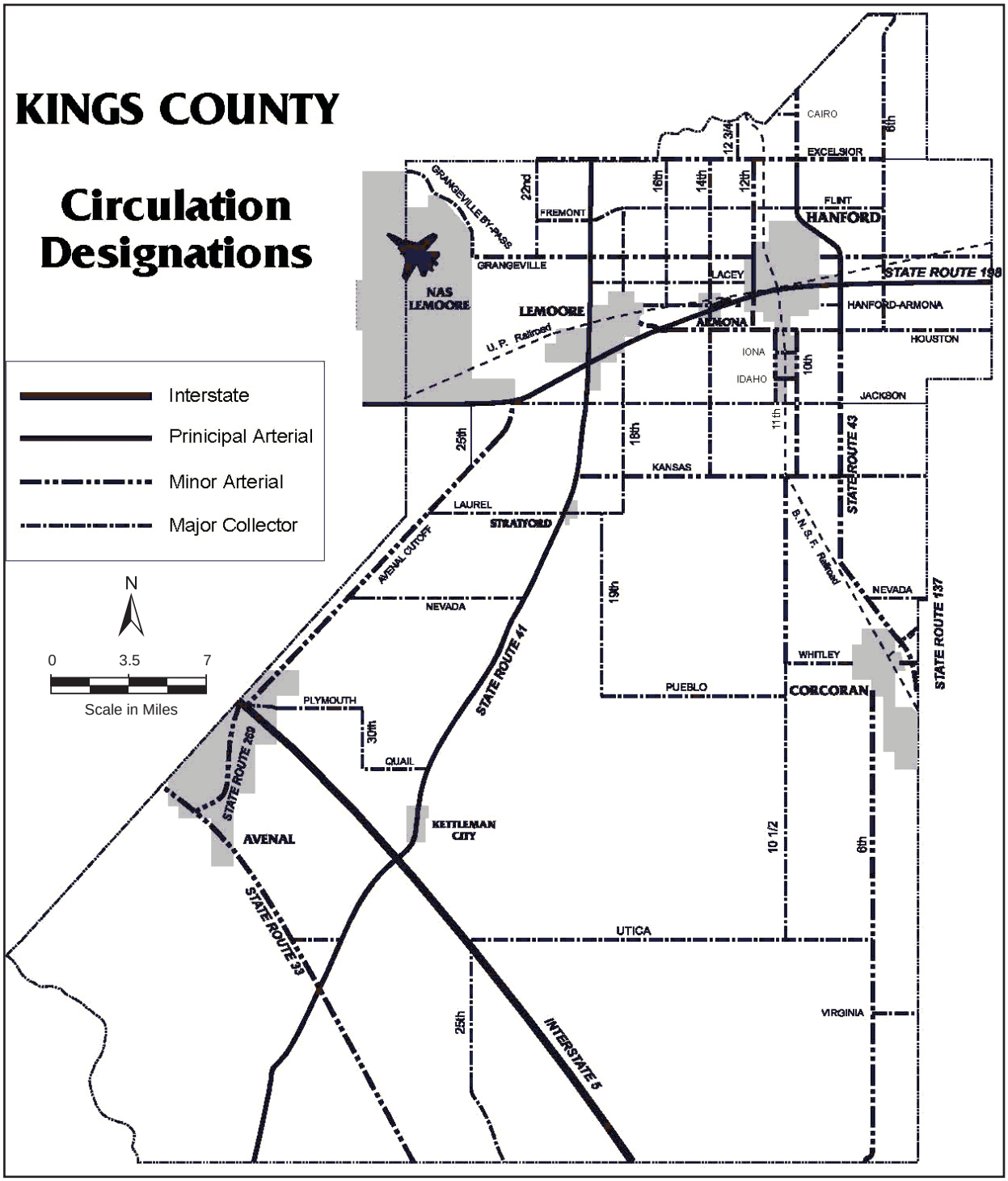
- Community Boundary
- City Boundary (Not part of General Plan)
- Naval Air Station Lemoore Boundary (Not part of General Plan)
- Tribal Lands (Not part of General Plan)

0 5 10 Miles

N

Regional Setting and State Route System

Figure 4.14-1



Circulation Designations

Figure 4.14-2

Source: Kings County, 2007.

County of Kings

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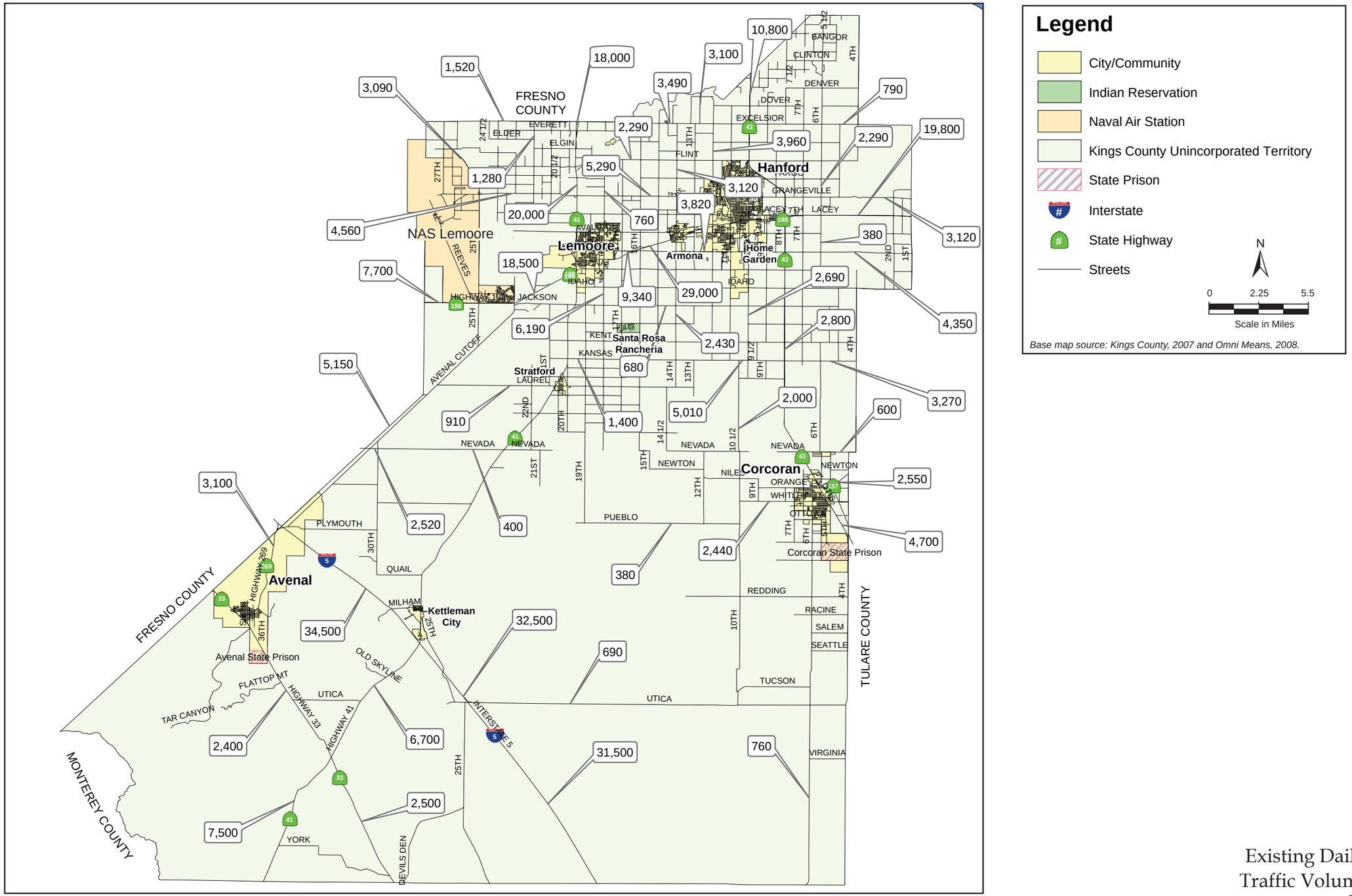


Existing Daily Traffic Volumes

Figure 4.14-3

Table 4.14-2. Annual Average Daily Traffic Volumes and Levels of Service (2006)

Roadway Segment	Limits	No. of Lanes	ADT	LOS
Interstate 5	Kern Co. Line – Utica Avenue	4	31,500	B
Interstate 5	Utica Avenue – State Route 41	4	32,500	B
Interstate 5	State Route 41 – Fresno Co. Line	4	34,500	B
State Route 33	Kern Co. Line – State Route 41	2	2,500	B
State Route 33	State Route 41 – 7th Avenue	2	2,400	B
State Route 33	7th Avenue – State Route 269	2	2,400	B
State Route 33	State Route 269 – Fresno Co. Line	2	2,300	B
State Route 41	Kern Co. Line – State Route 33	2	7,500	C
State Route 41	State Route 33 – Interstate 5	2	6,700	C
State Route 41	Interstate 5 – Bernard Drive	4	9,500	B
State Route 41	Bernard Drive – Quail Avenue	2	7,100	C
State Route 41	Quail Avenue – Nevada Avenue	2	8,300	C
State Route 41	Nevada Avenue – Jackson Avenue	2	8,500	C
State Route 41	Jackson Avenue – State Route 198	2	9,700	C
State Route 41	State Route 198 – Bush Street	4	14,200	B
State Route 41	Bush Street – Houston Avenue	4	18,000	B
State Route 41	Houston Avenue – Hanford –Armona Road	4	18,000	B
State Route 41	Hanford-Armona Road – Grangeville Boulevard	4	20,000	B
State Route 41	Grangeville Boulevard – Fresno Co. Line	4	18,000	B
State Route 43	Tulare Co. Line – Railroad Drive	2	4,700	C
State Route 43	State Route 137 – Corcoran Bypass	2	3,500	B
State Route 43	Corcoran Bypass – Kansas Avenue	2	6,300	C
State Route 43	Kansas Avenue – Houston Avenue	2	5,800	C
State Route 43	Houston Avenue – State Route 198	2	8,700	C
State Route 43	State Route 198 – Lacey Boulevard	2	11,300	C
State Route 43	Lacey Boulevard – Grangeville Boulevard	2	10,300	C
State Route 43	Grangeville Boulevard – 10th Avenue	2	9,800	C
State Route 43	10th Avenue - Excelsior Avenue	2	10,300	C
State Route 43	Excelsior Avenue – Fresno Co. Line	2	10,800	C
State Route 137	State Route 43 – Tulare Co. Line	2	2,550	B
State Route 198	Fresno Co. Line – LNAS	2	7,700	C
State Route 198	LNAS – Avenal Cutoff Road	4	14,700	B
State Route 198	Avenal Cutoff Road – State Route 41	4	18,500	B
State Route 198	State Route 41 – 18th Avenue	4	20,900	B
State Route 198	18th Avenue – Houston Avenue	4	21,800	B
State Route 198	Houston Avenue – 14th Avenue	4	29,000	B
State Route 198	14th Avenue – Hanford-Armona Road	4	32,000	B
State Route 198	Hanford-Armona Road – 12th Avenue	4	28,500	B
State Route 198	12th Avenue – 11th Avenue	4	20,700	B
State Route 198	11th Avenue – 10th Avenue	4	19,500	B
State Route 198	10th Avenue – State Route 43	4	19,800	B
State Route 198	State Route 43 – 6th Avenue	4	18,900	B
State Route 198	**6th Avenue – Tulare Co. Line**	**2**	**19,800**	**F**
State Route 269	State Route 33 – Hydril Road	2	5,000	C
State Route 269	Hydril Road – Interstate 5	2	3,100	B
Avenal Cutoff	State Route 269 – Nevada Avenue	2	3,000	B
Avenal Cutoff	Nevada Avenue – State Route 198	2	5,150	C
Excelsior Avenue	22nd Avenue – State Route 41	2	1,520	B
Excelsior Avenue	State Route 41 – 19th Avenue	2	2,190	B
Excelsior Avenue	19th Avenue – 14th Avenue	2	3,300	B
Excelsior Avenue	14th Avenue – 12 ¾ Avenue	2	3,490	B
Excelsior Avenue	12 ¾ Avenue – 12th Avenue	2	4,550	C
Excelsior Avenue	12th Avenue – State Route 43	2	3,140	B
Excelsior Avenue	State Route 43 – 6th Avenue	2	790	B
Flint Avenue	6th Avenue – State Route 43	2	1,380	B
Flint Avenue	State Route 43 – 11th Avenue	2	2,490	B

Table 4.14-2. Annual Average Daily Traffic Volumes and Levels of Service (2006)

Roadway Segment	Limits	No. of Lanes	ADT	LOS
Flint Avenue	11th Avenue – State Route 41	2	2,290	B
Fremont Avenue	State Route 41 – 22nd Avenue	2	800	B
Grangeville Boulevard	Grangeville Bypass – 22nd Avenue	2	3,120	B
Grangeville Boulevard	22nd Avenue – State Route 41	2	4,560	C
Grangeville Boulevard	State Route 41 – 18th Avenue	2	4,940	C
Grangeville Boulevard	18th Avenue – 12th Avenue	2	5,290	C
Grangeville Boulevard	Hanford City Limits – 6th Avenue	2	3,080	B
Grangeville Boulevard	6th Avenue – Tulare Co. Line	2	3,120	B
Grangeville Bypass	Grangeville Boulevard – Fresno Co. Line	2	3,090	B
Houston Avenue	17th Avenue – 14th Avenue	2	9,340	C
Houston Avenue	14th Avenue – 12th Avenue	2	2,090	B
Houston Avenue	12th Avenue – 10th Avenue	2	3,820	B
Houston Avenue	10th Avenue – State Route 43	2	3,520	B
Houston Avenue	State Route 43 – 2nd Avenue	2	4,350	C
Jackson Avenue	State Route 198 – 18th Avenue	2	1,380	B
Jackson Avenue	18th Avenue – State Route 43	2	680	B
Kansas Avenue	State Route 41 – 18th Avenue	2	1,400	B
Kansas Avenue	18th Avenue – 15th Avenue	2	3,670	B
Kansas Avenue	15th Avenue – 10 ½ Avenue	2	2,170	B
Kansas Avenue	10 ½ Avenue – State Route 43	2	5,010	C
Kansas Avenue	State Route 43 – Tulare Co. Line	2	3,270	B
Lacey Boulevard	13th Avenue – 18th Avenue	2	8,110	C
Lacey Boulevard	18th Avenue – State Route 41	2	1,630	B
Laurel Avenue	18th Avenue – State Route 41	2	740	B
Laurel Avenue	State Route 41 – Avenal Cutoff	2	910	B
Nevada Avenue	Fresno Co. Line – Avenal Cutoff	2	2,520	B
Nevada Avenue	Avenal Cutoff – State Route 41	2	390	B
Nevada Avenue	22nd Avenue – Tulare Co. Line	2	600	B
Pueblo Avenue	19th Avenue – 10th Avenue	2	380	B
Utica Avenue	25th Avenue – 14th Avenue	2	690	B
Utica Avenue	14th Avenue – 12th Avenue	2	550	B
Utica Avenue	12th Avenue – 6th Avenue	2	540	B
Whitley Avenue	6 ½ Avenue – 10th Avenue	2	2,440	B
6th Avenue	Utica Avenue – Kern Co. Line	2	760	B
6th Avenue	Plymouth Avenue – Utica Avenue	2	2,020	B
6th Avenue	Houston Avenue – State Route 198	2	380	B
6th Avenue	State Route 198 – Fargo Avenue	2	2,290	B
6th Avenue	Fargo Avenue – Tulare Co. Line	2	1,920	B
10th Avenue	Kansas Avenue – Idaho Avenue	2	1,200	B
10th Avenue	Idaho Avenue – Houston Avenue	2	2,024	B
10th ½ Avenue	Utica Avenue – Nevada Avenue	2	2,900	B
10th ½ Avenue	Nevada Avenue – Niles	2	2,000	B
12th Avenue	Grangeville Boulevard – Fargo Avenue	2	5,170	C
12th Avenue	Fargo Avenue – Excelsior Avenue	2	3,960	B
12 ¾ Avenue	Excelsior Avenue – Fresno Co. Line	2	3,100	B
14th Avenue	Excelsior Avenue – Flint Avenue	2	1,190	B
14th Avenue	Flint Avenue – Grangeville Boulevard	2	3,120	B
14th Avenue	Grangeville Boulevard – Houston Avenue	2	5,880	C
14th Avenue	Houston Avenue – Kansas Avenue	2	2,430	B
18th Avenue	Flint Avenue – Grangeville Boulevard	2	760	B
18th Avenue	Grangeville Boulevard – Lacey Boulevard	2	2,930	B
18th Avenue	State Route 198 – Jackson Avenue	2	6,190	C
18th Avenue	Jackson Avenue – Laurel Avenue	2	1,690	B
22nd Avenue	Grangeville Boulevard – Excelsior Avenue	2	1,280	B

c. Alternative Transportation Systems. Alternative transportation systems within Kings County include a bikeway system, pedestrian system and public transit system. Each of these systems is discussed below.

Bikeway System. Kings County offers a relatively level topography that allows for the opportunity to utilize bicycle facilities. KCAG adopted the 2005 Kings County Regional Bike Plan to demonstrate a sound planning environment. The current bicycle plan outlines safety concerns, planned improvements, bicycle maps and funding opportunities. The Regional Bicycle Plan identifies various phases of planning and the implementation of bikeway facilities within the urban area boundary. Most transit carriers provide bike racks on buses to enhance the use of transit and bicycling within Kings County. AMTRAK also provides bicycle storage on the train for inter-city travel. The State of California identifies bicycle facilities in three classifications, according to the degree of exclusiveness with which the paths are preserved for bicycle use. These are described below.

Class I Bike Path. Provides a completely separate right of way designated for exclusive use of bicycles and pedestrians with cross-flows by motorists minimized.

Class II Bike Lanes. Provides a restricted right-of-way through signs and pavement striping designated for the exclusive or semi-exclusive use of bicycles with through travel by motor vehicles or pedestrians prohibited, but with vehicle cross-flows by pedestrians and motorists permitted. In California, MUTCD sign #R3-17 normally designates class II facilities

Class III Bike Route. Provides a right-of-way designated by signs and is shared with pedestrians or motorists (no pavement stripes or bicycle lane designation markers). MUTCD sign #D11-1 normally designates a class III facility. Additionally Share the Road signs (MUTCD W11-1 and W16-1) also may be used along these routes.

In addition to the above classifications, the “Kings County Regional Bicycle Plan” recommends the use of a fourth type of bicycle facility.

Class III with Striping. Provides for shared use with pedestrian and motor vehicle traffic (no bicycle lane designation markers). Provides a 6” shoulder stripe but does not include bicycle lane pavement markings. These facilities do include the "Bike Route" signage similar to a Class III facility. A Class III with striping is appropriate when insufficient pavement width is available to provide a standard Class II bike lane facility, but it is desirable to designate a portion of the roadway for bicyclists. This fourth facility meets Caltrans' standards (for a Class III facility) and simply adds a 6” shoulder stripe to the pavement to provide an additional level of comfort for the bicycles because they are riding in a delimited shoulder area.

Bicycle travel may occur by bicyclists sharing the existing roadways with vehicular travel. Prior to 1998 there were no signed bike routes within the unincorporated area of Kings County. The first Class III bike route with striping is located on Grangeville Boulevard between 12th Avenue and the Naval Air Station Lemoore, which extends for 13 miles. A Class III route continues east into Hanford and ends at 9 ¼ Avenue.

A Class III bicycle route has been completed on two adjacent segments of roadways within Kings County: the first segment located on 18th Avenue between Flint Avenue and Grangeville

Boulevard with the second segment on Flint Avenue between 18th Avenue to Hickey Park (17 ½ Avenue). These routes were funded with the Bicycle Transportation Account as well as a 10 percent price match from the County. Both projects were programmed in the Federal Transportation Improvement Program (FTIP) and the Regional Transportation Plan (RTP).

Pedestrian System. The pedestrian facilities in Kings County consist of sidewalks, paths, and over-crossings built for pedestrians. The system also includes neighborhood and park path systems, and dedicated trail facilities that are shared with bicyclists and other users.

Transit System. KART is Kings County's complete Countywide public rural and urban transportation provider. KART is the primary transportation outlet linking Kings County's rural and unincorporated communities to other communities within the region. KART interlinks the County's transportation needs in relation to the rural makeup of the area. CAT (Corcoran Area Transit) provides service to the City of Corcoran and surrounding Kings County fringe areas. Dial-A-Ride (demand response) service is available for those residents of Hanford, Lemoore, Armona and Avenal traveling more than ½ of a mile from an existing fixed bus route or for those riders certified by KART as disabled.

Where service is available, public transportation in Kings County is utilized primarily by a transit-dependent population; the elderly, students, low-income residents and the physically handicapped. In addition, State correctional facility employees and visitors utilize transit services regularly in Kings County. In addition to the normal transit operations, the Santa Rosa Rancheria regularly provides transit service to the cities of Bakersfield, Fresno, Los Baños, Merced, Hanford and Visalia.

e. Regulatory Setting. The Kings KCAG serves as the state-designated Regional Transportation Planning Agency (RTPA) and the federally-designated Metropolitan Planning Organization (MPO). As mandated by Chapter 2.5, Section 65080 et. seq. of the California Government Code, each urbanized area Regional Transportation Planning Agency (RTPA) must prepare a RTP by September 1, every three years. The KCAG is a state-designated RTPA and a federally designated Metropolitan Planning Organization (MPO). KCAG has developed the 2007 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, KCAPTA, Tachi-Yokut Tribe, and citizen groups. The RTP contains a constrained list of transportation projects (that are federally funded), air quality determination and set policies for spending federal and state funds. The RTP, with a 2035 planning horizon, is the key that unlocks federal and state funding for transportation projects. 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 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.

4.14.2 Impact Analysis

a. Methodology and Significance Thresholds. The following reviews the traffic analysis scenarios and key elements of the traffic methodology and thresholds used in the EIR analysis.

Existing Traffic Volumes. Existing conditions were obtained for the Kings County roadway system from Caltrans, KCAG, and various local agencies. Traffic volumes were available from these agencies from 2006-07. In areas where recent traffic counts were not available (within three years), traffic counts were subcontracted to get the available data. The traffic data analyses include ADT volumes for study area roadways.

Roadway ADT volumes represent the level of traffic that travels on a specific roadway segment over an average 24-hour period. As described in Section 4.14-1(b) and depicted in Table 4.14-2 and Figure 4.14-3, all of the roadway segments, except for one, are currently operating at acceptable LOS "D" conditions or better under existing conditions. The roadway segment of State Route 198 between 6th Avenue and the Tulare County line is currently operating at LOS "F" conditions. The deficiency is a result of increased traffic due to population growth and with limited improvements to the roadway.

Year 2035 Traffic Volumes. Year 2035 traffic volume forecasts were developed assuming buildout of the draft 2035 General Plan. The KCAG Regional Travel Demand Forecast Model was used to estimate the traffic generation for buildout under the draft 2035 General Plan. Maximum buildout traffic volumes are presented on Figure 4.14-4. The projected increases are the result of increased traffic, population growth and expected developments. Improvements, including widening road segments, planned intersection modifications, will aid in the reduction of congestion. All these deficiencies were identified in the RTP. Mitigation measures, such as widening roadways, are anticipated to occur through 2035.

Level of Service Standards. LOS standards vary throughout the County and the four incorporated cities. The LOS threshold identifies that the "minimum" LOS standard within the County shall be no lower than LOS "E" for urban areas and LOS "D" for rural areas. However, each local agency that owns and operates transportation facilities may select a LOS standard more stringent than the minimum LOS standards. The Existing Conditions Background Report prepared for Kings County by Omni-Means used a peak-hour LOS of "D" as the threshold for acceptable traffic operations for the Kings County road network. In order to maintain consistency throughout the County as well as with existing analysis pursuant to the 2035 General Plan, this transportation and circulation analysis uses this same threshold.

Significance Thresholds. Impacts relating to transportation and circulation would be considered potentially significant if development allowed under the 2035 General Plan would:

- *Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections);*
- *Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or state routes;*
- *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;*
- *Substantially increase traffic-related hazards due to a design feature or incompatible uses;*
- *Result in inadequate emergency access;*
- *Result in inadequate parking capacity; or*
- *Conflict with adopted policies, plans or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).*

Air traffic-related hazards are analyzed in Section 4.7, *Hazards and Hazardous Materials.*

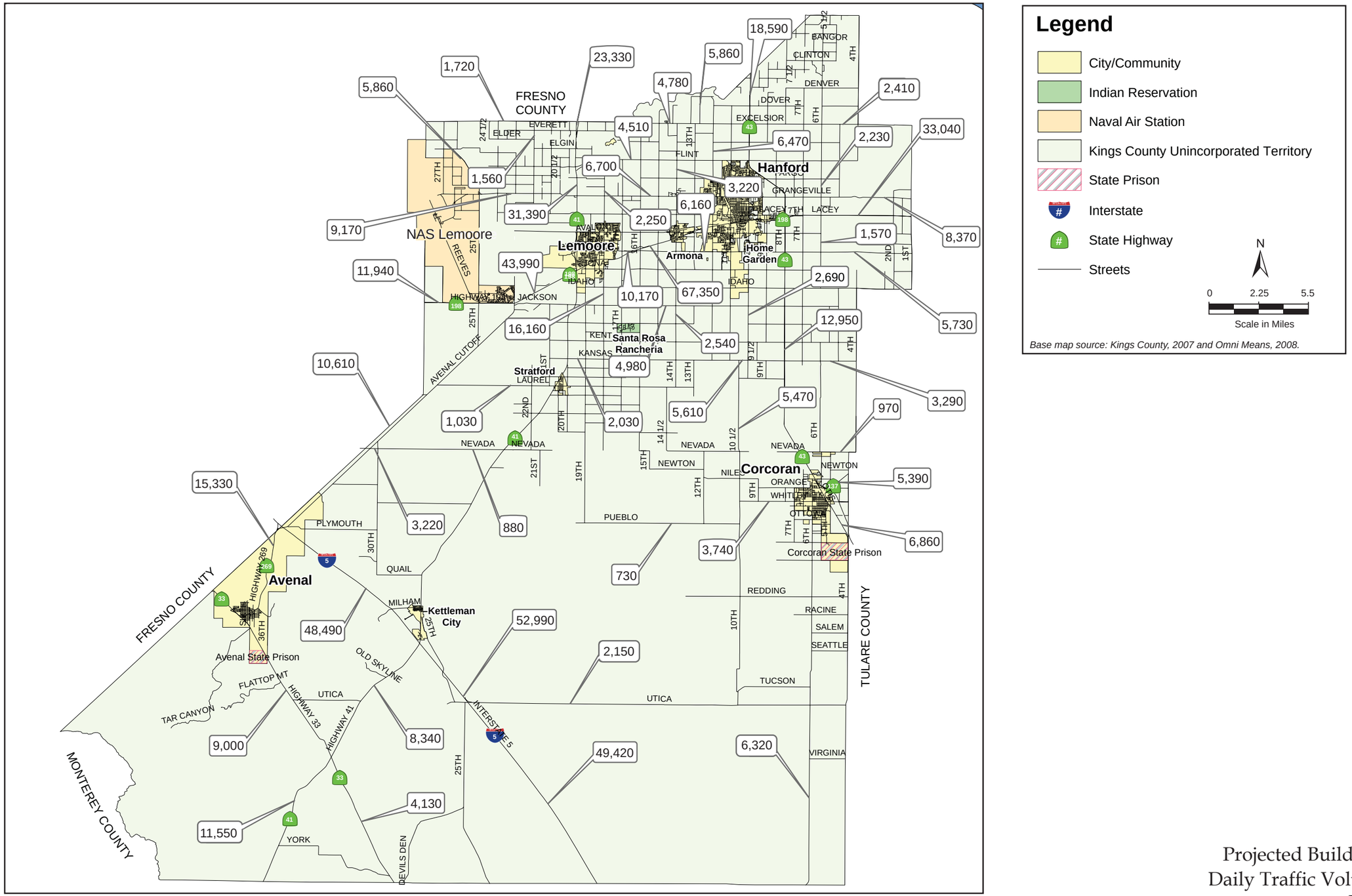
b. Project and Cumulative Impacts.

Impact TC-1 Development facilitated by the 2035 General Plan would result in deficiencies to the local circulation system based on a threshold of LOS "D." Roadway improvements planned in the proposed 2035 General Plan, as well as the 2007 RTP are intended to address all projected deficiencies for roadway segments within the County. However, funding constraints may delay needed improvements, and some roadway segments may exceed the LOS "D" threshold until funding becomes available to make needed improvements. Therefore, impacts are Class II, *significant but mitigable*.

Development facilitated by the proposed 2035 General Plan would increase traffic on the Kings County roadway system. Impacts to roadway capacities resulting from estimated buildout under the draft 2035 General Plan are discussed below. It should be noted that buildout includes development of vacant land within existing land use designations, as well as redevelopment of parcels within areas with land use designations that would be updated under the 2035 General Plan update.

Year 2035 Roadway Operations. Table 4.14-3 presents the Year 2035 roadway average ADT and LOS for the key roadway segments in Kings County (depicted in Figures 4.14-1 and 4.14-2), including Interstate 5, local State Routes, and key County and city streets and roads. Based on the 2035 traffic model, six roadway segments are forecasted to exceed acceptable LOS "D" conditions in the future. The deficient roadway segments are listed below:

- State Route 41 from Jackson Avenue to State Route 198;
- State Route 43 from Corcoran Bypass to Kansas Avenue;
- State Route 43 from 10th Avenue to Excelsior Avenue;
- State Route 43 from Excelsior Avenue to Fresno Co. Line;
- State Route 198 from Houston Avenue to 14th Avenue; and
- State Route 198 from 14th Avenue to Hanford-Armona Road.



Projected Buildout
Daily Traffic Volumes
Figure 4.14-4

Table 4.14-3. Annual Average Daily Traffic Volumes and Levels of Service (2035)

Roadway Segment	Limits	No. of Lanes	AADT	LOS
Interstate 5	Kern Co. Line – Utica Avenue	4	49,420	C
Interstate 5	Utica Avenue – State Route 41	4	52,990	C
Interstate 5	State Route 41 – Fresno Co. Line	4	48,490	C
State Route 33	Kern Co. Line – State Route 41	2	4,130	B
State Route 33	State Route 41 – 7th Avenue	2	9,000	C
State Route 33	7th Avenue – State Route 269	2	8,580	C
State Route 33	State Route 269 – Fresno Co. Line	2	4,980	C
State Route 41	Kern Co. Line – State Route 33	2	11,550	C
State Route 41	State Route 33 – Interstate 5	2	8,340	C
State Route 41	Interstate 5 – Bernard Drive	2	13,940	D
State Route 41	Bernard Drive – Quail Avenue	2	13,260	C
State Route 41	Quail Avenue – Nevada Avenue	2	10,840	C
State Route 41	Nevada Avenue – Jackson Avenue	2	13,370	C
State Route 41	**Jackson Avenue – State Route 198**	**2**	**19,340**	**F**
State Route 41	State Route 198 – Bush Street	4	43,840	C
State Route 41	Bush Street – Houston Avenue	4	29,910	C
State Route 41	Houston Avenue – Hanford –Armona Road	4	29,910	C
State Route 41	Hanford-Armona Road – Grangeville Boulevard	4	31,390	C
State Route 41	Grangeville Boulevard – Fresno Co. Line	4	23,330	B
State Route 43	Tulare Co. Line – Railroad Drive	2	6,860	C
State Route 43	State Route 137 – Corcoran Bypass	2	9,730	C
State Route 43	**Corcoran Bypass – Kansas Avenue**	**2**	**18,190**	**F**
State Route 43	Kansas Avenue – Houston Avenue	2	12,950	C
State Route 43	Houston Avenue – State Route 198	2	13,070	C
State Route 43	State Route 198 – Lacey Boulevard	2	14,230	D
State Route 43	Lacey Boulevard – Grangeville Boulevard	2	13,840	D
State Route 43	Grangeville Boulevard – 10th Avenue	2	11,720	C
State Route 43	**10th Avenue - Excelsior Avenue**	**2**	**17,040**	**F**
State Route 43	**Excelsior Avenue – Fresno Co. Line**	**2**	**18,590**	**F**
State Route 137	State Route 43 – Tulare Co. Line	2	5,390	C
State Route 198	Fresno Co. Line – LNAS	4	11,940	A
State Route 198	LNAS – Avenal Cutoff Road	4	31,890	B
State Route 198	Avenal Cutoff Road – State Route 41	4	43,990	C
State Route 198	State Route 41 – 18th Avenue	6	54,820	C
State Route 198	18th Avenue – Houston Avenue	4	58,280	D
State Route 198	**Houston Avenue – 14th Avenue**	**4**	**67,350**	**E**
State Route 198	**14th Avenue – Hanford-Armona Road**	**4**	**67,710**	**E**
State Route 198	Hanford-Armona Road – 12th Avenue	4	60,250	D
State Route 198	12th Avenue – 11th Avenue	4	59,780	D
State Route 198	11th Avenue – 10th Avenue	4	39,650	C
State Route 198	10th Avenue – State Route 43	4	33,040	B
State Route 198	State Route 43 – 6th Avenue	4	35,110	B
State Route 198	6th Avenue – Tulare Co. Line	4	33,910	B
State Route 269	State Route 33 – Hydril Road	2	11,380	C
State Route 269	Hydril Road – Interstate 5	4	15,330	B
Avenal Cutoff	State Route 269 – Nevada Avenue	2	10,770	C
Avenal Cutoff	Nevada Avenue – State Route 198	2	10,610	C
Excelsior Avenue	22nd Avenue – State Route 41	2	1,720	B
Excelsior Avenue	State Route 41 – 19th Avenue	2	2,990	B
Excelsior Avenue	19th Avenue – 14th Avenue	2	3,770	B
Excelsior Avenue	14th Avenue – 12 ¾ Avenue	2	4,780	C
Excelsior Avenue	12 ¾ Avenue – 12th Avenue	2	5,470	C
Excelsior Avenue	12th Avenue – State Route 43	2	7,410	C
Excelsior Avenue	State Route 43 – 6th Avenue	2	2,410	B
Flint Avenue	6th Avenue – State Route 43	2	1,430	B
Flint Avenue	State Route 43 – 11th Avenue	4	6,020	B

Table 4.14-3. Annual Average Daily Traffic Volumes and Levels of Service (2035)

Roadway Segment	Limits	No. of Lanes	AADT	LOS
Flint Avenue	11th Avenue – State Route 41	2	4,510	C
Fremont Avenue	State Route 41 – 22nd Avenue	2	2,590	B
Grangeville Boulevard	Grangeville Bypass – 22nd Avenue	2	12,010	C
Grangeville Boulevard	22nd Avenue – State Route 41	2	9,170	C
Grangeville Boulevard	State Route 41 – 18th Avenue	2	7,440	C
Grangeville Boulevard	18th Avenue – 12th Avenue	2	6,700	C
Grangeville Boulevard	Hanford City Limits – 6th Avenue	4	13,180	B
Grangeville Boulevard	6th Avenue – Tulare Co. Line	2	8,370	C
Grangeville Bypass	Grangeville Boulevard – Fresno Co. Line	2	5,860	C
Houston Avenue	17th Avenue – 14th Avenue	2	10,170	C
Houston Avenue	14th Avenue – 12th Avenue	2	4,980	C
Houston Avenue	12th Avenue – 10th Avenue	2	6,160	C
Houston Avenue	10th Avenue – State Route 43	2	4,400	C
Houston Avenue	State Route 43 – 2nd Avenue	2	5,730	C
Jackson Avenue	State Route 198 – 18th Avenue	2	9,110	C
Jackson Avenue	18th Avenue – State Route 43	2	4,980	C
Kansas Avenue	State Route 41 – 18th Avenue	2	2,030	B
Kansas Avenue	18th Avenue – 15th Avenue	2	4,740	C
Kansas Avenue	15th Avenue – 10 ½ Avenue	2	7,130	C
Kansas Avenue	10 ½ Avenue – State Route 43	2	5,610	C
Kansas Avenue	State Route 43 – Tulare Co. Line	2	3,290	B
Lacey Boulevard	13th Avenue – 18th Avenue	2	10,750	C
Lacey Boulevard	18th Avenue – State Route 41	2	3,150	B
Laurel Avenue	18th Avenue – State Route 41	2	1,690	B
Laurel Avenue	State Route 41 – Avenal Cutoff	2	1,030	B
Nevada Avenue	Fresno Co. Line – Avenal Cutoff	2	3,220	B
Nevada Avenue	Avenal Cutoff – State Route 41	2	880	B
Nevada Avenue	22nd Avenue – Tulare Co. Line	2	970	B
Pueblo Avenue	19th Avenue – 10th Avenue	2	730	B
Utica Avenue	25th Avenue – 14th Avenue	2	2,150	B
Utica Avenue	14th Avenue – 12th Avenue	2	1,860	B
Utica Avenue	12th Avenue – 6th Avenue	2	2,490	B
Whitley Avenue	6 ½ Avenue – 10th Avenue	2	3,740	B
6th Avenue	Utica Avenue – Kern Co. Line	2	6,320	C
6th Avenue	Plymouth Avenue – Utica Avenue	2	4,410	C
6th Avenue	Houston Avenue – State Route 198	2	1,570	B
6th Avenue	State Route 198 – Fargo Avenue	2	2,230	B
6th Avenue	Fargo Avenue – Tulare Co. Line	2	440	B
10th Avenue	Kansas Avenue – Idaho Avenue	2	1,700	B
10th Avenue	Idaho Avenue – Houston Avenue	2	2,690	B
10th ½ Avenue	Utica Avenue – Nevada Avenue	2	4,250	C
10th ½ Avenue	Nevada Avenue – Niles	2	5,470	C
12th Avenue	Grangeville Boulevard – Fargo Avenue	4	18,740	B
12th Avenue	Fargo Avenue – Excelsior Avenue	2	6,470	C
12 ¾ Avenue	Excelsior Avenue – Fresno Co. Line	2	5,860	C
14th Avenue	Excelsior Avenue – Flint Avenue	2	1,620	B
14th Avenue	Flint Avenue – Grangeville Boulevard	2	3,220	B
14th Avenue	Grangeville Boulevard – Houston Avenue	2	3,790	B
14th Avenue	Houston Avenue – Kansas Avenue	2	2,540	B
18th Avenue	Flint Avenue – Grangeville Boulevard	2	2,250	B
18th Avenue	Grangeville Boulevard – Lacey Boulevard	2	3,940	B
18th Avenue	State Route 198 – Jackson Avenue	4	16,160	B
18th Avenue	Jackson Avenue – Laurel Avenue	2	2,650	B
22nd Avenue	Grangeville Boulevard – Excelsior Avenue	2	1,560	B

The deficiencies are a result of increased traffic, population growth and expected developments. Improvements, including widening road segments, planned intersection modifications, will aid in the reduction of congestion. All these deficiencies were identified in the RTP. Planned improvements, such as widening roadways, are anticipated to occur through 2035.

The roadway segment of State Route 198 between 6th Avenue and the Tulare County line was shown to be currently operating at LOS "F" conditions in Section 4.14.1(b), *Existing Traffic Conditions*. The existing deficiency is a result of increased traffic due to population growth and with limited improvements to the roadway. Improvements, including widening this segment from two to four lanes, are planned for this corridor within the next five years, and the LOS forecast for 2035 shown in Table 4.14-3 reflects these improvements.

General Plan Policies which Reduce Impacts. The 2035 General Plan includes a range of policies and actions intended to reduce overall traffic volume and enhance traffic flow throughout the County. These include:

C Policy A1.1.6 *Work closely with Caltrans, Kings County Association of Governments, and the City of Hanford to develop an alternative design for the 13th Avenue and State Route 198 interchange to enhance traffic safety and accommodate future growth demands.*

C Policy A1.2.1 *Coordinate land use planning with planned transportation facilities to make efficient use of the transportation system and reduce total vehicle miles traveled, vehicle emissions, and energy use through improved accessibility to schools, job centers, and commercial services.*

C Policy A1.2.3 *Establish transportation related development impact fees in coordination with the City of Hanford to create a funding mechanism for construction of the alternative 13th Avenue/State Route 198 interchange design.*

C Policy A1.3.1 *Maintain and manage County roadway systems to maintain a minimum Level of Service Standard "D" or better on all major roadways and arterial intersections.*

C Policy A1.3.2 *Require proposed developments that have the potential to generate 100 peak hour trips or more to conduct a traffic impact study that follows the most recent methodology outlined in Caltrans Guide to the Preparation of Traffic Impact Studies.*

C Policy A1.3.3 *Implement traffic operational improvements such as road widening, signals, and lanes to maximize service and efficiency.*

C Policy B1.3.1 *New development shall make circulation system improvements or pay its fair share to ensure maintenance of acceptable levels of service.*

In addition, the *Armona and Kettleman City Community Plans* contain the following policies, the implementation of which are intended to address traffic-related issues:

ACP Policy 6A.4.1 *The County shall work closely with Caltrans, KCAG and the City of Hanford to develop an alternative design for the highway interchange at 13th Avenue and State Route 198 to enhance traffic safety and accommodate future growth demands.*

ACP Policy 6A.4.3 *A transportation related development impact fee shall be established in coordination with the City of Hanford to create a funding mechanism for construction of the alternative 13th Avenue/State Route 198 interchange design.*

KCCP Policy 6A.1.2 *Establish a grid street pattern for new growth areas to enhance traffic flow through the entire community and channel traffic to key intersections along Highway 41.*

KCCP Policy 6D.1.2 *Work with Caltrans to improve State Highway 41 connections to local streets, through improvements to through streets, traffic signs, and other community safety features.*

The two roadway segments along State Route 198 between Houston Avenue and Hanford-Armona Road exceed the LOS "D" threshold of 67,100 ADT by 250 and 610 ADT respectively. Improvements to the 13th Avenue and State Route 198 interchange called for in the proposed General Plan and Community Plan policies (C Policy A1.1.6, C Policy A1.2.3, ACP Policy 6A.4.1, and ACP Policy 6A.4.3) are intended to accommodate future growth demands (Omni-Means Technical Memorandum Re: Kings County Circulation Update – 13th Avenue Interchange, and are therefore expected to reduce traffic impacts along these roadway segments such that they would operate below the LOS "D" threshold.

The remaining four County roadway segments projected to be deficient – three along SR 43, and one along SR 41 – are identified in the 2007 RTP for widening to either four-lane freeway or two or four-lane expressway status to close service gaps. This would increase the LOS "D" threshold volume on these roads from 16,400 ADT to 67,100 ADT. As four-lane facilities, all four of these roadway segments would operate above the LOS "D" threshold. However, funding constraints are expected to delay the construction of the roadway widening projects until after 2030, which may lead to these roadway segments operating at a deficient LOS.

Because four of the examined roadway segments may not meet the LOS "D" threshold for roadway operations, impacts would be potentially significant. Recommended mitigation measures to address these impacts are discussed below.

Mitigation Measures. Implementation of the following mitigation measures would reduce impacts to a less than significant level.

TC-1(a) **Roadway Improvement Funding.** Kings County shall coordinate with the cities of Hanford, Lemoore, and Corcoran, as well as KCAG and Caltrans, to secure funding for the widening projects called for in the 2007 RTP. Specifically, Kings County should request KCAG set aside STIP funding for construction of the necessary roadway widening projects.

TC-1(b) **Impact Fees.** Kings County shall implement a regional traffic mitigation fee program to mitigate impacts to the County's regional road network. Additionally, the County shall coordinate with incorporated cities to implement local traffic improvement fee programs to offset the capital improvement costs required to accommodate new development.

Significance After Mitigation. Impacts at the two roadways segments along SR 198 – between Houston Avenue and 14th Avenue and 14th Avenue and Hanford-Armona Road – would be less than significant without mitigation with the implementation of policies in the proposed General Plan and *Armona Community Plan*. Impacts at the remaining four roadway segments projected to be deficient – SR 41 from Jackson Avenue to SR 198, SR 43 from Corcoran Bypass to Kansas Avenue, SR 43 from 10th Avenue to Excelsior Avenue, and SR 43 from Excelsior Avenue to the Fresno County Line – would be reduced to a less than significant level with the implementation of Mitigation Measures TC-1(a) and TC-1(b).

Impact TC-2 **Buildout of the 2035 General Plan would incrementally increase traffic volumes at intersections associated with the interchange at State Route 198 and 13th Avenue. However, implementation of planned improvements and draft General Plan policies would reduce impacts to a Class III, *less than significant*, level.**

Buildout of the General Plan would contribute to future congestion at intersections associated with the interchange at SR 198 and 13th Avenue. Existing traffic conditions at the SR 198 and 13th Avenue interchange operate at acceptable LOS "C" or better under the AM and PM peak hour scenario. However, in 2035 it is projected that the interchange and associated intersections will fail to operate at acceptable traffic operation thresholds established by the *Kings County Circulation Element*. Omni-Means developed a Technical Memorandum (Kings County Circulation Update – 13th Avenue Interchange, for Kings County to present the results of traffic analysis for the use in determining the future traffic volumes, potential alignment alternatives, and expected investment needed for an improved interchange at State Route 198 and 13th Avenue.

Improvements to the 13th Avenue and State Route 198 interchange are called for in the draft General Plan and *Armona Community Plan* policies. These improvements, which call for a diamond interchange for the westbound movements and a partial cloverleaf interchange for the eastbound movements, are intended to accommodate future growth demands. In the Technical Memorandum, Omni-Means determined that the proposed interchange modifications would result in acceptable traffic operating conditions. Related draft General Plan and *Armona Community Plan* policies are listed under Impact TC-1, and include C Policy A1.1.6, C Policy A1.2.3, ACP Policy 6A.4.1, and ACP Policy 6A.4.3.

Impacts to the 13th Avenue and State Route 198 interchange and associated intersections would be less than significant with the implementation of planned improvements and draft General Plan policies which require cooperation with CalTrans, KCAG, and the City of Hanford to fund, design, and build an alternative highway interchange at 13th Avenue and State Route 198.

Mitigation Measures. None required.

Significance After Mitigation. Impacts would be less than significant without mitigation.

Impact TC-3 **The 2035 General Plan would not accommodate design features that would create significant traffic hazards. While the potential development of new residential development along highly traveled thoroughfares may incrementally increase hazards for pedestrians, implementation of proposed policies relating to traffic calming and improving walkability would reduce such impacts to a Class III, *less than significant*, level.**

The proposed General Plan Update would accommodate new residential development and mixed-use along relatively highly traveled corridors, including 10th Avenue, 14th Avenue, and State Route 41. The development of residences along main travel corridors is expected to generally increase pedestrian activity in these areas, with the potential for increased hazards for pedestrians. However, the 2035 General Plan includes a range of policies and actions specifically intended to increase traffic calming and enhance the walkability throughout the County. These include:

C Policy A1.1.4 *Consider public safety, retention, and maintenance of the existing County transportation system, and system efficiency as guiding criteria in evaluating County transportation improvement project priorities.*

C Policy A1.1.6 *Work closely with Caltrans, Kings County Association of Governments, and the City of Hanford to develop an alternative design for the 13th Avenue and State Route 198 interchange to enhance traffic safety and accommodate future growth demands.*

C Policy A1.2.4 *Evaluate the Grangeville Boulevard and State Route 41 interchange to determine future roadway plan needs and allow for earliest preservation of right-of-way.*

C Policy B1.2.1 *Adopt traffic calming street design standards into the County's "Improvement Standards" to make available "Pedestrian Friendly" street design alternatives along Community District streets.*

C Policy B1.2.2 *Seek "Safe Routes to School" funding to implement traffic calming features at key intersections that Elementary School children use during the school year to reduce traffic speeds and increase safety.*

C Policy B1.2.3 *Integrate pedestrian infrastructure that includes sidewalks, tree lined streets, and traffic calming crossings to balance both car and people use of neighborhood streets in new mixed use development.*

C Policy C1.1.2 *Work with Caltrans to obtain right-of-way dedications at designated interchanges needing improvements on the State Route system.*

In addition, the Armona, Home Garden, Kettleman City, and Stratford Community Plans each contain policies recommending "Safe Routes to School" funding to go toward traffic calming features for local students (ACP Policy 6A.2.2, HGCP Policy 6A.2.2, KCCP Policy 6A.2.2, and SCP Policy 6A.2.2), as well as integration of traffic calming street designs into the construction of new community streets in order to enhance pedestrian walkability and manage traffic circulation (ACP Policy 6A.2.3, HGCP Policy 6A.2.3, KCCP Policy 6A.2.3, and SCP Policy 6A.2.3).

Kings County has also identified a railroad right-of-way, the San Joaquin Valley Railroad, as a viable option for pedestrian and bicycle use. The shared use and development of the Union Pacific railroad, between the Fresno and Tulare County lines, would provide a signed, recreational route that is intended for pedestrians, bicyclists and equestrian uses. These facilities give people the incentive to walk to places of interest while enjoying a preserved route. Ultimately the shared-use railroad right-of-way would provide access along one of the County's busiest east-west corridors, Hanford-Armona Road. Along the route, the trail will connect Downtown Hanford, Hanford Mall, Adventure Park, Armona, Lemoore multi-modal center, Lemoore skate-park and West Hills College.

Implementation of proposed policies is expected to generally improve overall safety conditions for pedestrians throughout the County. Implementation of General Plan policies on any future development in any of the potential mixed-use areas would also minimize traffic-related hazards associated with the development of those areas. Therefore, impacts related to traffic safety as a result of development under the draft 2035 General Plan are less than significant.

Mitigation Measures. None required.

Significance After Mitigation. Impacts would be less than significant without mitigation.

Impact TC-4 **Buildout of the General Plan would incrementally increase use of available public transit resources. However, implementation of policies within the 2035 General Plan would also be expected to enhance the use of alternative transportation modes, including transit, bicycling, and walking. Overall, impacts relating to the need to provide alternative transportation are considered Class III, *less than significant*.**

It is estimated that the 2035 General Plan would accommodate a 10.5 percent increase in residential development, an eight percent increase in commercial development and a one percent increase in industrial development, as compared to the development accommodated by the 1993 General Plan. These increases in buildout development would incrementally increase demand for public transit services within Kings County. However, the 2035 General Plan includes a range of policies aimed at enhancement of alternative transportation opportunities throughout the County. These include:

C Policy B1.2.3 *Integrate pedestrian infrastructure that includes sidewalks, tree lined streets, and traffic calming crossings to balance both car and people use of neighborhood streets in new mixed use development.*

C Policy C1.2.2	*Preserve the east/west railroad corridor of the San Joaquin Valley Railroad for possible future use in alternative transportation options.*
C Policy C1.2.4	*Coordinate with the California High Speed Rail Authority and Caltrans if a high speed rail corridor is to be established within the County, and plan for the establishment of transportation linkages to the nearest High Speed Rail Station.*
C Policy C1.3.1	*Coordinate with Caltrans, Kings Area Rural Transit, and Corcoran Area Transit to plan for convenient publicly accessible public transit stops and park and ride sites.*
C Policy C1.3.2	*Centralize new development near public transit stops within Community Districts as identified in each respective Community Plan.*
C Policy C1.3.3	*Encourage and support the enhancement and marketing of transit and vanpool services as a viable transportation alternative and transportation control measure to improve air quality.*
C Policy C1.3.4	*Coordinate transit route and stops with other transportation modes as defined in each Community Plan.*
C Policy C1.4.1	*Identify and plan for pedestrian and bicycle pathways in strategic locations within Community Districts to connect residents to commercial businesses, community gathering places, and educational facilities.*
C Policy C1.4.2	*Coordinate Community District bicycle and trail system planning with adjacent City non-motorized trail systems that will enhance the interconnectedness of residents to retail services and educational facilities.*
C Policy C1.4.3	*Integrate the Community Plan established bikeway routes into the Kings County Association of Government's Regional Bicycle Plan.*

In addition, the *Armona, Home Garden, Kettleman City, and Stratford Community Plans* each contain policies requiring bicycle parking for new mixed-use and/or commercial development (ACP Policy 6B.1.3, HGCP Policy 6B.1.3, KCCP Policy 6B.1.3, and SCP Policy 6B.1.3), and integrate pedestrian and bicycle pathways, and other alternative transportation modes (ACP Policy 6A.5.2, ACP Policy 6C.1.2, HGCP Policy 6C.1.2, SCP Policy 6A.1.2, and SCP Policy 6C.1.2).

The proposed 2035 General Plan and the four community plans also include a new mixed use designation, which allows for a mixture of land uses to be incorporated on a single parcel or in business districts. The primary focus of each community plan is to integrate smart growth principles into community revitalization efforts that aim to create or strengthen a centralized community core. The "mixed use" land use designations are integrated along with prioritization of centralized services and pedestrian connectivity in each community core. Mixed-use areas are generally supportive of alternative transportation because residences, employment centers, and services are generally closer together. Research indicates that in compact neighborhoods, where destinations are nearer to one another, people are more willing

to walk, bicycle and ride transit. According to one study, every time a neighborhood doubles in compactness, the number of vehicle trips residents make is reduced by 20 percent to 30 percent (Holtzclaw, 1991).

Implementation of the policies included in the 2035 General Plan is expected to improve the availability of sidewalks, bike paths, and transit over time. By making these transportation alternatives more attractive, General Plan implementation is expected to foster a gradual increase of alternative transportation use. Due to improvements to public transit included in the 2035 General Plan, impacts related to increasing use of public transit facilities would be less than significant.

Mitigation Measures. None required.

Significance After Mitigation. Impacts would be less than significant without mitigation.

Impact TC-5 **Buildout of the 2035 General Plan and Community Plans would allow additional commercial, retail, and mixed-use development within Kings County, which would increase demand for parking in the downtown areas or local communities. However, policies within the 2035 General Plan and Community Plans would require parking plans and Zoning Ordinance amendments to accommodate the increased parking demand. Overall, impacts relating to parking are considered Class III, *less than significant*.**

The downtown areas within each of the community planning areas have limited parking. When new commercial, retail, and mixed-use development occurs within the downtown areas, greater office and retail development would increase demand for parking. As development occurs, existing parking standards may require large parking areas that are not compatible with the use of downtown properties for mixed-use development. The 2035 General Plan includes policies intended to provide an adequate parking supply to accommodate future development. These include:

C Policy B1.1.1 *Adopt Community Downtown Street and Parking Design Standards into the Zoning Ordinance that incorporates Street Type features as described in the Community Plans..*

In addition, the *Armona, Home Garden, and Stratford Community Plans* each contain policies which require the development of downtown parking plans (ACP Policy 2B.1.3, HGCP Policy 2B.2.2, and SCP Policy 2B.4.3) and amendment to the Zoning Ordinance to allow shared parking for mixed use businesses where parking demands do not overlap (ACP Policy 6B.1.2, HGCP Policy 6B.1.2, KCCP Policy 6B.1.2, and SCP Policy 6B.1.2). Downtown parking plans would re-designate street and parking layout to resolve parking limitations while allowing commercial and mixed-use development to share joint parking areas. Implementation of the proposed downtown parking plans and compliance with Countywide parking provision requirements would ensure that impacts to parking capacity in the community plan areas would be less than significant.

Mitigation Measures. None required.

Significance After Mitigation. Impacts would be less than significant without mitigation.

Impact TC-6 The 2035 General Plan would not accommodate design features that would hinder emergency access. Development occurring under the 2035 General Plan would be required to provide adequate emergency access. Impacts to emergency access would be Class III, *less than significant*.

The proposed 2035 General Plan would accommodate new development throughout the County. Development facilitated by the 2035 General Plan would be subject to applicable County standards and fire department standards, which require emergency access provisions. Compliance with existing requirements would ensure that adequate emergency access would be provided for by all new development facilitated by the General Plan. Impacts related to deficiencies in emergency access as a result of development under the draft 2035 General Plan would be less than significant.

Mitigation Measures. None required.

Significance After Mitigation. Impacts would be less than significant without mitigation.

4.15 UTILITIES and SERVICE SYSTEMS

This section evaluates potential impacts to water, wastewater, and solid waste service. Section 4.8, *Hydrology and Water Quality,* addresses potential impacts related to stormwater runoff, flooding, and surface water quality.

4.15.1 Setting

a. Water. Unincorporated, non-community service district areas in Kings County are generally served by on-site or nearby water delivery systems operated by private entities. There are about 2,000 to 3,000 residences with private wells and a large number of agricultural wells throughout non-community service district areas in Kings County. The County does not maintain data on the amount of water pumped by private wells (R. Cooke, Kings County Environmental Health Services, Personal Communications, March 12, 2009).

Tulare Lake Basin groundwater is pumped from both shallow and deep aquifers, depending on the type of land use. The shallow aquifer provides agricultural water supplies for irrigation of crops. The water in the shallow aquifer in Kings County is generally of a quality that is inappropriate for potable use. Domestic water supply is from wells that pump water from the deeper aquifer, but only where water quality meets drinking water standards for human consumption.

The majority of residential and commercial water consumption takes places within existing urban areas, primarily those with community service districts, which includes Armona, Home Garden, Kettleman City, and Stratford. Water supply, infrastructure and consumption within each of the community plan areas are discussed in greater detail below.

Armona. The Armona Community Services District (ACSD) provides water service to residents and businesses within the Community. The District serves approximately 1,200 service connections, which are all individually metered. Average consumption ranges from 177 to 193 million gallons a year and average usage is approximately 187.2 acre feet per year (AFY) (LAFCo Municipal Service Reviews, 2007). Water supply in Armona is provided by two active groundwater wells, which have the pumping capacity of 1,800 gallons of water per minute (GPM). The second well serves as backup during dry summer months. The existing water system facility includes treatment, storage, and booster pumping capabilities at well number one (Dillon Well), and water storage and booster pumping at well number two (7th Day Well) (LAFCo Municipal Service Reviews, 2007).

The ACSD anticipates that the water supply facilities are sufficient for the existing population only. The ACSD, however, is not restricted in the number of wells they can drill. As demand for water supply increases with population growth, the ACSD has indicated that it would drill new wells and construct additional water storage facilities in accordance with the Capital Facilities Plan (*2003-2008 Kings County Housing Element*). Additionally, ACSD's Capital Facilities Plan includes the provision of new wells and additional water storage capacity to accommodate potential housing sites as identified in the existing General Plan Housing Element. Furthermore, the ACSD has determined that an additional water storage facility tank with a capacity of 250,000 gallons will be necessary before the population exceeds 6,500. The

ACSD is also considering adding supplemental storage to well No. 2 in the future (LAFCo Municipal Service Reviews, 2007).

The ACSD has developed plans to construct a new Well (well no. 3) on 2 to 3 lots on an existing residential development. The plan calls for drilling a pilot well to determine water quality conditions. It is anticipated that the production of the described well will be 1,000 GPM. Well Number 3 will provide water to an estimated 1600 residents. Water service through the ACSD, like the majority of other communities and cities in the County, is out of compliance with the new EPA (Standards for arsenic, which is set at 10 parts per billion. The ACSD has determined that there will be the need to construct additional treatment facilities at well No. 2. To treat secondary water quality issues, which includes water color, odor, and iron, the ACSD will construct treatment facilities that will also address these issues (LAFCo Municipal Services Review, 2007). The ACSD is seeking funding to construct a water treatment facility to address these new water quality standards. The limited capacity of the existing system has kept new development from progressing (LAFCo Municipal Service Reviews, 2007).

Home Garden. The Home Garden Community Services District (HGCSD) provides water service to residents and businesses within the Community. Water use in Home Garden has averaged 350 AFY for the last four years (LAFCo Municipal Service Reviews, 2007). Community water is provided by two active wells (D-1 and D-2) that are capable of producing 1.5 MGD (million gallons per day) or 1,680 AFY. As such, Home Garden has a surplus of 1,330 AFY. The HGCSD also maintains one standby well (No. 4) that is out of service due to exceeding the Federal Arsenic Minimum Containment Levels. The HGCSD serves approximately 450 service connections. The only metered connections are the Gardenside School and Central Valley Family Health- Home Garden Clinic. The water supply provided by the HGCSD meets existing Community demand, but has uncertain capacity for any substantial additional connections (LAFCo Municipal Service Reviews, 2007).

Water supply facilities include five storage tanks totaling 55,000 gallons of storage (two 20,000 gallon storage tanks and three 5,000 gallon storage tanks). Currently, the HGCSD water service is out of compliance with the new EPA standards for arsenic. However, the HGCSD is in the process of developing a water treatment facility to improve the water quality to meet these standards. The facility is anticipated to come online by October 2009 and will be designed for a maximum flow of 1.8 MGD and serve up to an additional 1,466 households (LAFCo Municipal Service Reviews, 2007).

Kettleman City. The Kettleman City Community Services District (KCCSD) provides water service to residents and businesses within Kettleman City. Existing KCCSD water usage is approximately 315 AFY and the average per capita water use within the District is approximately 214 GPD (gallons per day) (LAFCo Municipal Service Reviews, 2007). Water is provided through two active wells. Well No. 1 produces 220 GPM and well No. 2 has a maximum pumping capacity of 400 GPM. It has been determined that existing facilities can provide water for an additional 1,500 residents, which is equivalent to providing an additional 314 AFY (LAFCo Municipal Service Reviews, 2007). The wells; however, have intermittent levels of benzene contaminants and do not meet EPA standards for arsenic, resulting in water quality issues. These secondary water quality issues have prompted the water treatment facility to be a top priority for the KCCSD and community as a whole. Summer peak flow demands

and limited storage tanks also place a strain upon the KCCSD's water system and leave it vulnerable to possible shortages (LAFCo Municipal Service Reviews, 2007).

Because the water supply is limited and insecure, little to no substantial growth has occurred in Kettleman City over the last several years. Consequently, the County has provided the community with State water credits of up to 900 AFY. In addition, KCCSD planned for a new water treatment facility to alleviate the water quality issues and is in the process of collecting money for the project. The planned facility is estimated to support services to 2,632 consumers, which could equate to 2,409 household units and up to 223 commercial and industrial users (at approximately 3,596 GPM or 2,120 AFY) (LAFCo Municipal Service Reviews, 2007).

The KCCSD maintains three water storage tanks for residential and commercial use. There are two 160,000 gallon tanks for commercial and service industry and one 400,000 gallon tank for residential uses (LAFCo Municipal Service Reviews, 2007).

Stratford. The Stratford Public Utilities District (SPUD) provides water service to residents and businesses within Stratford. Community water is provided by three wells and serves approximately 340 metered service connections. Well No. 6 produces approximately 500 GPM, well No. 7 produces 650 GPM, and well No. 8 produces approximately 750 GPM. Currently, well No. 8 is out of service. Therefore, maximum water availability is 1,150 GPM or 1,854 AFY. Water demand is approximately 550 GPM or 887 AFY. As such, there is an existing surplus of 967 AFY. An existing storage tank can also hold a volume of approximately 30,000 gallons (LAFCo Municipal Service Reviews, 2007).

The SPUD, unlike other community districts, is currently in compliance with the new EPA standards for arsenic. All water produced from wells is chlorinated at the well head prior to entry into the distribution system.

b. Stormwater. The Kings County Public Works Department maintains storm drainage facilities throughout the unincorporated areas of the County. Infrastructure and services such as curbs, gutters, and storm drainage; however, are limited or non-existent throughout the communities of Armona, Home Garden, Kettleman City, and Stratford. The limited, uncoordinated infrastructure is not sufficient to remove standing pools of water along roadways and storm drainage facilities and infrastructure will be needed as new growth occurs.

c. Wastewater. Wastewater services and infrastructure are provided by individual service districts for each of the four unincorporated communities. It is more limited in the unincorporated communities than in the incorporated areas of the county (*Kings County Housing Element*). In rural areas, sewer services are not provided, as development relies on individual septic tank systems.

Armona. The ACSD manages the sewer system in Armona and provides service to all but a very few of Armona's residents, who rely on septic systems. A sewage treatment plant, on the south end of town, was expanded in October 2006, to serve approximately 4,900 people, or receive approximately 0.534 MGD (based on a per capita generation rate of 109 gallons per day). However, the supplemental wastewater treatment and disposal capacity was reduced by 800 persons due to backwashing impacts, pond erosion, and continued residential growth (the

plant can now only serve a total population of approximately 4,100) (LAFCo Municipal Service Reviews, 2007). The treatment plant can accommodate an additional 861 residents, or approximately 0.181 MGD (based on a current population of 3,239). The ACSD has indicated however, that while current facilities can serve existing populations, capital improvements consisting of erosion mitigation measures are currently needed to better serve existing and future populations. More specifically, ACSD has determined that there is currently a need for the expansion of wastewater treatment and disposal facilities to a capacity of 0.70 to 1.0 MGD. (LAFCo Municipal Service Reviews, 2007).

Home Garden. HGCSD has a wastewater service contract agreement with the City of Hanford, which has served as a regional sewage collection system since 1978 after receiving Federal funding for its sewer infrastructure. Hanford's wastewater treatment currently receives five MGD of wastewater and has a design capacity of 8 MGD (City of Hanford General Plan, 2002). Based on combined (Hanford and Home Garden) population of 53,316 people as of 2008, the per capita influent is approximately 94gallons per person per day.

Kettleman City. The KCCSD provides sewer service and infrastructure for Kettleman City. The wastewater treatment plant currently receives 0.223 MGD and has a maximum capacity of 0.669 MGD (LAFCo Municipal Service Reviews, 2007). The KCCSD recently benefited from the wastewater treatment facility improvements made by Chemical Waste Management, Inc. The Phase I improvements to the KCCSD facility include construction of the surface water treatment plant that will increase the facility's capacity to 1.3 MGD. However, much of the underground water and sewer lines connecting residences and commercial uses to the District's facilities have been in place for over fifty years. These connecting pipe lines have often been found to be deteriorated and even noted as non-existent with only a rust-lined tunnel conveying water. Improvements are currently needed to the District's overall infrastructure to ensure adequate pressure can be maintained throughout the system after the new water treatment facility becomes operational (LAFCo Municipal Service Reviews, 2007).

Stratford. Wastewater services and infrastructure are provided through the SPUD. The treatment facility currently receives 0.085 MGD and has a capacity of 0.15 MGD (LAFCo Municipal Service Reviews, 2007). However, the existing wastewater treatment facility and the network of collection pipes that were constructed in 1959 were primarily made of asbestos cement pipe. Over time, these pipelines deteriorated and in the 1980's-1990's many of the town's sewer mains were sleeved to prevent leakage. The wastewater treatment facility and associated infrastructure will need to be upgraded in order to meet State standards. Additionally, the SPUD sewer system will require significant upgrades to accommodate additional growth within the Community. The SPUD has applied for a small community wastewater grant, for the purpose of expanding their existing sewer system and creates additional sewer capacity for new development (LAFCo Municipal Service Reviews, 2007).

d. Solid Waste. The Kings Waste and Recycling Authority (KWRA) receives solid waste from 13 service providers who perform solid waste collection and disposal services, including recyclable materials, for all County unincorporated areas, and the cities of Corcoran, Hanford, and Lemoore. Municipal waste generated in these areas is first directed to the KWRA Material Recovery Facility and Transfer Station, located at 7803 Hanford Armona Road, in an effort to recycle and re-use materials and divert waste from entering the landfills. The Materials

Recovery and Transfer station facility includes a small but complete Household Hazardous Waste collection station. As of 2006, the KWRA reported that a 48 percent recycling rate above the base year was accomplished on a Countywide basis (California Integrated Waste Management Board, 2009). The remaining waste is then transferred to the Chemical Waste Management, Inc/Kettleman Hills Facility (CWMI/KHF), which operates both municipal waste and hazardous waste landfills at their site located east of Interstate 5 along State Route 41.

KWRA transports approximately 15,873 tons of solid waste per year to the solid waste landfill. The permitted capacity is 4.2 million cubic yards and remaining capacity is 1.9 million cubic yards, or 1,140,000 tons[1]. The permitted throughput is 2,000 tons/day and the estimated closure date of the landfill is 2010. In addition, the CWMI/KHF opened a new municipal solid waste landfill known as B-17 in 2009. This landfill has a design capacity of 18.4 million cubic yards and it is scheduled to serve Kings County through 2030 (Lee Johnson, County Environmental Health Services Division, Personal Communications, March 3, 2009). Its permitted daily capacity is 2,000 tons/day. In addition to B-17, the Kings County Waste Management Authority has planned to open another landfill in Kettleman City, which once in operation is expected to serve the County through 2047 (California Integrated Waste Management Board, 2009). Furthermore, the Kings Waste Recycling Authority has an Integrated Waste Management Plan (1995) that contains the mandatory elements of a Source Reduction and Recycling Element (SRRE) and a Household Hazardous Waste Element (HHWE).

4.15.2 Impact Analysis

a. Methodology and Significance Thresholds. According to Appendix G of the *State CEQA Guidelines*, the project would have a significant impact with respect to water provision, wastewater treatment, and solid waste disposal if it would:

- *Require or result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;*
- *Fail to have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed;*
- *Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;*
- *Result in a determination that the wastewater treatment provider that it does not have adequate capacity to serve projected demand in addition to existing commitments;*
- *Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which would cause significant environmental effects;*
- *Result in not being served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs; or*
- *Comply with federal, state, and local statutes and regulations related to solid waste.*

[1] *Based on one cubic yard equaling 1,200 pounds, as stated within the Kings County Countywide Integrated Waste Management Plan.*

b. Project and Cumulative Impacts.

Impact U-1 Development facilitated by the 2035 General Plan would result in an increase in water demand and could require construction or expansion of water facility infrastructure within certain community plan areas. However, planned improvements and proposed 2035 General Plan policies would reduce potential impacts. Therefore, impacts would be Class III, *less than significant*.

The 2035 General Plan plans for up to 1,464 residential units within non-district unincorporated areas of the County. Based on the County's unincorporated average of 3.513 persons per household, this level of development would result in 5,143 additional residents. Based on an average water demand factor of 187 gallons[2] per capita per day (GPCD), this population would demand approximately 961,741 gallons of water per day, or 1,077 acre feet per year (AFY). Development within these areas would not impact existing water treatment plants or water conveyance facilities, as individual projects rely on individual private wells and are required to demonstrate adequate water supply prior to project approval. As discussed above, water supply within non-district areas of the County is generally provided by private wells and water purveyors near the project that pump water from the Tulare Lake Basin. Because water pumpage is not monitored by the County, it is not precisely known how this additional demand would impact the groundwater basin. Nonetheless, because water would be pumped from the basin, it is possible such pumping would impact groundwater supplies to a certain extent. However, 2035 General Plan policies include measures that encourage management of groundwater resources, ensure adequate water facilities and supplies existing prior to project approval and require conservation efforts, all of which reduce potential impacts to water facilities, water supply and groundwater resources. Therefore, impacts would be less than significant.

Armona. The *Armona Community Plan* plans for up to 1,623 additional residential units. Based on the Armona community average of 3.68 persons per household, this level of development would result in 5,973 additional residents. Based on an average water demand factor of 187 GPCD, this population would demand approximately 1,116,951 gallons of water per day, or 1,251 AFY. Currently ACSD has the capacity to treat and convey water only for the existing population. Any substantial increase in population would require new or expanded water facilities. Buildout of the Community Plan would increase the total population of Armona to 9,212. As such, adequate water supplies and facilities do not exist to serve the population increase as a result of the Community Plan. However, as demand for water supply and facilities increases as development occurs under the *Armona Community Plan*, the ACSD has indicated that it would drill new wells and construct additional water facilities as needed, the development of which could cause environmental impacts. However, impacts related to water supply and facilities would be reduced by policies set for the in the *Armona Community Plan*. The plan's policies, in part, require projects to demonstrate adequate water availability and implement water conservation efforts such as recycled water irrigation, low flow fixtures and

[2] *187 gallons per day demand factor is based on the daily average per capita demand rates of Armona, Home Garden Kettleman City, and Stratford. This was derived by dividing the total amount treated at each respective plant by the total population of the community plan area. It should be noted that this method also captures the amount of water demanded by commercial and industrial uses.*

drought tolerant plants. In addition, future development would be required to pay impact mitigation fees, which is the funding equivalent to the provision of water facilities and supply. Therefore, impacts would be less than significant.

Home Garden. The *Home Garden Community Plan* would permit up to 294 additional residential units. Based on Home Garden's average of 3.95 persons per household, this level of development would result in 1,161 additional residents. Based on an average water demand factor of 187 GPCD, this population would demand approximately 217,107 gallons of water per day, or 243 AFY. Home Garden currently has a water surplus of 1,330 AFY and the capacity to distribute such an amount. Therefore, adequate water facilities and supply would be available to serve the additional development that could occur under the Home Garden Community Plan. Impacts would be less than significant.

Kettleman City. The *Kettleman City Community Plan* would permit up to 975 additional residential units. Based on Kettleman City's current average of 4.68 persons per household for existing units and 3.30 persons per household for future development, this level of development would result in 3,218 additional residents. Based on an average water demand factor of 187 GPCD, this population would demand approximately 601,766 gallons of water per day, or 674 AFY. Currently, Kettleman City can provide an additional 314 AFY, thereby creating a deficit of 360 AFY. However, Kettleman City is currently in the process of developing a new water treatment plant, which upon completion would provide an additional 600 AFY (LAFCo Municipal Service Reviews, 2007). It should be noted that although the development that would occur under the Kettleman City Community Plan would create the demand for new or expanded water facilities, the new treatment plant is already in the process of being developed. In addition, the demand for additional water would occur incrementally as development occurs throughout the planning horizon of the *Kettleman City Community Plan*; therefore, the current surplus may be sufficient to support a certain level of development prior to the completion of the new water treatment plant. Moreover, the Community Plan includes policies which encourage the active pursuit of attaining new water supplies and encourage water conservation through the use recycled water. Therefore, because the combination of existing surplus and planned facilities would provide adequate water supply and facilities, and policies within the Community Plan would reduce demand and encourage the active pursuit of attaining new water sources, potential impacts would be less than significant.

Stratford. The *Stratford Community Plan* would permit up to 444 additional residential units. Based on Stratford's average of 4.33 persons per household, this level of development would result in 1,923 additional residents. Based on an average water demand factor of 187 GPCD, this population would demand approximately 359,601 gallons of water per day, or 403 AFY. Currently, Stratford has an existing water surplus of 967 AFY and the capacity to provide such an amount. In addition, the *Stratford Community Plan* includes policies that preclude development unless adequate water availability is demonstrated prior to project approval and encourage water conservation through the use of recycled water and drought tolerant plants. Therefore, because demand of the *Stratford Community Plan* would be less than surplus and adequate facilities exist to provide such, and the Stratford Community includes policies that reduce water demand and ensure adequate water supplies exist prior to new development, impacts would be less than significant.

General Plan Policies which Reduce Impacts. The *2035 General Plan Resource Conservation Element* includes the following policies, the implementation of which would reduce potential impacts to water supply and infrastructure.

RC Policy A1.1.1 *Cooperate with water purveyors and water management agencies to manage groundwater resources within the County to assure an adequate, safe and reliable groundwater supply for existing and future water users.*

RC Policy A1.1.2 *Review new discretionary development proposals, including new or expanded uses within agricultural zone districts, to ensure that there are adequate water supplies to accommodate such uses. Projects must provide evidence of adequate and sustainable water availability prior to approval of a tentative map or other land use approval.*

RC Policy A1.1.3 *Discourage the net export of groundwater and surface water resources currently allocated to water users within Kings County.*

RC Policy A1.1.4 *Work cooperatively with state and federal land managers to coordinate watershed management on public land.*

RC Policy A1.2.1 *Encourage and support the development of educational programs by water purveyors and public agencies, in order to increase public awareness of water conservation opportunities and the potential benefits of implementing water-saving measures and programs.*

RC Policy A1.2.2 *Require the use of low water consuming, drought-tolerant and native landscaping and other water conserving techniques, such as mulching, drip irrigation and moisture sensors, for new development.*

RC Policy A1.2.3 *Continue to support efforts and educational programs intended to reduce water consumption on agricultural lands and enhance groundwater recharge.*

RC Policy A1.2.4 *Encourage and support the development of recycled water systems in Kings County.*

RC Policy A1.2.5 *Encourage and support the safe use of gray water for landscaping, agriculture, recreation and open space areas.*

RC Policy A1.3.1 *Participate with and encourage all state, regional and local efforts to develop new or expanded water supplies that may serve Kings County.*

RC Policy A1.3.2 *Evaluate new urban development for compliance to SB610 and SB221 to ensure that adequate water supply sources and facilities are available to accommodate the new demand that would be created by such development.*

RC Policy A1.5.1 *Cooperate with local agencies in the preservation and purchase of natural sloughs for use as water recharge and drainage basins.*

The *2035 Armona Community Plan* includes the following policies, the implementation of which would reduce potential impacts to the water supply and infrastructure within Armona.

ACP Policy 2A.2.2 *Residential expansion beyond the existing Armona Community Services District boundary shall only be considered for annexation after an adequate water supply has been developed or improvement plans are demonstrated as attainable through certainty of funding mechanisms.*

ACP Policy 2B.2.1 *Development of Mixed Use within the North Community Expansion Area shall be restricted until such time as the Armona CSD develops sufficient quality water capacity and sewer capacity to service the area in addition to existing Community and probable infill development.*

ACP Policy 8B.1.2 *Coordinate with the Armona Community Services District to explore options for integrating reclaimed water usage within new growth areas.*

ACP Policy 8B.1.2 *Require new residential and commercial development to integrate drought tolerant landscaping and water conservation fixtures with the structures to reduce the average per capita water use within the Community.*

ACP Policy 8B.2.1 *A water service development impact fee shall be established and required of all new development within the Armona CSD to support District expansion of this service.*

ACP Policy 8B.2.2 *New Community Expansion Areas shall develop new water wells that will add additional capacity to the Armona CSD system.*

The *2035 Home Garden Community Plan* includes the following policies, the implementation of which would reduce potential impacts to the water supply and infrastructure within Home Garden.

HGCP Policy 2A.2.2 *Residential expansion within the Northwest Growth Area shall be required to demonstrate that adequate water and wastewater service capacity is available to serve new growth.*

HGCP Policy 5A.1.2 *New development, other than replacement or infill, shall be restricted if proposed new water connections are determined to result in decreased community water pressure, unless the development implements sufficient measures to improve water pressure within the community water system.*

HGCP Policy 5A.1.3 *Development of undivided and unimproved residential land within the existing Home Garden CSD may be considered when additional water service availability can be determined with certainty.*

HGCP Policy 5B.2.3 *New storm water drainage facilities established by new developments shall be required to establish a County Service Area or District Zone of Benefit that is supported by benefiting property assessments.*

The *2035 Kettleman City Community Plan* includes the following policies, the implementation of which would reduce potential impacts to the water supply and infrastructure within Kettleman City.

KCCP Policy 5A.1.1 *The Kettleman City Community Services District (KCCSD) should utilize the adjacent California Aqueduct as a water conveyance system and continue to search for new water supplies for existing and new residential and commercial development within the community.*

KCCP Policy 7B.1.4 *Water pressure necessary to support new development shall be required to support a 1,000 gallon per minute/2 hour duration for Residential, and a 1,500 gallon per minute/2 hour duration for Commercial.*

KCCP Policy 8B.1.1 *Require all new development to install water meters and encourage the Kettleman City Community Services District to migrate existing water customers to water meters.*

KCCP Policy 8B.1.2 *Design water and irrigation lines for Agricultural/Open Space areas and new parks to install "Purple" reclaimed water lines that can tie into the waste water treatment facility.*

The *2035 Stratford Community Plan* includes the following policies, the implementation of which would reduce potential impacts to the water supply and infrastructure within Stratford.

SCP Policy 2A.2.2 *Residential expansion beyond the existing Stratford Public Utilities District boundary shall remain designated as residential reserve and not be considered for annexation until such time as adequate water and sewer infrastructure improvements have been made that can adequately serve new community growth.*

SCP Policy 5A.1.6 *New Community Expansion Area growth shall be required to add additional water source capacity and make improvements to the Stratford PUD water system to meet projected additional water service demand and fire flow requirements.*

SCP Policy 5A.1.3 *New development shall be restricted if newly proposed water connections are determined to reduce community water pressure, unless sufficient measures are implemented to improve water pressure within the community water system.*

SCP Policy 5A.1.4 *Development of undivided and unimproved residential land within the existing Stratford PUD may be considered when additional water service availability can be determined with certainty.*

SCP Policy 8B.1.1 *Require all new development within the Stratford Public Utilities District to install water meters.*

SCP Policy 8B.1.2 *Coordinate with the Stratford Public Utilities District to explore options for integrating reclaimed water usage within new growth areas.*

SCP Policy 8B.1.2 *Require new residential and commercial development to integrate drought tolerant landscaping and water conservation fixtures with the structures to reduce the average per capita water use within the Community.*

Mitigation Measures. No additional mitigation is required beyond implementation of the proposed General Plan policies.

Significance after Mitigation. Impacts would be less than significant without mitigation.

Impact U-2 Development facilitated by the 2035 General Plan would increase wastewater generation above existing conditions and would require construction or expansion of treatment facilities within certain community plan areas. However, proposed 2035 General Plan policies would reduce potential impacts. Therefore, impacts would be Class III, *less than significant*.

The 2035 General Plan plans for up to 1,464 residential units within non-district unincorporated areas of the County. Based on the County's unincorporated average of 3.513 persons per household, this level of development would result in 5,143 additional residents. Based on an average wastewater generation factor of 109 GPCD[3], this population would generate approximately 0.56 MGD. Although non-district areas of unincorporated Kings County primarily rely on septic tank systems to dispose of wastewater effluent and future development would continue to rely on septic tanks to a certain extent, Policy A1.6.1 of the 2035 General Plan would require subdivisions to connect to existing sewer infrastructure of adjacent cities or community service district. This policy is intended to discourage the proliferation of septic tank system usage and encourage development adjacent to existing urban areas. It is speculative as to the number of subdivisions that would occur within the urban fringe areas, but it is reasonable to assume that some development within non-district areas will need to connect to existing community service district infrastructure to satisfy this General Plan policy, which would could cause the respective treatment facility to exceed capacity and create the need for new or expanded facilities, the construction of which could cause environmental impacts. Such subdivision development; however, would be subject to subsequent environmental review in which project specific wastewater impacts would be identified. By limiting development in Kings County to levels that are within the service capabilities of the community service districts, implementation of proposed objectives and policies would ensure that wastewater generation within County does not exceed available supplies. Therefore, impacts would be less than significant.

Armona. The *Armona Community Plan* would permit up to 1,623 additional residential units. Based on Armona's average of 3.68persons per household, this level of development would result in 5,973 additional residents. Based on an average wastewater generation factor of

[3] *109 gallons per day generation factor is based on the daily average per capita generation rates of Kettleman City and Stratford. This was derived by dividing the total amount treated at each respective plant by the total population of the community plan area. It should be noted that this method also captures the amount of wastewater generated by commercial and industrial uses.*

109 GPCD, this population would generate approximately 0.651 MGD. The wastewater treatment plant can accommodate 0.181 MGD. Therefore, buildout of the Community Plan would cause the treatment plant to exceed capacity by 0.470 MGD. This exceedance would create the needs for new or expanded treatment facilities, the construction of which could cause environmental impacts. However, the Armona Community Plan precludes development unless adequate wastewater treatment service can be demonstrated prior to project approval.

Home Garden. The *Home Garden Community Plan* would permit up to 294 additional residential units. Based on Home Garden's average of 3.95 persons per household, this level of development would result in 1,161 additional residents. Based on an average wastewater generation factor of 109 gallons GPCD, this population would generate approximately 0.127MGD. The HGCSD is dependent upon the City of Hanford for wastewater service. Currently, the Hanford treatment plant has an available capacity of approximately three MGD. The wastewater generated by buildout of the Community Plan would represent approximately 3.7 percent of remaining capacity. However, the remaining three MGD capacity is also intended to serve the City of Hanford. It is expected that the treatment facility will reach maximum capacity in 2016. Development within Home Garden, as within the City of Hanford, would contribute to the need for new or expanded treatment facilities, the construction of which could cause environmental impacts. Although it is reasonable to assume that Hanford would expand or develop new treatment facilities as needed, it is uncertain as to whether adequate wastewater facilities would be available to serve the *Home Garden Community Plan* through the year 2035. The Community Plan would however, require that future development demonstrate that adequate capacity is available prior to approval of the project, thereby minimizing potential impacts related to the treatment facility. Expansion of wastewater services and infrastructure for the level of development facilitated by the Community Plan would require coordination between the HGCSD and the City of Hanford and service availability from the City would also have to be determined on an individual project basis. Nonetheless, the Community Plan would preclude development that could not be adequately served by treatment facilities. Therefore, impacts are less than significant.

Kettleman City. The *Kettleman City Community Plan* would permit up to 975 additional residential units. Based on Kettleman City's current average of 4.68 persons per household for existing units and 3.30 persons per household for future development, this level of development would result in 3,218 additional residents. Based on an average wastewater generation factor of 109 gallons GPCD, this population would generate approximately 0.351 MGD. Currently, the treatment plant has a remaining capacity of 0.446 MGD, and upon completion of the treatment plant upgrades, the remaining capacity would be 1.07 MGD. Therefore, development under the *Kettleman City Community Plan* would be adequately served by the treatment plant through the year 2035. However, existing sewer main infrastructure is outdated and deteriorating. It is likely that as development occurs, upgrades to sewer mains may be necessary in order for the treatment plant to operate properly, the construction of which could cause environmental impacts. However, the needed improvements are a result of existing conditions rather than a result of the Community Plan. Because the existing treatment plant has the capacity to adequately serve development under the Community Plan through the year 2035, impacts would be less than significant.

Stratford. The Stratford Community Plan would permit up to 444 additional residential units. Based on Stratford's average of 4.33 persons per household, this level of development would result in 1,923 additional residents. Based on an average wastewater generation factor of 109 GPCD, this population would generate approximately 0.209MGD. Currently, the treatment plant has a remaining capacity of 0.065 MGD. Development under the *Stratford Community Plan* would result in a 0.144 MGD exceedance. Therefore, new or expanded treatment facilities, the construction of which could cause environmental impacts, would be required to accommodate the additional development that could occur under the *Stratford Community Plan*. The Community Plan requires however, that future development to contribute to the expansion of the treatment facility as development occurs such that adequate service can be provided. This provision would ensure that adequate wastewater treatment capacity is available to serve future development. Therefore, impacts would be less than significant.

General Plan Policies which Reduce Impacts. The *2035 General Plan Resource Conservation Element* includes the following policies, the implementation of which would reduce potential impacts to wastewater facilities and services.

RC Policy A1.6.1 *Require subdivisions with lot sizes of less than one acre to connect to the sewer and water services of a city or community district.*

The *2035 Armona Community Plan* includes the following policies, the implementation of which would reduce potential impacts to wastewater facilities and services within Armona.

ACP GOAL 5A *Armona attains a quality water system and community wastewater treatment system that sustains a healthy living environment.*

ACP Policy 2B.2.1 *Development of Mixed Use within the North Community Expansion Area shall be restricted until such time as the Armona CSD develops sufficient quality water capacity and sewer capacity to service the area in addition to existing Community and probable infill development.*

The *2035 Home Garden Community Plan* includes the following policies, the implementation of which would reduce potential impacts to wastewater facilities and services within Home Garden.

HGCP Policy 2A.2.2 *Residential expansion within the Northwest Growth Area shall be required to demonstrate that adequate water and wastewater service capacity is available to serve new growth.*

The *2035 Stratford Community Plan* includes the following goal and policies, the implementation of which would reduce potential impacts to wastewater services within Stratford.

SCP GOAL 5B *The community wastewater treatment system provides adequate and sustainable service to existing residences and businesses and upgrades allow for the future build out of the community.*

SCP Policy 5B.1.2 *The Stratford PUD should evaluate low cost alternative wastewater treatment facility options to establish a baseline cost estimate that can be applied towards new growth.*

SCP Policy 5B.1.3 *New growth within the community, Sphere Growth Areas, and Community Expansion Area shall contribute towards the financing of the District's wastewater treatment facility upgrade.*

Mitigation Measures. No significant impacts were identified.

Significance after Mitigation. Impacts would be less than significant without mitigation.

Impact U-3 Development facilitated by the 2035 General Plan would incrementally increase the amount of impervious surfaces within the County and community plan areas, resulting in increased stormwater runoff and the need for additional stormwater infrastructure. However, 2035 General Plan policies would reduce potential impacts. Therefore, impacts would be Class III, *less than significant.*

Infrastructure and services such as curbs, gutters, and storm drainage, however, are limited or non-existent throughout the unincorporated areas of the County and the communities of Armona, Home Garden, Kettleman City, and Stratford. The limited, uncoordinated infrastructure is not sufficient to adequately and efficiently remove stormwater from impervious surfaces. Development within the County and community plan areas facilitated by the 2035 General Plan, would accommodate up to 4,800 dwelling units, 1,779,376 square feet of commercial spaces and 4,483,115 square feet of industrial spaces. This level of development would incrementally increase the amount of impervious surface area and place additional demand on existing stormwater conveyance infrastructure, such that new or expanded infrastructure would be needed. However, the precise location and type infrastructure needed is not currently known due to the programmatic nature of the 2035 General Plan. It is anticipated that as development occurs, stormwater infrastructure would need to be upgraded on a project-specific basis. These projects would be subject to subsequent environmental review and would be required to comply with the County's General Plan policies as they relate to stormwater infrastructure, as well as State requirements for stormwater management. Therefore, impacts would be less than significant.

General Plan Policies which Reduce Impacts. The *2035 General Plan Resource Conservation Element* includes the following policies, the implementation of which would reduce potential impacts to storm drainage facilities and services.

RC Policy C2.2.2 *Continue to require the application of construction related erosion control measures, including Stormwater Pollution Protection Plans (SWPPP) for all new construction.*

The *2035 Armona Community Plan* includes the following policies, the implementation of which would reduce potential impacts to storm drainage facilities within Armona.

ACP Policy 5B.1.1 *Require new development to integrate onsite stormwater drainage features to increase the storm water detention throughout the community.*

ACP Policy 5B.1.2 *Integrate stormwater detention basins into the design of parks, parkways, medians, and other open space areas to serve as dual purpose facilities.*

ACP Policy 5B.1.3 *New stormwater drainage facilities established by new developments shall be required to establish a County Service Area or District Zone of Benefit that is supported by benefiting property assessments.*

ACP Policy 5C.1.1 *Sidewalks, curbs, and gutters shall be required on all development and must integrate with a storm drainage system that is either onsite or through a community system that can be connected to. All development shall be consistent with the Kings County Public Works improvement standards for sidewalk, curb, gutter, and storm drainage.*

The *2035 Home Garden Community Plan* includes the following policies, the implementation of which would reduce potential impacts to storm water facilities within Home Garden.

HGCP Policy 5B.1.1 *The County shall develop a communitywide storm drainage plan in coordination with the Home Garden CSD to identify needed improvements and facilities as long as it is funded by grants or other funds.*

HGCP Policy 5B.2.1 *Require new development to integrate on-site storm water drainage features that increasingly disperse the storm water detention throughout the community.*

HGCP Policy 5B.2.2 *Integrate storm water detention basins into the design of parks, parkways, medians, and other open space areas to serve as dual purpose facilities.*

HGCP Policy 5B.2.3 *New storm water drainage facilities established by new developments shall be required to establish a County Service Area or District Zone of Benefit that is supported by benefiting property assessments.*

The *2035 Kettleman City Community Plan* includes the following policies, the implementation of which would reduce potential impacts to storm water facilities within Kettleman City.

KCCP Policy 5B.1.1 *Require new development to integrate onsite stormwater drainage features to increase the stormwater detention throughout the community.*

KCCP Policy 5B.1.2 *Integrate stormwater detention basins into the design of parks, parkways, medians, and other open space areas to serve as dual purpose facilities.*

KCCP Policy 5C.1.2 *Sidewalks, curbs, and gutters shall be required on all development and must integrate with a storm drainage system that is either onsite or*

through a community system that can be connected to. All development shall be consistent with the Kings County Public Works improvement standards for sidewalk, curb, gutter, and storm drainage.

The *2035 Stratford Community Plan* includes the following policies, the implementation of which would reduce potential impacts to storm water facilities within Stratford.

SCP Policy 5C.1.1 *Require new development to integrate onsite stormwater drainage features to increase the storm water detention throughout the community.*

SCP Policy 5C.1.2 *Integrate stormwater detention basins into the design of parks, parkways, medians, and other open space areas to serve as dual purpose facilities.*

Mitigation Measures. No significant impacts were identified.

Significance after Mitigation. Impacts would be less than significant without mitigation.

Impact U-4 Development facilitated by the 2035 General Plan would result in an overall increase in the amount of solid waste generated. However, existing and planned landfills could adequately serve development throughout the planning horizon of the 2035 General Plan. Therefore, impacts would be Class III, *less than significant* impact.

Development facilitated by the 2035 General Plan would accommodate up to 4,800 dwelling units, 1,779,376 square feet of commercial spaces and 4,483,115 square feet of industrial spaces. As shown in Table 4.15-1, the growth that could occur under the 2035 General Plan would generate an additional 24 tons/day or 10,801 tons/year of solid waste (assumes a 50 percent diversion rate as required by the California Integrated Waste Management Act).

Table 4.15-1. Net Increase in Solid Waste Generation

Land Use	Units	Generation Factor	Solid Waste Generation[1]
Residential	4,800 du	12.23 lbs/du/day	14.7 tons/day or 5,356 tons/year
Commercial	1,779,376 sf	0.006 lbs/sf/day	2.7 tons/day or 974 tons/year
Industrial	4,483,115 sf	0.006 lbs/sf/day	6.7 lbs/day or 2,454 tons/year
		Total	**24 lbs/day or 8,784 tons/year)**

1. Includes 50 percent reduction as required by the California Integrated Waste Management Act.
sf = square feet
lbs = pounds
du = dwelling units
Generation Factors Source: California Integrated Waste Management Board, Solid Waste Information System, Estimated Solid Waste Generation Rates for Residential, Commercial, Industrial and Institutional Establishments, http://www.ciwmb.ca.gov/WasteChar/ WasteGenRates/default.htm, accessed March 3, 2009.

The newly opened landfill (B-17) can accommodate up to 2,000 tons/day of solid waste. The increase in solid waste generation represents 1.2 percent of the daily permitted capacity of B-17 landfill. As such, adequate landfill capacity is available to serve the additional development that could occur throughout majority of the life of the 2035 General Plan, up to the year 2030 (Lee Johnson, County Environmental Health Services Division, Personal Communications, March 3, 2009). The California Integrated Waste Management Act requires that counties prepare a solid waste management plan that plans for solid waste disposal sites at least 15 years into the future, as indicated by the planned landfill west of Kettleman City. Should B-17 become full prior to buildout of the 2035 General Plan, the planned landfill west of Kettleman City is expected to accommodate waste generated by the County through the year 2047. In addition, future development under the 2035 General Plan would be required to comply with the Kings County Countywide Integrated Waste Management Plan. This plan includes source reduction, recycling, composting, special waste and household waste programs, all of which strive to reduce overall solid waste generation. Implementation of these programs may further extend the life of existing and planned landfills that would or are expected to serve the County. Therefore, impacts would be less than significant.

General Plan Policies which Reduce Impacts. The 2035 General Plan does not include specific policies related to solid waste. However, the *Resource Conservation Element* does reference the Kings County Countywide Waste Management Plan. This plan includes several waste reduction, recycling and composting programs aimed to reduce over all solid waste generation. As noted above, adequate capacity within existing and planned landfills is available to serve the life of the 2035 General Plan. The waste management plan would further contribute to the reduction in solid waste generation over the life of the 2035 General Plan.

Mitigation Measures. No significant impacts were identified.

Significance after Mitigation. Impacts would be less than significant without mitigation.

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5.0 OTHER CEQA DISCUSSIONS

This section discusses other issues for which CEQA requires analysis in addition to the specific issue areas discussed in Section 4.0, *Environmental Impact Analysis*. These additional issues include the potential to induce growth and significant and irreversible impacts on the environment.

5.1 GROWTH INDUCING IMPACTS

In accordance with Section 15126.2(d) of the State CEQA Guidelines, "an EIR must discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." In addition, when discussing growth-inducing impacts of a proposed project, "it must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment" (CEQA Guidelines, Section 15126.2(d)).

a. Population and Economic Growth. A project would induce growth if it would remove barriers to population growth, such as a change to a jurisdiction's general plan and zoning ordinance, which would allow new residential development to occur. Similarly, a project could induce economic growth depending on the extent to which it can cause managed activity in the local or regional economy.

As discussed in Section 2.0, *Project Description*, the proposed 2035 General Plan would accommodate up to 4,800 residential units throughout the County, including growth within the community plan areas. General Plan and Community Plan policies ensure that this potential growth would consist of infill development and redevelopment, and would not result in the urbanization of land in a remote location without first being reviewed through the "New community Application and Processing Procedures" found in Appendix A of the 2035 General Plan. The California Department of Finance (DOF) projects that the total population of unincorporated Kings County in 2035 will be 41,080, which is approximately 5,769 people beyond the existing population of 35,311. Maximum development facilitated by the 2035 General Plan would add an estimated 16,863 residents (4,800 dwelling units x 3.513 people/dwelling unit) to the existing population of unincorporated Kings County and; therefore, could result in a total population of approximately 52,174 in the year 2035. This population would be approximately 11,094 persons beyond DOF projections for the year 2035.

Although the population at buildout of the 2035 General Plan would be inconsistent with DOF population projections for the year 2035, such an inconsistency would not result in physical environmental impacts. The physical environmental impacts that are associated with the growth that could under the 2035 General Plan have been analyzed and disclosed in Sections 4.1 through 4.15 of this document. As such, the 2035 General Plan would not induce growth and development beyond that analyzed and disclosed within this document.

Moreover, the Department of Finances growth projections do not reflect the historical population growth pattern for Kings County. The 1990 Census listed the unincorporated portion of Kings County, less the Santa Rosa Rancheria and the Naval Air Station Lemoore, at 27,461 residents. Department of Finance 2008 estimates for the same portion of Kings County is

27,406, resulting in a decrease of 55 residents over the past 18 years. This translates into an average annual population growth rate of approximately -0.01 percent over the past 18 years. Kings County Community Development Agency estimates, based on the 18 year growth rate.

This low historical population growth is due to the County's past efforts of encouraging growth to occur in the cities and communities, thereby protecting the Counties farmland resource. Growth in city fringe areas, that would have further increased the County's population, was annexed to the neighboring city providing services.

In addition, the 2035 General Plan would accommodate up to 1,779,376 square feet of commercial development and 4,483,115 square feet of industrial development throughout the County. This would result in new employment opportunities (including short-term construction jobs), improve the jobs to housing balance within the community plan areas, and foster economic sustainability with the County. It would also result in greater employment-generating uses that may generate a secondary demand for goods and services to support new and expanding businesses. Thus, the 2035 General Plan will increase the amount of economic activity resulting from the direction and strategies within the County, therefore inducing growth; however, the growth would be consistent with the regional growth forecasts that have been adopted for the County.

b. Removal of Obstacles to Growth. A physical obstacle to growth typically involves the lack of public service infrastructure. The extension of public service infrastructure, including roadways, water mains, and sewer lines, into areas that are not currently provided with these services is expected to support new development. Similarly, the elimination or change in a regulatory obstacle, including existing growth and development policies, can result in new population growth.

Kings County does not own or operate any water or sewer systems. Growth within the community districts depends on those districts expanding their service systems. The 2035 General Plan policies provide for the expansion of infrastructure to accommodate new growth within the existing communities. To the extent that new infrastructure would be sized to serve only existing and planned development (including growth related to the community plans), growth inducement would not be considered detrimental to the environment.

In addition to the above, a number of proposed General Plan objectives and policies limit development potential in the areas currently limited by the extent that district services and infrastructure are or can be made available. These include:

LU Policy D1.2.2: *Prioritize infill development of vacant and underutilized parcels within the existing special district boundaries where water and sewer service are available to reduce outward growth pressure and costly expansion of district facilities.*

LU Policy D1.4.2: *Distribute residential land use among the four Community Plans to flexibly accommodate new housing units where sufficient special district service capacity is made available and according to market demand.*

LU Policy D1.6.4: *Approval of new development within a Community District shall be limited to the extent that district services and infrastructure are or can be made available.*

c. Conclusion. The proposed 2035 General Plan inherently represents carefully-planned growth within the area in coordination with the various community districts, calling for the provision of new housing, industrial, and commercial uses, along with enhancements to and protection of the natural environment. Thus, by its nature, the intent of the plan is to reduce the potential for growth-inducing impacts.

5.2 IRREVERSIBLE ENVIRONMENTAL EFFECTS

PRC, Section 21100(b) (2), and CEQA Guidelines, Section 15126.2(b), require that any significant and unavoidable effect on the environment must be identified. In addition, CEQA Guidelines, Section 15093(a), allows the decision-making agency to determine whether the benefits of a proposed project outweigh the unavoidable adverse environmental impacts of implementing the project. The County can approve a project with unavoidable adverse impacts if it prepares and adopts a "Statement of Overriding Considerations" setting forth the specific reasons for making such a judgment. For each of the unavoidable adverse impacts, the County must prepare and adopt a Statement of Overriding Considerations if the County approves the Project. The Executive Summary provides detailed summary tables that identify the Project's environmental impacts, proposed mitigation measures, and level of significance after mitigation.

Construction activity that would be accommodated under any of the 2035 General Plan land use scenarios would involve the use of building materials and energy, some of which are non-renewable resources. Consumption of these resources would occur with any development in the region and are not unique to Kings County or the General Plan. The addition of new residential and non-residential development in the County would irreversibly increase local demand for non-renewable energy resources such as petroleum and natural gas. Increasingly efficient building fixtures and automobile engines, as well as implementation of policies included in the 2035 General Plan, are expected to offset the demand to some degree. It is not anticipated that growth accommodated under the General Plan would significantly affect local or regional energy supplies.

Growth facilitated by the General Plan would require an irreversible commitment of law enforcement, fire protection, water supply, wastewater treatment, and solid waste disposal services. As discussed in Sections 4.12 *Public Services* and 4.15 *Utilities*, impacts to public services and utilities would be reduced to a less than significant level with payment of impact mitigation fees and/or implementation of policies included in the 2035 General Plan.

The additional vehicle trips associated with growth through 2035 would incrementally increase local traffic, noise levels and regional air pollutant emissions. As discussed in Section 4.3, *Air Quality*, implementation of General Plan policies and regional air pollution programs would reduce the air pollutant emissions associated with individual future development projects to below significance thresholds, with the exception of greenhouse gases. As discussed in Section 4.3, currently there are no established thresholds for greenhouse gas emissions. As such,

impacts remain potentially significant. As discussed in Section 4.10, *Noise*, implementation of proposed policies would reduce the noise impacts associated with future growth to a less than significant level. As discussed in Section 4.14, *Transportation and Circulation,* proposed intersection level of service performance standards could be met at all City intersections with implementation of planned roadway upgrades, 2035 General Plan policies and Mitigation Measures TC-1(a) and TC-2(b).

6.0 ALTERNATIVES

As required by Section 15126.6 of the State CEQA Guidelines, this section of the EIR examines a range of alternatives to the 2035 General Plan. Included in this analysis are two versions of the CEQA-required "no project" alternative (no further development and growth in accordance with the 1993 General Plan), a reduced development intensity alternative, and an alternative that allows the same level of development in a less dense configuration. The alternatives are listed below:

- *Alternative 1: No Project (No Further Development)*
- *Alternative 2: No Project (1993 General Plan Buildout)*
- *Alternative 3: Reduced Project*
- *Alternative 4: Dispersed Non-District Growth*

As required by CEQA, this section also includes a discussion of the "environmentally superior alternative" among those studied.

As summarized in Section 2.4, the general objectives of the 2035 General Plan are as follows.

- Promote and concentrate residential, commercial and industrial growth within the Community Plan areas of Armona, Home Garden, Kettleman City and Stratford;
- Establish mixed uses in the Community Plan areas to create definable downtown cores that promote pedestrian usage and economic vibrancy;
- Provide traffic circulation routes and public transportation that meet the needs of County residents through the year 2035 and reduce overall vehicle miles traveled;
- Protect County residents from exposure to excessive noise levels;
- Reduce or eliminate long term risk to people and property from natural or man made hazards;
- Protect water, natural lands, agriculture, prime soils, native plant & animal habitat, threatened & endangered species, fishing, energy, mineral, and archaeological, cultural and historical resources throughout the County;
- Establish open spaces throughout the County that promote the preservation of agriculture and scenic resources and provide community and safety separation buffers; and
- Improve air quality throughout the County and reduce impacts associated with greenhouse gases and climate change.

6.1 ALTERNATIVE 1: No Project (No Further Development)

6.1.1 Description

This version of the "no project" alternative assumes that no further residential or non-residential development would occur in Kings County and that environmental conditions would not change from existing conditions. No new roadway infrastructure improvements, parks, or other facilities would be constructed. It is assumed that the current unincorporated territory population, excluding NAS Lemoore, and Santa Rosa Rancheria (approximately 27,682) would not change, though it should be recognized that the County cannot in reality

control whether or not population growth occurs. Absent additional housing, any population growth in the County would be accommodated through increasing the number of persons per household.

6.1.2 Impact Analysis

Implementation of this alternative would not result in any physical changes as it would not accommodate any new development. As such, impacts related to construction and long-term site disturbances, such as agricultural resources, biological resources, cultural resources, geology, and aesthetics impacts would not occur. In addition, assuming that the current unincorporated territory population would not change, impacts based on per capita generation would not occur. These issues include air quality, noise, public services (including water supply), recreation, and transportation and circulation.

This alternative would facilitate no changes to the local circulation system, it would not address impacts relating to regional traffic growth, which the County does not control, nor would it add bike lanes, pedestrian facilities, or other circulation system improvements. In addition, not facilitating the construction of additional housing and non-residential development could potentially result in overcrowded conditions within the existing housing stock and lack of jobs and/or retail shopping opportunities for county residents. However, overall, impacts would be less than the proposed 2035 General Plan and would be less than significant.

It should be noted; however, that this is a purely hypothetical alternative that is not realistic given that even if a General Plan update is not adopted, property owners in Kings County would retain the development rights they have under the current General Plan.

6.1.3 Achievement of Project Objectives

This alternative would ***not*** meet the following project objectives:

- Promote and concentrate residential, commercial and industrial growth within the Community Plan areas of Armona, Home Garden, Kettleman City and Stratford;
- Establish mixed uses in the Community Plan areas to create definable downtown cores that promote pedestrian usage and economic vibrancy;
- Provide traffic circulation routes and public transportation that meet the needs of County residents through the year 2035 and reduce overall vehicle miles traveled;
- Protect water, natural lands, agriculture, prime soils, native plant & animal habitat, threatened & endangered species, fishing, energy, mineral, and archaeological, cultural and historical resources throughout the County;
- Establish open spaces throughout the County that promote the preservation of agriculture and scenic resources and provide community and safety separation buffers; and
- Improve air quality throughout the County and reduce impacts associated with greenhouse gases and climate change.

6.2 ALTERNATIVE 2: No Project (1993 General Plan)

6.2.1 Description

This version of the "no project" alternative involves continued implementation of the 1993 General Plan. As such, this alternative assumes that development facilitated by the 1993 General Plan, including private development and planned infrastructure improvements, would occur.

Table 6-1 below compares potential buildout under the proposed 2035 General Plan and potential buildout under the No Project (1993 General Plan) Alterative (refer also to Tables 2-8 and 2-9 in Section 2.0, Project Description). As shown therein, this alternative would result in 1,231 fewer residential units, 279,781 fewer commercial square feet, and 75,011 fewer industrial square feet when compared to the proposed 2035 General Plan. This translates to a 20.6 percent reduction in residential buildout, 8.5 percent reduction in commercial buildout, and 0.9 percent reduction in industrial buildout.

Table 6-1. Proposed 2035 General Plan Buildout and No Project (1993 General Plan) Alternative Buildout

Area	2035 General Plan Buildout	Alternative 2 Buildout
Armona		
Residential Units	2,584	1,864
Commercial SF	981,794	1,001,583
Industrial SF	222,957	327,056
Home Garden		
Residential	721	816
Commercial SF	49,828	186,628
Industrial SF	41,896	52,446
Kettleman City		
Residential	1,295	713
Commercial SF	851,274	868,773
Industrial SF	1,750,453	1,646,567
Stratford		
Residential	736	712
Commercial SF	241,030	136,874
Industrial SF	377,368	443,841
Non-District County		
Residential	7,616	7,616
Commercial SF	1,188,403	838,730
Industrial SF	5,705,053	5,552,806
Countywide Totals		
Residential Units	**12,952**	**11,721**
Commercial SF	**3,312,329**	**3,032,548**
Industrial SF	**8,097,727**	**8,022,716**

For the most part, land use designations and descriptions included in the 2035 General Plan would be similar to the 1993 General Plan. However, several land use designation changes have been incorporated into the 2035 General Plan. These include the creation of a new Mixed Use designation, as well as the re-designation of a substantial amount of agricultural land to Natural Resource Conservation, Open Space, or Public land use classifications. The Mixed Use

designation would accommodate a substantial increase in residential units and commercial space within the Community Plan areas. In addition, the 2035 General Plan would accommodate an additional 75,011 square feet of industrial space due to various land use changes within Community Plan areas as well as other non-district areas of the County. Therefore, the changes proposed by the 2035 General Plan would generally promote more intense development as compared to the 1993 General Plan.

6.2.2 Impact Analysis

As discussed above, the main difference between the 1993 General Plan and the proposed 2035 General Plan is the creation of a new Mixed Use designation, the re-designation of a substantial amount of agricultural land as Natural Resource Conservation, Open Space, or Public land, and the intensification of development within existing communities. Elimination of these changes under the No Project (1993 General Plan) alternative would result in a 9.5 percent decrease in residential buildout, 8.5 percent decrease in commercial buildout, and 0.9 percent decrease in industrial buildout when compared to the 2035 General Plan. This reduced development would result in reduced vehicle miles traveled (VMT), which is a benefit associated with improved air pollutant emissions and reduced traffic related noise impacts. Similarly, because 9.5 percent fewer residences would be constructed, 9.5 percent fewer residents would be added to the existing countywide population. Impacts based on per capita generation, including public services, water supply, and recreation, would therefore be somewhat reduced. However, because the reduction in vehicle trips and population would be relatively minor, impact levels would be the same as the proposed 2035 General Plan and mitigation for these impacts would still be required, as applicable.

Although overall development under the 2035 General Plan would be greater than the No Project (1993 General Plan) alternative, the increased development would occur as the result of greater densities, not necessarily an increase in developable area. In other words, a similar amount of site disturbance would occur under this alternative when compared to the proposed 2035 General Plan. As such, impacts related to long-term site disturbances, including aesthetics, agricultural resources, biological resources, cultural resources, and geology, would be similar. However, there would be greater impacts associated with higher concentration of development, particularly regarding aesthetics, air quality, hazardous materials, and noise. Impacts levels would remain the same, and mitigation would still be required.

6.2.3 Achievement of Project Objectives

This alternative would ***not*** meet the following project objectives:

- Promote and concentrate residential, commercial and industrial growth within the Community Plan areas of Armona, Home Garden, Kettleman City and Stratford;
- Establish mixed uses in the Community Plan areas to create definable downtown cores that promote pedestrian usage and economic vibrancy;
- Provide traffic circulation routes and public transportation that meet the needs of County residents through the year 2035 and reduce overall vehicle miles traveled;
- Protect water, natural lands, agriculture, prime soils, native plant & animal habitat, threatened & endangered species, fishing, energy, mineral, and archaeological, cultural and historical resources throughout the County;

- Establish open spaces throughout the County that promote the preservation of agriculture and scenic resources and provide community and safety separation buffers; and
- Improve air quality throughout the County and reduce impacts associated with greenhouse gases and climate change.

6.3 ALTERNATIVE 3: Reduced Project

6.3.1 Description

Alternative 3 would reduce residential, commercial and industrial development by 30 percent of that proposed by the 2035 General Plan. This alternative includes the same policies and community plans as proposed by 2035 General plan. Development would be reduced by 30 percent in each of the community plan areas as well as within other unincorporated areas. Compared to existing conditions, the reduced density alternative would result in an additional 3,360 residential units, 1,245,563 square feet of commercial space and 3,138,180 square feet of industrial space, as opposed to an additional 4,800 residential units, 1,179,376 square feet of commercial space and 4,483,115 square feet of industrial space proposed under the 2035 General Plan. Alternative 3 buildout is further detailed in Table 6-2.

Table 6-2. Existing Development and Potential Growth and Buildout Under Alternative 3

Area	Existing Development as of 2008	Potential Growth Under Alternative 3	Total Buildout Under Alternative 3
Armona			
Residential Units	961	1,136	2,097
Commercial SF	680,581	210,849	891,430
Industrial SF	219,298	2,561	221,859
Home Garden			
Residential	427	205	632
Commercial SF	35,911	9,741	45,652
Industrial SF	41,896	0	41,896
Kettleman City			
Residential	320	682	1,002
Commercial SF	487,148	254,888	742,036
Industrial SF	923,907	578,582	1,502,489
Stratford			
Residential	292	310	602
Commercial SF	132,065	76,275	208,340
Industrial SF	267,933	76,604	344,537
Non-District County			
Residential	6,152	1,024	7,176
Commercial SF	197,248	693,808	891,056
Industrial SF	2,161,578	2,480,404	4,641,892
Countywide Totals			
Residential Units	**8,152**	**3,357**	**11,509**
Commercial SF	**1,532,953**	**1,245,563**	**2,778,516**
Industrial SF	**3,614,612**	**3,138,180**	**6,752,792**

Note: Potential commercial and residential growth includes the growth that could occur in Mixed Use designations.
SF= square feet.
Note: These values do not include development that occurs on Naval Air Station Lemoore

In general, this alternative would result in less overall development than the proposed 2035 General Plan, and also the 1993 General Plan, as demonstrated by comparing the buildout potential shown in Table 6-1 to the buildout potential shown in Table 6-2. However, because the 2035 General Plan includes new land use designations and changes the intensity of development within Aroma, Home Garden and Kettleman City, impacts would be greater under Alternative 3 than that which could occur under the 1993 General Plan.

6.3.2 Impact Analysis

Aesthetics

The 30 percent reduction in density of development could incrementally reduce visual impacts by reducing the overall intensity of development. It could also incrementally reduce the potential for aesthetic impacts relating to height and shadows, and light and glare. Overall, the aesthetic impacts of this alternative would be less than the proposed 2035 General Plan. As with the proposed 2035 General Plan, implementation of draft General Plan policies would reduce aesthetic impacts associated with this alternative to a less than significant level.

Agricultural Resources

Impacts to agricultural resources would be similar to those of the proposed 2035 General Plan because the areas of potential disturbance would be roughly the same. Impacts to agricultural resources were found to be less than significant with the proposed 2035 General Plan; therefore, impacts related to this alternative would be similarly less than significant.

Air Quality

The overall increase in air pollutant emissions associated with this alternative would be 30 percent lower than what could occur under the draft 2035 General Plan due to the reduction in overall development potential. Air quality impacts of the proposed General Plan are less than significant without the 30 percent reduction in buildout densities. Similar to the 2035 General Plan, impacts would be further reduced with implementation of proposed General Plan policies. However, as discussed in Section 4.3, *Air Quality*, thresholds are not currently established for greenhouse gas emissions. As such, although this alternative would reduce emissions by 30 percent, it would still contribute 250,304.8 metric tons of CO_2e per year. Therefore, impacts related to greenhouse has emissions would remain significant but mitigable. This alternative would be subject to mitigation measure AQ-5 as identified in section 4.3 *Air Quality* for impacts related to greenhouse gases. Other air quality impacts would not require mitigation, as they were found to be less than significant.

Biological Resources

Biological resource impacts would be similar to those of the proposed 2035 General Plan because the areas of potential disturbance would be roughly the same. Impacts to biological resources were found to be significant and unavoidable with the proposed 2035 General Plan; therefore, impacts related to this alternative would be similarly significant and unavoidable.

Cultural Resources

Cultural resource impacts would be similar to those of the proposed 2035 General Plan because the areas of disturbance would be roughly the same. As with the proposed 2035 General Plan, implementation of draft General Plan policies would further reduce cultural resource impacts to a less than significant level.

Geology

Geologic hazard impacts would be similar to those of the proposed 2035 General Plan because the areas of disturbance would be roughly the same. The reduced project could incrementally reduce the potential for exposure to geologic hazards due to the decreased development potential. However, because development would continue to occur within the same area, overall impacts would be similar. As with the proposed 2035 General Plan, implementation of 2035 General Plan policies would reduce geologic impacts associated with this alternative to a less than significant level.

Hazards and Hazardous Materials

Impacts relating to hazards would be similar to those of the proposed 2035 General Plan. The 30 percent reduction in development potential throughout the County would reduce the potential for exposure to hazards. However, no significant impacts were identified in section 4.7 Hazard and Hazardous Materials. As with the proposed 2035 General Plan, implementation of draft General Plan policies would reduce further hazard/hazardous material impacts to a less than significant level.

Hydrology and Water Quality

Hydrology and water quality impacts generally would be less than those of the proposed 2035 General Plan. The 30 percent reduction in development potential would incrementally reduce surface runoff and stormwater runoff. As with the 2035 General Plan, impacts related to hydrology and water quality would be addressed through standard engineering practices and compliance with federal, state, and local runoff control requirements, as well as implementation of 2035 General Plan policies. Therefore, impacts would remain less than significant.

Land Use and Planning

Similar to the proposed 2035 General Plan, this alternative would generally be consistent with regional land use plans and policies identified in Section 4.9 Land Use. A 30 percent reduction in development potential would not trigger inconsistency with existing regional land use plans and/or policies. Therefore, as with the proposed 2035 General Plan, impacts related to land use and planning would be less than significant.

Noise

Overall increases in noise and exposure to noise would be reduced as compared to the proposed 2035 General Plan because of the 30 percent reduction in development potential. This would result in less vehicle miles traveled and noise generated from vehicular traffic. Impacts

associated with the proposed 2035 General Plan were found to be less than significant. Therefore, a reduction in development potential would further reduce noise below established thresholds. In addition, as with the proposed 2035 General Plan, implementation of draft General Plan policies, including incorporation of appropriate noise attenuation features on new development would further reduce the potential for noise impacts. Therefore, impacts remain less than significant.

Population and Housing

Population and housing growth with this alternative would be less than that of the proposed 2035 General Plan. This alternative would generate approximately 11,803 additional residents, as opposed to 16,682 under the proposed 2035 General Plan. The proposed General Plan was found to be consistent with Department of Finance estimates for population growth, and because this alternative would result in less population growth, impacts would remain less than significant. In addition, this alternative would continue to provide a balance between jobs and housing, as the 30 percent reduction applies equally to residential, commercial and industrial. In addition, as with the 2035 General Plan, impacts related to population and housing would be further reduced by implementation of draft General Plan policies. Therefore, impacts would remain less than significant.

Public Services

The overall increase in demand for public services would be reduced by 30 percent with this alternative as compared to the proposed 2035 General Plan. Specifically, an additional 60 firefighters and 23 deputies would be needed, as opposed to 86 firefighters and 33 deputies needed under the proposed 2035 General Plan. In addition, this alternative would generate approximately 2,409 K-8 students and 605 high school students, as opposed to 2,640 K-8 students and 864 high school students under the proposed General Plan Update. Impacts to public services under the proposed General Plan were found to be less than significant, and because this alternative would result in a lesser demand for public services, impacts would remain less than significant.

Recreation

The overall increase in demand for recreational facilities would be reduced by 30 percent with this alternative as compared to the proposed 2035 General Plan. Both existing and planned park facilities were determined to be adequate under full buildout of the proposed General Plan using the standard of two acres of parkland per 1,000 residents. This alternative would result in even lesser demand for park facilities. Adequate park facilities would be available, as existing and planned parkland acreage would remain the same. Therefore, impacts would remain less than significant.

Transportation and Circulation

The proposed 2035 General Plan would impact six roadway segments as identified in section 4.14 Traffic and Circulation. A 30 percent reduction in development potential as proposed by this alternative would reduce trip generation such that roadway volume thresholds at these

roadways are no longer exceeded. As such, implementation of this alternative would reduce all traffic impacts to a less than significant level and mitigation would not be necessary.

Utilities and Service Systems

With this alternative, overall increases in water demand and wastewater generation would be reduced by approximately 30 percent, but impacts would be similar to the proposed General Plan because, in general, limited water resources and wastewater capacity are available. However, impacts were determined to be less than significant under the 2035 General Plan because it includes policies that would reduce potential impacts by ensuring the provision of adequate utility systems to serve new development. Therefore, because this alternative would further reduce demand for water and wastewater capacity, impacts would remain less than significant.

6.3.3 Achievement of Project Objectives

This alternative would achieve many of the project objectives; however, because residential, commercial and industrial development would be reduced by 30 percent, it would ***not*** meet the following project objectives to the same extent as the proposed project:

- Promote and concentrate residential, commercial and industrial growth within the Community Plan areas of Armona, Home Garden, Kettleman City and Stratford; and
- Establish mixed uses in the Community Plan areas to create definable downtown cores that promote pedestrian usage and economic vibrancy;

6.4 ALTERNATIVE 4: Dispersed Non District Growth

6.4.1 Description

This alternative would result in the same growth and buildout as the proposed 2035 General Plan; however, resident development would be reduced within the four community plan areas. The density of each community plan area would be reduced by 30 percent and this development potential would be redistributed throughout non-district areas of the County. Commercial and industrial development would remain the same as proposed by the 2035 General Plan. This alternative would include the same policies within the community plans as proposed by the original plan. The reduced density alternative would result in 3,008 additional residential units in non-district areas of the County, as opposed to 1,464 residential units proposed by the 2035 General Plan. This re-distribution of residential development density is further detailed in Table 6-3 below.

Table 6-3. Existing Development and Potential Growth Under Alternative 4

Area	Existing Development as of 2008	Potential Growth Under Alternative 4	Total Buildout Under Alternative 4
Armona			
Residential Units	961	1,136	2,097
Commercial SF	680,581	301,213	981,794
Industrial SF	219,298	3,659	222,957
Home Garden			
Residential	427	205	632
Commercial SF	35,911	13,917	49,828
Industrial SF	41,896	0	41,896
Kettleman City			
Residential	320	682	1,002
Commercial SF	487,148	364,126	851,274
Industrial SF	923,907	826,546	1,750,453
Stratford			
Residential	292	310	602
Commercial SF	132,065	108,965	241,030
Industrial SF	267,933	109,435	377,368
Non-District County			
Residential	6,152	2,467	8,619
Commercial SF	197,248	991,155	1,188,403
Industrial SF	2,161,578	3,543,435	5,705,053
Countywide Totals			
Residential Units	**8,152**	**4,800**	**12,952**
Commercial SF	**1,532,953**	**1,779,376**	**3,312,329**
Industrial SF	**3,614,612**	**4,483,115**	**8,097,727**

Note: Potential commercial and residential growth includes the growth that could occur in Mixed Use designations.
SF= square feet.
Note: These values do not include development that occurs on Naval Air Station Lemoore

6.4.2 Impact Analysis

Aesthetics

This alternative would reduce the concentration of residential development with community plan areas and re-distribute it into non-urbanized areas. The introduction of additional urban development within non-urbanized areas would result in greater visual and aesthetic impacts as compared to the proposed 2035 General Plan due to visual incompatibility, potential removal of scenic features, and an increased potential to disrupt scenic views. The proposed General Plan concentrates development within already urbanized areas, thereby resulting in minimal visual impacts. Therefore, impacts to aesthetics would be greater under this alternative.

Agricultural Resources

Agricultural impacts associated with this alternative would be greater than the proposed 2035 General Plan. This alternative would introduce a greater amount of residential development in otherwise undeveloped areas, much of which is likely to occur on agricultural lands, thereby resulting in a greater conversion of agricultural lands to non-agricultural uses. This alternative would convert a minimum of 3,008 acres of agricultural land because residential parcels in the unincorporated portion of the County outside community districts must provide their own

septic system and well. The level of conversion of agricultural land would represent 0.003 percent of the overall amount of agricultural lands within the County. However, these future residences would most likely be developed within short driving distance to the County's urban areas. Nearly all of the 29,152 acres of farmland identified as "High Priority" by the County's Priority Agricultural Land Model is adjacent to the Counties four cities. If a minimum of 3,008 additional acres were developed, this could account for a loss of approximately 10.3 percent of the County's highest rated agricultural land. This alternative would also have significant effects on the counties Williamson Act program which covers 92 percent of all eligible farmland in the County. This alternative would require the perspective parcels under contract to file non-renewal. In addition, if 30% of the residential development in the county was designated very low density to accommodate septic systems, the County feasibly would not be able to comply with the Regional Blueprint designated average density of 6.8 dwelling units per acre. Therefore, impacts would be considered significant.

Air Quality

A reduction in the amount of residential development within the community plan areas under Alternative 4 would reduce the amount of mixed use and infill development within the four community plan areas. The mixed use designation allows for a mixture of land uses to be incorporated on a single parcel or in business districts. As discussed in Section 4.14, *Transportation and Circulation,* mixed use development and infill development encourage alternative transportation because residences, employment centers, and services are closer together. Therefore, because there would be less mixed use and infill development with the community plan areas and more development spread out within the non-urban areas of the County, vehicle miles travelled would be greater and air quality impacts would be greater. Similarly, greenhouse gas emission impacts would be higher. Therefore, impacts would be considered significant.

Biological Resources

This alternative may result in a greater potential to impact biological resources because it would accommodate more development in undeveloped areas that may contain biological resources, including sensitive habitats and species, as compared to the proposed 2035 General Plan. Therefore, impacts remain significant and unavoidable.

Cultural Resources

This alternative would accommodate more development in undeveloped areas that may contain cultural resources. Therefore, impacts would be greater than the proposed project and would be significant.

Geology

With this alternative, geologic hazard impacts would be similar to those of the proposed 2035 General Plan because development may occur within the general vicinity of existing geologic hazards, such as ground shaking, liquefaction and landslides. As with the proposed 2035 General Plan, implementation of 2035 General Plan policies and compliance with existing State regulation would reduce geologic impacts related to ground shaking, liquefaction, and

landslides to a less than significant level. Nevertheless, there could be increased potential hazard to structures depending on where dispersed growth occurred.

Hazards and Hazardous Materials

Impacts relating to hazards with this alternative would be both lesser and greater than those of the proposed 2035 General Plan. Redistribution of residential development throughout the County could expose residences to hazards if development were to occur in rural areas with high fire hazards. Impacts would also be greater if development were to be distributed near the existing airports within the County. Impacts would be less because their would be less redevelopment of sites within the Community Plan requiring demolition of older structures potentially contain asbestos containing materials (ACM) and/or lead-based paint (LBP). As with the proposed 2035 General Plan, implementation of draft General Plan policies would reduce further hazard/hazardous material impacts to a less than significant level.

Hydrology and Water Quality

Hydrology and water quality impacts with this alternative have the potential to be greater than the proposed 2035 General Plan. A greater amount of development would occur in non-developed areas, as opposed to already urbanized areas as would occur under the proposed General Plan. Development under this alternative would increase impervious surfaces in otherwise underdeveloped areas, thereby contributing increased stormwater runoff and contamination associated with it. Conversely, lower density development would allow for greater infiltration of stormwater runoff. As with the 2035 General Plan, impacts related to hydrology and water quality would be addressed through standard engineering practices and compliance with federal, state, and local runoff control requirements, as well as implementation of 2035 General Plan policies. Therefore, impacts would remain less than significant.

Land Use and Planning

This alternative would not be consistent with regional planning efforts or with the Local Agency Formation Commission (LAFCo) as it is contrary to protection of prime agricultural land and efficient provision of services. The Regional Blueprint designates average densities of 6.8 dwelling units per acre. This alternative would most likely prevent the County from achieving this more concentrated density goal. Dispersing 30 percent of the proposed development throughout the County would also create significant impacts to State Routes and County controlled roads resulting in direct conflict with the County's Regional Transportation Plan. Therefore, as with the proposed 2035 General Plan, impacts related to land use and planning would be significant.

Noise

Overall increases in noise and exposure to noise would be greater under this alternative. This alternative would introduce a greater level of development in otherwise undeveloped areas, which would result in increased traffic related noise and general operating noise of residential areas. Potential noise exposure could also be increased if dispersed residential growth is located in NAS Lemoore flight corridors, rail lines, or near other noise creating areas. On the other hand, new residents and occupants would be exposed to lower levels of noises than if

they were in densely developed areas within the four community areas. As with the proposed 2035 General Plan, implementation of draft General Plan policies and incorporation of appropriate noise attenuation features on new development would reduce the potential for noise impacts. Because potential noise exposure could be increased if dispersed residential growth is located in NAS Lemoore flight corridors, rail lines, or near other noise creating areas, impacts would be significant.

Population and Housing

Population and housing growth would be equal to that of the proposed 2035 General Plan. An intention of the 2035 General Plan is to focus future development in Kings County in areas that are already developed, which includes the communities of Armona, Home Garden, Kettleman City, and Stratford. "Infill" development would occur in the four unincorporated community plan areas as identified on the proposed land use maps for each community plan area. This alternative would continue to provide a balance between jobs and housing. Land in areas outside of communities is agriculture and requires large parcel sizes. Development of residential units not associated with commercial agriculture would be cost prohibitive and not meet objectives of the Housing Element for meeting all affordable levels. However, because there may be less mixed use and infill development within the community plan areas, there may be fewer residences constructed adjacent to employment centers. Nevertheless, as with the 2035 General Plan, impacts related to population and housing would be reduced by implementation of 2035 General Plan policies; therefore, impacts remain less than significant.

Public Services

The overall increase in demand for public services with this alternative would be the same as under the 2035 General Plan. Because population growth would be the same under this alternative as compared to the proposed General Plan, the additional demand for firefighters and police officers would remain at 86 and 33, respectively. In addition, the number of students generated under this alternative would be the same as that generated under the proposed 2035 General Plan, which would be 2,640 K-8 students and 864 high school students. Although this alternative would generate the same population growth, such growth would be more dispersed, which would require firefighters to have to respond to greater dispersed areas, rather than concentrated communities. This would result in less efficient provision of fire protection services, such that impacts would be significant.

Recreation

The overall increase in demand for parkland would be the same as under the 2035 General Plan. Because population growth would be the same under this alternative as compared to the proposed General Plan, the additional demand for parkland would remain at 89.6 acres. Between existing and planned park facilities, the County would provide 130.7 acres; therefore, adequate parkland would be available to serve this alternative and the proposed 2035 General Plan. However, such dispersed growth would not provide the nexus of Quimby Act Fees for provision of community parks and would reduce park creation potential. Moreover, as discussed in section 4.13 Recreation, the Community Plan areas of Armona, Home Garden and Kettleman City would not provide adequate parkland for their respective populations. With

implementation of General Plan policies and payment of impact mitigation fees, impacts would be reduced to a less than significant level.

Transportation and Circulation

Alternative 4 would reduce the amount of mixed use and infill development within the four community plan areas. As discussed in Section 4.14, *Transportation and Circulation,* mixed use and infill development encourages alternative transportation and reduces vehicle miles travelled. With greater residential development occurring in non-urban areas of the County away from employment centers, there would be greater vehicle miles travelled and vehicle hours travelled, and associated greater transportation and circulation impacts. However, the 2035 General Plan policies are built around centralized, more compact growth. Dispersed growth is not addressed in the policies and would have greater impacts to transportation and circulation, therefore, impacts would be significant.

Utilities and Service Systems

Demand for water supply and water and wastewater facilities would be reduced by 30% within the four Community Plan areas, as this alternative would decrease development potential within these areas by 30 percent. However, demand for water supply and water facilities within non-district areas would increase by 30 percent. This would place further demand on groundwater resources, as most of the non-district areas utilize private wells that pump groundwater. In addition, this would result in increased use of septic tank systems because there are no existing sewer facilities in non-district areas to serve such development. Development under this alternative would be subject to the policies of the 2035 General Plan and County Zoning Ordinance which precludes development unless adequate water supply and water and wastewater facilities can be demonstrated. Impacts would be unknown or additional individual wells on the outskirts of communities could impact district service wells. Therefore, potential impacts would be significant.

6.4.3 Achievement of Project Objectives

This alternative would ***not*** meet the following project objectives:

- Promote and concentrate residential, commercial and industrial growth within the Community Plan areas of Armona, Home Garden, Kettleman City and Stratford;
- Establish mixed uses in the Community Plan areas to create definable downtown cores that promote pedestrian usage and economic vibrancy;
- Provide traffic circulation routes and public transportation that meet the needs of County residents through the year 2035 and reduce overall vehicle miles traveled;
- Protect County residents from exposure to excessive noise levels;
- Reduce or eliminate long term risk to people and property from natural or man made hazards;
- Protect water, natural lands, agriculture, prime soils, native plant & animal habitat, threatened & endangered species, fishing, energy, mineral, and archaeological, cultural and historical resources throughout the County;

- Establish open spaces throughout the County that promote the preservation of agriculture and scenic resources and provide community and safety separation buffers; and
- Improve air quality throughout the County and reduce impacts associated with greenhouse gases and climate change.

6.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

As required by CEQA, this section discusses the environmentally superior alternative. Each of the alternatives discussed in this section has certain advantages and disadvantages as compared to the proposed 2035 General Plan, as summarized below:

- *The **No Project (no further development)** alternative could be considered environmentally superior because it would result in no increase in traffic, air pollution or noise, and no increase in demand for utilities or services. It would result in no physical impacts. On the other hand, this alternative would not meet state directives, regional planning objectives, and many of the 2035 General Plan objectives, including promoting and concentrating residential, commercial and industrial growth within the Community Plan areas of Armona, Home Garden, Kettleman City and Stratford; establishing mixed uses in the Community Plan areas to create definable downtown cores that promote pedestrian usage and economic vibrancy; providing traffic circulation routes and public transportation that meet the needs of County residents through the year 2035 and reduce overall vehicle miles traveled; and establishing open spaces throughout the County that promote the preservation of agriculture and scenic resources and provide community and safety separation buffers; and improving air quality throughout the County and reducing impacts associated with greenhouse gases and climate change. This alternative is unlikely to occur.*
- *The **No Project (1993 General Plan)** alternative would allow slightly less development to occur as compared to the 2035 General Plan. Since this alternative does not include increased residential, commercial and industrial development potential, it could reduce potential traffic impacts and air quality impacts, but not to an insignificant level. On the other hand, it could have somewhat greater impacts to "natural" areas since it includes less overall open space and natural resource conservation acreage. This alternative does not meet mandated state requirements or regional planning objectives and would also conflict with future LAFCo project conditions. It also does not meet several project objectives, including promoting and concentrating residential, commercial and industrial growth within the Community Plan areas of Armona, Home Garden, Kettleman City and Stratford; establishing mixed uses in the Community Plan areas to create definable downtown cores that promote pedestrian usage and economic vibrancy; providing traffic circulation routes and public transportation that meet the needs of County residents through the year 2035 and reduce overall vehicle miles traveled; and establishing open spaces throughout the County that promote the preservation of agriculture and scenic resources and provide community and safety separation buffers; and improve air quality throughout the County and reducing impacts associated with greenhouse gases and climate change.*
- *The **Reduced Project** alternative could incrementally reduce impacts by approximately 30 percent. Impacts under this alternative would generally be less than that of the proposed 2035 General Plan. This alternative would achieve many of the project objectives; however, because residential, commercial and industrial development would be reduced by 30 percent, it would not meet the following project objectives to the same extent as the proposed project:*

promote and concentrate residential, commercial and industrial growth within the Community Plan areas of Armona, Home Garden, Kettleman City and Stratford; and establish mixed uses in the Community Plan areas to create definable downtown cores that promote pedestrian usage and economic vibrancy;

- *The **Dispersed Non-District Growth** alternative would still facilitate residential, commercial and industrial development similar to the proposed 2035 General Plan. Impacts may be greater as they relate to aesthetics, air quality, hydrology and water quality, transportation and circulation, and water supply and water and wastewater infrastructure. This alternative would not meet state directives, regional planning objectives, and many of the 2035 General Plan objectives, including promoting and concentrating residential, commercial and industrial growth within the Community Plan areas of Armona, Home Garden, Kettleman City and Stratford; establishing mixed uses in the Community Plan areas to create definable downtown cores that promote pedestrian usage and economic vibrancy; providing traffic circulation routes and public transportation that meet the needs of County residents through the year 2035 and reduce overall vehicle miles traveled; protecting County residents from exposure to excessive noise levels; reducing or eliminating long term risk to people and property from natural or man made hazards; and establishing open spaces throughout the County that promote the preservation of agriculture and scenic resources and provide community and safety separation buffers; and improve air quality throughout the County and reducing impacts associated with greenhouse gases and climate change.*

The No Project (no further development) alternative can be considered environmentally superior overall since it would avoid all impacts by eliminating future growth. However, this alternative would not meet state directives, regional planning objectives, and many of the 2035 General Plan objectives, is not feasible (from either a legal or practical standpoint), and may not be desirable in many respects. Among the remaining alternatives, the Reduced Project alternative would be the environmentally superior alternative because it would still allow for development to occur, but would reduce physical disturbance impacts and per capita impacts when compared to the proposed 2035 General Plan. However, because residential, commercial and industrial development would be reduced by 30 percent, it would not meet several project objectives to the same extent as the proposed project and poses unrealistic expectations and limitations on future growth that may occur in Kings County. Refer to Table 6-4 below for a project alternative comparison table.

Table 6-4. Project and Alternative Comparison Table

Environmental Issue Area	2035 General Plan	Alternative 1 - No Project (No Further Development)	Alternative 2 - No Project (1993 General Plan Buildout)	Alternative 3 - Reduced Project Alternative	Alternative 4 - Dispersed Non-District Growth
Aesthetic	Class III	Class IV / -	Class III / -	Class III / -	Class II / +
Agricultural Resources	Class III	Class IV / -	Class III / -	Class III / =	Class I / +
Air Quality	Class I	Class IV / -	Class I / -	Class II / -	Class I / +
Biological Resources	Class III	Class IV / -	Class II / -	Class III / =	Class II / +
Cultural Resources	Class III	Class IV / -	Class II / -	Class III / =	Class II / +
Geology	Class III	Class IV / -	Class II / -	Class III / =	Class II / =
Hazards and Hazardous Materials	Class III	Class IV / -	Class III / -	Class III / =	Class III / -+
Hydrology and Water Quality	Class III	Class IV / -	Class II / -	Class III / -	Class II / -+
Land Use	Class III	Class IV / -	Class II / -	Class III / =	Class I / +
Noise	Class III	Class IV / -	Class II / -	Class III / -	Class II / -+
Population and Housing	Class III	Class II / -	Class II / -	Class III / -	Class I / +
Public Services	Class III	Class IV / -	Class III / -	Class III / -	Class III / =
Recreation	Class III	Class I / -	Class II / -	Class III / -	Class I / +
Transportation and Circulation	Class II	Class II / -	Class II / -	Class IV / -	Class I / +
Utilities and Service Systems	Class III	Class IV / -	Class III / -	Class III / -	Class II / +

Class I = significant and unavoidable impact
Class II = significant but mitigable impact
Class III = less than significant impact
Class IV = no impact

** Impact classifications are shown for the greatest impact within the issue area (i.e., if Class II and III impacts were identified within the issue area, the table indicates the overall impact within that issue area as Class II).*

- impact would be lower than that of the 2035 General Plan
+ impact would be greater than that of the 2035 General Plan
-+ impacts would be both lower and greater than that of the 2035 General Plan
= impact would be the same as that of the 2035 General Plan

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7.0 REFERENCES and REPORT PREPARERS

7.1 REFERENCES

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7.1.2 Persons Contacted

Cooke, Raymond. Kings County Department of Heath Services, March 11, 2009

Granger, Kelly. Armona Community Services District, March 12, 2009

Johnson, Lee, Environmental Health Officer IV, Kings County Environmental Health Services Division

Putnam, Commander Dave. Kings County Sheriffs Department, March 5, 2009

Skaggs, Brian. Kettleman City Community Services District, March 9, 2009

Vern, Mike. Kings County Fire Department, February 23, 2009

Cooke, Raymond. Kings County in Environmental Health Services, March 12, 2009.

7.2 REPORT PREPARERS

This EIR was prepared by the County of Kings with the assistance of Rincon Consultants, Inc., Consultant staff involved in the preparation of the EIR are listed below.

Rincon Consultants, Inc.

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Sara Thompson, Associate
Megan Edgar, Staff Planner
Duane Vander Pluym, Principal
Carrie Wingert, Biologist
Craig Huff, GIS Specialist
Kealoha Amido, Production Assistant

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Appendix A

Notice of Preparation and Responses

KINGS COUNTY
COMMUNITY DEVELOPMENT AGENCY

Bill Zumwalt, Director

PLANNING DIVISION

Greg Gatzka, Deputy Director – Planning

Web Site: http://www.countyofkings.com/planning/index.html

Notice of Preparation (NOP)
& Notice of Scoping Meeting for the
Draft Program Environmental Impact Report for the
2035 Kings County General Plan

To: State Agencies
Responsible Agencies
Local and Public Agencies
Interested Parties
State Clearinghouse

From: County of Kings
Community Development Agency
Planning Division
1400 W. Lacey Blvd, Bldg 6
Hanford, CA 93230

The Kings County Community Development Agency is the lead agency for the preparation and review of the Program Environmental Impact Report (EIR) for the 2035 Kings County General Plan. Pursuant to section 15082 of the California Environmental Quality Act (CEQA), the County is soliciting views from your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. The department will also accept written comments concerning the scope and content of the EIR from interested persons and organizations concerned with the project.

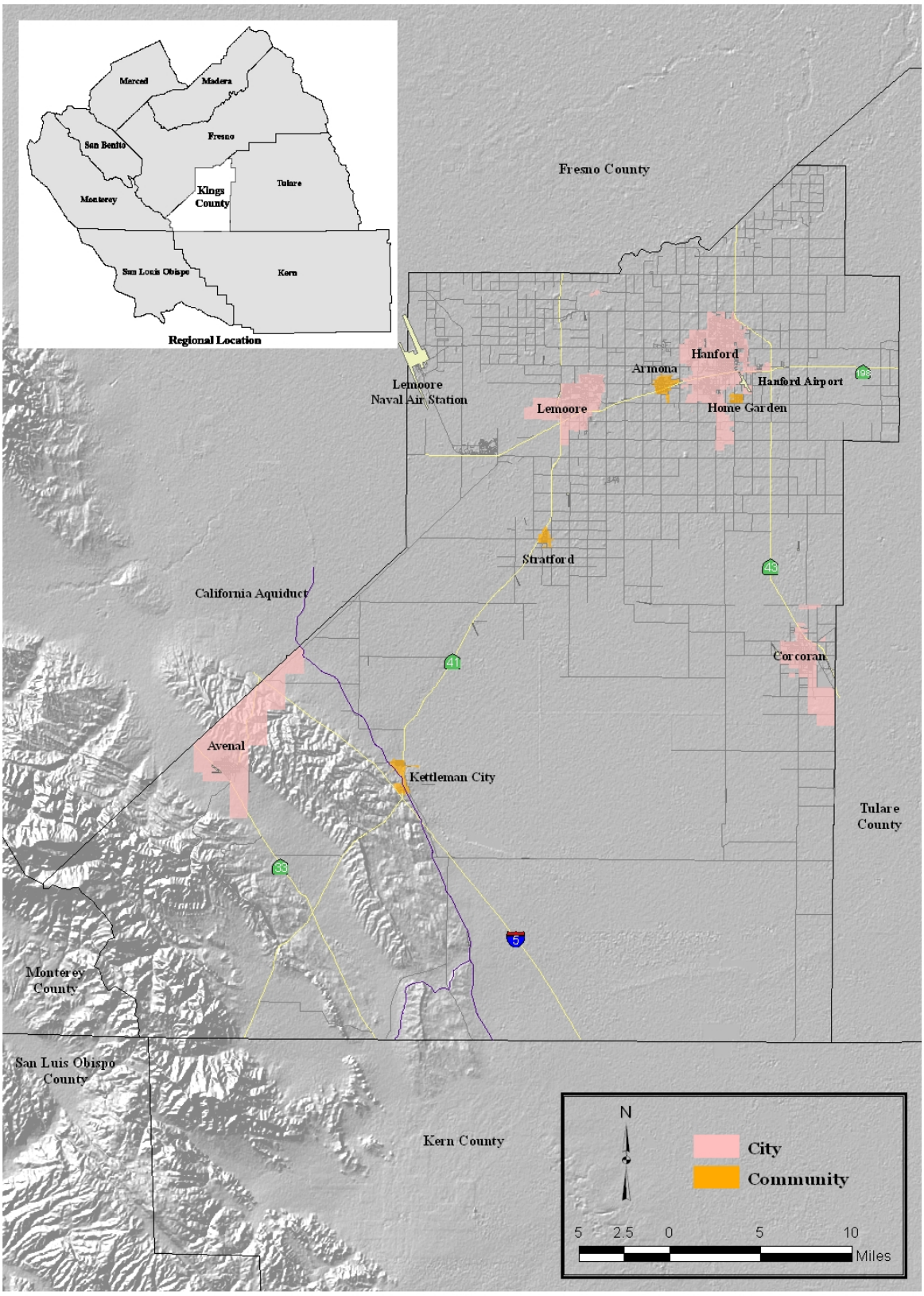
A summary of the project description and Initial Study detailing the probable environmental effects associated with the 2035 Kings County General Plan may be found online at the Kings County Community Development Agency webite www.countyofkings.com/planning/gen_plan_adv_com.html. To arrange an alternative delivery method please contact Jeremy Kinney with the Community Development Agency at (559) 582-3211 extension 2673. The Draft 2035 General Plan including all associated background studies and maps will be available for review at the Kings County Community Development Agency, all Kings County Library locations, and online at www.countyofkings.com/planning/index.html. Time limits required by State law, mandate your response to be sent at the earliest possible date but not later than 30 days after receipt of this notice.

A public information/scoping meeting will be held on **Monday, December 15, 2008** in the Kings County Board of Supervisors Chambers located at 1400 W. Lacey Blvd., Building 1, at 7:00 pm. All interested agencies, parties, and members of the general public are encouraged to attend.

Date: Nov. 26, 2008 Signature: William R Zumwalt

Bill Zumwalt
Title: Community Development Agency Director
Telephone: (559) 582-3211

Figure 1 - Kings County 2035 General Plan NOP
County and Regional Location Map



I. PROJECT DESCRIPTION

The Kings County General Plan, with the last comprehensive update adopted on December 28, 1993, has had fifteen amendments between 1994 and 2004, and included a new optional Dairy Element adopted on July 30, 2002, and 2003 Housing Element update adopted on January 27, 2004. The 2035 Kings County General Plan represents the County's latest comprehensive effort to bring the County general plan up to date and current with local and regional conditions, and State legislative changes. The general plan update includes updates to the Land Use, Resource Conservation, Open Space, Circulation, Safety, and Noise Elements. As part of the general plan update, the County also developed four community plans to address growth and restraint issues in the County's four unincorporated communities which serve as the most likely areas to accommodate County unincorporated urban growth. The four community plans cover the unincorporated communities of Armona, Home Garden, Kettleman City, and Stratford, which are served by either a Community Services District or Public Utilities District. A new Air Quality Element has also been developed to address local green house gas emission reduction efforts, and ties County local land use planning with regional planning efforts to better address urban growth and emissions within the San Joaquin Valley. The 2003 Housing Element and 2002 Dairy Element with its own EIR are not part of the general plan update, and therefore not considered part of this project. Both of these elements will continue in force on their own merit. A 2009 Housing Element is under development, but on its own separate adoption timeline in 2009 and being done jointly with the County's four Cities of Avenal, Corcoran, Hanford and Lemoore.

Notable changes from the 1993 Kings County General Plan to the proposed 2035 Kings County General Plan includes the following:

1. Land Use Element -

The Land Use Element has been reorganized to group land use policies into five distinctive categories that are reflective of the County's unincorporated environment. Modeled after the Rural-to-Urban transect approach to smart growth, the County's land use policies are grouped for ease of reference into "Natural Lands", "Agriculture and Open Space", "Rural Interface", "Community Districts", and "Urban Fringe". An additional section has been added to address procedural requirements and review criteria for any new community or new city proposals. Previously existing Land Use policies have been organized into the five environment categories. County land use policies will continue to direct urban growth to the four incorporated cities in "Urban Fringe" areas, restrict growth to pre-existing urban land use pockets of "Rural Interface" areas, provide policies for new communities through specific plan/new community procedures, and guide sustainable community growth in "Community Districts" through a detailed individual Community Plan for each area. Minor land use changes are proposed to resolve the General Plan consistency with the County's Zoning Ordinance. Community Plan areas represent the most substantial land use changes, and are the only areas with expanded urban growth in the County unincorporated areas to accommodate future urban growth. Land use and planned urban growth are addressed in greater detail in each of the four community plans.

2. Resource Conservation Element -

The Resource Conservation Element has been updated with more informative discussion and policy guidance on valued resources within the County. Policy sections include Water, Natural Lands, Agriculture, Prime Soils, Native Plant & Animal Habitat, Threatened & Endangered Species, Fishing, Energy, Mineral, and Archeological/Cultural/Historical resources. A new Biological Resources Survey is included that substantially updates the County's previous 1993 Biological Resources Survey, and provides up to date regulatory requirements and species

habitat information. An Agricultural Land Conversion Study was also prepared to analyze the County's loss of prime agricultural land and explore options for mitigating the loss of agricultural land resources. Policy changes in this element primarily consist of guiding policies to address existing and projected conditions for each of the resources identified above. Policies addressing agricultural mitigation represent the most significant change which seeks to enhance preservation of the County's valued agricultural resources.

3. Open Space Element -

The Open Space Element has been updated to bring additional information and guiding policies for the preservation of agriculture, scenic resources, outdoor recreation, and open space buffers around communities and the Naval Air Station, Lemoore.

4. Circulation Element -

The Circulation Element has been updated with existing and projected traffic counts and levels of service. Additional information has been added to provide more detailed information on transportation options and connectivity throughout the County. Substantial changes in policy direction involve stronger emphasis on integrating traffic calming measures and pedestrian and bicycle infrastructure in Community District areas that could greatly benefit from alternative transportation modes. Traffic calming measures and pedestrian street designs are addressed in more detail within each of the community plans. The growing importance of the County's vanpool options are also highlighted as a program that is making substantial reductions to vehicle miles traveled and air emissions.

5. Health & Safety Element -

The previous Safety Element has now been integrated with public health issues that are associated with the built environment. This element now referred to as the "Health & Safety Element" includes updated information on natural and man made hazards, while also integrating public health and protection of County residents. Planning efforts on this element were joined with the County's Emergency Operations Command to develop a "Kings County Natural Hazards Mitigation Plan" and integrate the plan's recommendations into this element. Coordination with the County's Public Health Department and other regional and statewide efforts to address resident health such as obesity and diabetes through modifications in the built environment, and personal property safety through protection efforts. Many of these issues are addressed in greater detail in each community plan. New updated Naval Air Station, Lemoore operational information has also been recently released and taken into consideration in this element along with Land Use and Noise.

6. Noise Element -

The Noise Element has been updated with current noise surveys and update policies to address changes in mobile and stationary noise sources within the County. The only significant change in excessive noise relates to new noise contours developed by the Naval Air Station, Lemoore. In response, new policies will restrict new residential development in excessive aircraft noise corridors and require mitigation for structures in moderately excessive aircraft noise areas.

7. Air Quality Element -

The County's first ever Air Quality Element attempts to establish a baseline of green house gas emissions within the County, and define a coordinated link between the County's planning efforts, regional Blueprint planning efforts, and the broader statewide green house gas reduction efforts. This element is envisioned to work in conjunction with the land use, circulation and regional Blueprint transportation and urban growth direction planning to infuse sustainable community strategies, reduce urban sprawl, and reduce overall green house gas emissions. Air

Quality Element policies reinforce the County's land use, circulation, and resource conservation policies which aim to preserve agricultural land, direct urban growth to Cities and Community Districts, and establish transportation alternatives that reduce vehicle miles traveled.

8. Community Plans -

The four unincorporated communities of Armona, Home Garden, Kettleman City, and Stratford make up the County's only urbanized community areas that are served by special districts. These four community areas represent planning areas under the Armona Community Plan, Home Garden Community Plan, Kettleman City Community Plan, and Stratford Community Plan. These community plan areas will accommodate the County's unincorporated urban growth, as growth within "City Fringe" areas continues to be directed to the respective City, and "Rural Interface" areas remain restricted with no new urban growth designations.

The primary focus of each community plan is to integrate smart growth principles into community revitalization efforts that aim to create or strengthen a centralized community core. New "Mixed Use" land use designations are integrated along with prioritization of centralized services and pedestrian connectivity in each community core. Compact residential growth and infill development are also strong themes within each plan with detailed evaluation of needed services and infrastructure improvements. Sustainable community strategies are also built in to improve community identity, increase job growth, and leverage the newly adopted Enterprise Zone that now includes all four communities. Future areas of community growth expansion are defined in each plan to ensure that compact, centralized growth occurs in a phased and balanced manner and prevents the untimely conversion of prime agricultural lands.

II. PROPOSED PROJECT ALTERNATIVES

Pursuant to State CEQA Guidelines Section 15126(f) and 15126.6, the environmental review process will include an analysis of a reasonable range of alternatives, as well as the "no project" alternative. Alternatives to the project that are expected to by analyzed in the EIR include but are not limited to:

A. <u>No Project Alternative:</u> This alternative will analyze the affects of taking no action. Under this alternative, development in the County would occur as currently allowed under the 1993 General Plan. Analysis of this alternative is based on build-out of the existing General Plan.

B. <u>Reduced Community Growth Alternative:</u> Kings County's General Plan Update incorporated an Urban Reserve Designation (UR) that is utilized as an overlay designation, primarily in agriculturally designated areas, identified for future residential, commercial, and mixed use urban development. This alternative would remove 444 acres of land designated as Urban Reserve from the Stratford and Armona communities and would also remove phase C-1 and C-2 from development in Kettleman City on the east side of Highway 41.

C. <u>Unrestricted Urban Growth Alternative:</u> The 2035 Kings County General Plan preserves County policy to direct urban development to the cities or unincorporated communities of the County. This alternative would eliminate growth restraints and analyze the resulting affects of meeting residential and commercial market demand. This alternative would also allow rural interface development to expand, rural growth in the urban fringe would not be directed to cities for annexation, and new Urban Reserve designations outside of existing urban fringe or community districts would be created.

III. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

✓	Aesthetics	✓	Agricultural Resources	✓	Air Quality
✓	Biological Resources	✓	Cultural Resources	✓	Geology/Soils
✓	Hazards & Hazardous	✓	Hydrology/Water Quality	✓	Land Use/Planning
✓	Mineral Resources	✓	Noise	✓	Population/Housing
✓	Public Services	✓	Recreation	✓	Transportation/Traffic
✓	Utilities/Service Systems	✓	Mandatory Findings of Significance		

DETERMINATION:

On the basis of this initial evaluation:

X I find that the proposed project may have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

William R Zumwalt — November 26, 2008

Signature — Date

William R Zumwalt — Kings County Community Development Agency

Printed Name — For

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to project like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).
5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
   a) Earlier Analysis Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effect from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on earlier analysis.
   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans. zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9) The explanation of each issue should identify:
   a) the significance criteria or threshold, if any, used to evaluate each question; and
   b) the mitigation measure identified, if any, to reduce the impact to less than significance

I. **AESTHETICS** - Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	X			
b) Substantially damage scenic resources, including, but not limited to, trees rock outcroppings, and historic buildings within a state scenic highway?				X
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	X			
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	X			

Substantiation for Sections I. a., b., c., and d.:
Kings County contains many scenic views including riparian corridors, Valley Oak groves, and mountain and open space areas which may be impacted by urban development designated by the 2035 Kings County General Plan. Kings County does not contain any County or State designated scenic highways and the General Plan does not recommend adoption of new scenic highways. The General Plan could have a potentially significant impact on aesthetics unless mitigated resulting from the type or location of development on land designated for urban use. As a result, aesthetics will be addressed through preparation of the EIR.

II. **AGRICULTURAL RESOURCES** - Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
(Note: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the *California Agricultural Land Evaluation and Site Assessment Model* (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland.)				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	X			
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	X			
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural use?	X			

Substantiation for Sections II. a., b., and c.:
Kings County, nestled in the southern half of the fertile San Joaquin Valley, is a predominantly agricultural based County that ranks 11th (2006) in the State for agricultural product value. During 2007, Kings County produced a gross value of $1,761,852,000 in agricultural crops and products, which represented a 36.7% increase from the 2006 value. A vast amount of the 1,392 square miles within the County are devoted to agricultural production, with approximately 678,000 acres (90%) of the 749,000 acres of eligible agricultural land under either Williamson Act or Farmland Security Zone contracts. The project would have a potentially significant impact on these agricultural resources; therefore, the EIR will evaluate potential impacts to this resource.

III. **AIR QUALITY** - Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable	X			

air quality plan?				
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	X			
c) Result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	X			
d) Expose sensitive receptors to substantial pollutant concentrations?	X			
e) Create objectionable odors affecting a substantial number of people?	X			

Substantiation for Sections III. a., b., c., d., and e.:
Kings County is located within the San Joaquin Valley Air Basin (SJVAB) whose state air quality oversight is governed by the San Joaquin Valley Air Pollution Control District (SJVAPCD). Regional and local air quality is impacted by topography, dominant airflows, atmospheric inversions, location, and season. The combination of topography and inversion layers generally prevents dispersion of air pollutants.

Kings County exceeds the federal annual PM2.5 standard but does not exceed the federal 24 hour PM2.5 standard. Kings County occasionally exceeds the federal 8 hour ozone standard which was exceeded 20 days in 2007 at the Hanford air monitoring station. The EPA recently announced that it had finalized approval of the SJVAPCD's request for re-designation to attainment of the federal PM10 standard. No official exceedances of the PM10 standard had been recorded anywhere in the San Joaquin Valley Air Basin (SJVAB) since 2003, which includes Kings County.

Kings County's 2035 General Plan could increase pollutant emissions and greenhouse gas emissions from the types of development it would allow, including commercial, residential, industrial, and agricultural related uses, as well as from the amount of traffic that would be expected to occur from build-out of the General Plan. The EIR will evaluate the potentially significant impacts resulting from the General Plan implementation.

IV. <u>BIOLOGICAL RESOURCES</u> - Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations or by the California Dept. of Fish & Game or U.S. Fish & Wildlife Service?	X			
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Dept. of Fish& Game or US Fish & Wildlife Service?	X			
c) Have a substantial adverse effect on federally protected Wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	X			
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	X			
e) Conflict with any local policies or ordinances protecting	X			

biological resources, such as a tree preservation policy or ordinance?				
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat Conservation plan?	X			

Substantiation for Sections IV. a., b., c., d., e., and f.:
Kings County contains a wide variety of native plant communities, sensitive habitats, and other important wildlife habitats due to the size of the county and its diverse geographic, topographic, and hydrological features. The county encompasses riparian habitat (along the Kings River, Cross Creek, the Kern River channel, and several lesser streams), freshwater marsh, seasonal wetlands, and periodically flooded areas at the southern end of the Tulare Lake Basin, grasslands in the Kettleman Hills and along Cross Creek, oak and conifer forests in the Kreyenhagen Hills, alkali scrub near Guernsey and Lemoore, and desert scrub on the margins of the Tulare Lake Basin and in the hills west of the California Aqueduct. Kings County contains eighteen (18) threatened or endangered wildlife species and two plant species that have been recorded in the county and may be found in the California Natural Diversity Database. These species are listed below.

Mammals
Fresno Kangaroo Rat, Giant Kangaroo Rat, Nelson's Antelope Squirrel, San Joaquin Kit Fox, Tipton Kangaroo Rat
Birds
California Condor*, Golden Eagle, Swainson's Hawk, Western Snowy Plover
Fish
Delta Smelt*
Reptiles
Blunt-nosed leopard Lizard, Giant Garter Snake*
Amphibians
California Tiger Salamander, California Red-legged Frog
Arthropods
Conservancy Fairy Shrimp***,** Valley Elderberry Longhorn Beetle, Vernal Pool Fairy Shrimp, Vernal Pool Tadpole Shrimp
Plants
California Jewel-flower, san Joaquin Woolythreads

*-These species are noted by the USFWS on their sensitive species lists, but they do not occur in Kings County.

A Habitat Conservation Plan for Kings County or this region does not exist; therefore, the EIR will utilize biological resources information found in the Biological Resources Survey prepared as a background study for the Kings County 2035 General Plan's Resource Conservation Element. Potentially significant impacts may occur through implementation of the General Plan which will require additional analysis in the EIR.

V. CULTURAL RESOURCES - Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	X			
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section15064.5?	X			
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	X			
d) Disturb any human remains, including those interred outside of formal cemeteries?	X			

Substantiation for Sections V. a., b., c., and d.:
Kings County is the home of the Tachi tribe of the Yokuts who lived north of Tulare Lake and westward to the hills near Coalinga. The lake region contains numerous archaeological artifacts along the Tulare lakeshores margins and a significant archaeological site called the Witt site in southern Kings County (near Dudley Ridge). Numerous other recorded cultural resource sites have been identified in Kings County in the area of Stratford, the area south and west of Lemoore, and in the area surrounding Alpaugh in southeastern Kings County. Kings County also contains four sites that are listed on the National Register of Historic Places, and three additional sites that have been designated as California Historical Landmarks. The sites include a Taoist Temple, County Courthouse, Carnegie Library, and the Witt archaeological site. The three California Historical Landmarks include the Mussel Slough Tragedy site south of Hardwick; the Kingston Town site north of Hardwick; and the El Adobe de los Robles Rancho west of Lemoore. Thirteen historic sites of local importance are also found in Kings County. The type and location of development allowed under the Kings County 2035 General Plan could have a potentially significant impact on these cultural resources unless the impacts are mitigated. As a result, these topics will be addressed in the EIR.

VI. GEOLOGY AND SOILS - Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines & Geology Special Publication 42.)	X			
ii) Strong seismic ground shaking?	X			
iii) Seismic-related ground failure, including liquefaction?	X			
iv) Landslides?	X			
b) Result in substantial soil erosion or the loss of topsoil?	X			
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	X			
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1997), creating substantial risks to life or property?	X			
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	X			

Substantiation for Sections VI. a., b., c., d., and e.:
Kings County is located on a broad alluvial plain lying between the Sierra Nevada foothills and the Coastal Range. The County contains four seismic zones in the valley referenced as V_1, V_2, V_3, V_4 and two seismic zones in the Coastal Range referenced as C_1, and C_2. Amplification of shaking is reduced by the damping effect of the thick sedimentary section located throughout most of the County, but the Counties close proximity to the San Andreas fault zone results in the expectation of moderately high shaking characteristics. Kings County does not contain a major fault system, although, the San Andreas Fault is located approximately four miles west of the Kings County line and poses the greatest potential for geologic disaster in Kings County. Moderate to moderately high ground shaking has occurred from earthquakes, primarily the San Andreas Fault, and will continue to occur periodically in the County. Portions of Kings County are also potentially subject to landslides, subsidence, liquefaction, and expansive soils. The Kings County 2035 General Plan will require all new development to comply with the current

California Building Code Standards for earthquake safety. However, due to the potentially significant impacts related to geology and soils, this topic will be addressed in the EIR.

VII. HAZARDS AND HAZARDOUS MATERIALS - Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	X			
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	X			
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	X			
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	X			
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	X			
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	X			
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	X			
h) Expose people or structures to a significant risk or loss injury or death involving wildland fires, including where, wildlands area adjacent to urbanized areas or where residences are intermixed with wildlands?	X			

Substantiation for Sections VII. a., b., c., d., e., f., g., and h.:

The Kings County 2035 General Plan implementation is not anticipated to create significant environmental impacts related to the release of or exposure to hazardous materials or waste. Transportation of hazardous materials is highly regulated by local, state, and federal regulations and general plan implementation will not alter or affect those regulations. The EIR will analyze potential impacts related to school sites, and will also focus on current special sites of concern as determined through findings based on review of regulatory databases and regulatory agency files. Kings County contains one municipal airport, one public airport, one military instillation, and 19 personal or corporate airstrips used primarily in the agricultural industry. The EIR will evaluate the safety hazards related to land use designations around airports. Wildland fires are a minimal risk in the valley portions of Kings County where a majority of the land us under intensive agricultural use. The Coalinga Hills in the western portion of the County primarily represents the only area where wildland fire may cause a special hazard situation. Due to the lack of timber fuel and the abundance of grasses and invasive weeds in the Kettleman Hills, wildland fire hazards are common but with minimal destruction to property. The EIR will address wildland fire potential.

VIII. HYDROLOGY AND WATER QUALITY - Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	X			
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted.)?	X			
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	X			
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	X			
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	X			
f) Otherwise substantially degrade water quality?	X			
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	X			
h) Place housing within a 100-year flood hazard area structures which would impede or redirect flood flows?	X			
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	X			
j) Inundation by seiche, tsunami, or mudflow?	X			

Substantiation for Sections VIII. a., b., c., d., e., f., g., h., i., and j.:
The Federal Emergency Management Agency (FEMA) has updated the County's Flood Insurance Rate Maps with a new 2008 Digital Flood Insurance Rate Map (DFIRM) that defines areas subject to 1% chance occurrence (100 year) and 500 year floods. Kings Counties identified high risk 100-year flood zones were increased by approximately 148,000 acres. A vast majority of the land designated as the 100-year flood zone is located in the unincorporated land of the County and was not designated for urban use in the Kings County 2035 General Plan, although the potential still exists for the plan to expose people or structures to flooding, alter the amount and quality of groundwater supplies, create changes to waterway drainage patterns, or increase impervious surfaces. The EIR will analyze these impacts in addition to inundation by seiche, tsunami, or mudflow potential.

IX. LAND USE AND PLANNING - Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Physically divide an established community?	X			

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	X			
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	X			

Substantiation for Sections IX. a., b., and c.:
The Kings County 2035 General Plan contains individual community plans for the four unincorporated communities. These community plans are designed to enhance the community's sustainability and are anticipated to protect the existing communities. The Kings County 2035 General Plan is also expected to be consistent with the San Joaquin eight County Regional Blueprint, and the Joint Land Use Document prepared by the County, Naval Air Station Lemoore, and the City of Lemoore. The EIR will evaluate the anticipated impacts to land use and planning.

X. MINERAL RESOURCES - Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	X			
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	X			

Substantiation for Sections X. a. and b.:
Currently Kings County is monitoring three Surface Mining and Reclamation Act (SMARA) permits although all three mining operations are not active. Two agricultural reclamation projects that lowered the elevation of fields have been completed. The fields are under Williamson Act contracts and are now being monitored to ensure proper compliance of the contract is achieved. No further mining activities will occur on either permitted project. The third SMARA permit includes a gravel mining project that would have provided gravel to Cal-Trans Highway 41 expansion project. However, the mine has not been developed and future mining activities have been indefinitely suspended. Implementation of the Kings County 2035 General Plan does not anticipate impacts to existing mineral resources. The EIR will still analyze potential impacts to mineral resources.

XI. NOISE - Would the project result in:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	X			
b) Exposure of persons to or generations of excessive ground-borne vibration or ground-borne noise levels?	X			
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	X			
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	X			
e) For a project located within an airport land use plan or,	X			

where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	X			

Substantiation for Sections XI. a., b., c., d., e., and f.:
The Kings County 2035 General Plan contains policies that will minimize noise impacts within the County. Implementation of the General Plan and the associated development will most likely increase noise generating uses and vehicular traffic in addition to possibly locating noise sensitive land uses near an incompatible noise generating use. The EIR will analyze the compatibility of future land uses including land uses in the vicinity of airstrips.

XII. <u>POPULATION AND HOUSING</u> - Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by processing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure?	X			
b) Displace substantial numbers of existing housing necessitating the construction of replacement housing elsewhere?	X			
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	X			

Substantiation for Sections XII. a., b., and c.:
The Kings County 2035 General Plan seeks to maintain sustainable communities within the County. This approach includes ensuring appropriate residential land use designations are apportioned, throughout the four unincorporated communities, to achieve the Regional Housing Needs Allocation dwelling unit requirement. The General Plan has identified the population and housing growth that could be realized if build-out is achieved. The EIR will analyze the potential impacts for their environmental significance.

XIII. <u>PUBLIC SERVICES</u>	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i) Fire protection?	X			
ii) Police protection?	X			
iii) Schools?	X			
iv) Parks?	X			
v) Other public facilities?	X			

Substantiation for Sections XIII . a.:
Implementation of the Kings County 2035 General Plan will most likely result in potentially significant impacts to services providing for fire protection, police protection, schools, and parks. Service demands from most public facilities and services will most likely increase. The EIR will identify the existing public facilities and services and will determine what impacts will be associated with General Plan implementation.

XIV. RECREATION	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	X			
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have been an adverse physical effect on the environment?	X			

Substantiation for Sections XIV . a. and b.:
The County owns and maintains three parks for public use which are located in rural portions of the County. The Kings County 2035 General Plan implementation will most likely increase public demand for parks and recreation through adoption of additional residential land use designations that may increase the population. In addition, population growth in the four unincorporated communities will result in demand for additional park facilities. Community Service Districts currently own and maintain all park facilities in the communities. The General Plan contains policies that will generate funding for the construction and maintenance of new park facilities in those communities. The EIR will include an inventory of existing park facilities and open space resources and provide an analysis to determine what impacts will occur to those resources.

XV. TRANSPORTATION/TRAFFIC - Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections.)?	X			
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	X			
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?			X	
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	X			
e) Result in inadequate emergency access?	X			
f) Result in inadequate parking capacity?	X			
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?			X	

Substantiation for Sections XV. a., b., c., d., e., f., and g.:
Proposed land use changes in the Kings County 2035 General Plan will create additional vehicle trips resulting in increased circulation demands. To accommodate future growth the General Plan has developed a functional street and highway system by evaluating the Level of Service (LOS) for most County owned streets and highways. LOS standards vary throughout the county and the four incorporated cities. The General Plan LOS threshold has identified that the "minimum" LOS standard within the county shall be no lower than LOS "D". The General Plan has also determined which streets and highways, or sections thereof, will fall below the accepted LOS threshold following implementation of the General Plan. The EIR will analyze impacts associated with increased circulation demands. The General Plan also contains numerous policies supporting alternative transportation programs within Kings County such as the Kings Area Rural Transit System, Agricultural Industry Transportation System, community car pooling, and the Kings County Regional Bike Plan.

XVI. UTILITIES AND SERVICE SYSTEMS - Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	X			
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	X			
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	X			
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	X			
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	X			
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	X			
g) Comply with federal, state, and local statutes and regulations related to solid waste?	X			

Substantiation for Sections XVI. a., b., c., d., e., f., and g.:
Kings County does not provide utility service to residents or businesses within Kings County, and the County does not own any utility service systems. All utility services within the four unincorporated communities are provided by either a community service district or a public utility district. Some of these districts have reached their service capacity in either potable water or wastewater and cannot provide service to new development until additional capacity is achieved. Policy direction in the General Plan require additional infrastructure for increased service capacity prior to development authorization. The EIR will analyze impacts to utility service systems in addition to analyzing the service capacity of the County's two permitted landfills to determine if the facilities contain adequate capacity to support the General Plan implementation.

XVII. MANDATORY FINDINGS OF SIGNIFICANCE	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or pre-history?	X			
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)?	X			
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	X			

Substantiation for Sections XVII. a., b., and c.:
The Kings County General Plan has the potential to significantly impact all sixteen impact areas identified under CEQA and may provide significant cumulative impacts on biological resources and human beings. The EIR will address these issues and any feasible mitigation measures will be identified to avoid and/or reduce any significant impacts.

2035 Kings County General Plan
Program EIR Scoping Meeting

Name	Organization	Phone #
Rob Fitzroy	Rincon Consultants	805-547-0900
CATHY CAIN	CITY OF HANFORD	(559) 585-2578
Roman V Benitez	NAS LEMOORE	559-998-2939
MELINDA LARSON	NAS LEMOORE	(559) 998-3393
MARY CAMERON	ATSMA CAMERON DAIRY	582-8137
Jeremy Kinney	Kings County	582-3211
Greg Gatzka	Kings County	582-3211
Bill Zemwalt	Kings County	582-3211

GOVERNOR'S OFFICE OF EMERGENCY SERVICES
DISASTER ASSISTANCE PROGRAMS BRANCH
3650 SCHRIEVER AVENUE
MATHER, CALIFORNIA 95655
PHONE: (916) 845-8101 FAX: (916) 845-8381

OES CALIFORNIA
Governor's Office of Emergency Services

November 5, 2008

RECEIVED
DEC 10 2008
KINGS COUNTY
PLANNING AGENCY

Greg Gatzka
Kings County Community Development
1400 W. Lacy Blvd., Building 6
Hanford, CA 93631

RE: Notice of Preparation for a Draft Environmental Impact Report for the 2035 Kings County General Plan, SCH# 2008121020

Dear Mr. Gatzka:

Thank you for the opportunity to comment on your Notice of Preparation for a Draft Environmental Impact Report (DEIR) for the county's general plan update. In preparing the general plan and accompanying DEIR, the county should examine the sections of state planning law that involve potential hazards the county may face. For your information, I have underlined specific sections of state planning law where identification and analysis of hazards are discussed (see Attachment A).

Prior to the release of the draft general plan or within the DEIR, county staff or your consultants should examine each of the requirements in state planning law and determine if there are hazard issues within the unincorporated communities which the general plan should address. A table in the DEIR (or general plan) which identifies these specific issues and where they are addressed in the general plan would be helpful in demonstrating the county has complied with these requirements. If the DEIR determines that state planning law requirements have not been met, it should recommend that these issues be addressed in the general plan as a mitigation measure.

We note that state planning law includes a requirement for consultations with state agencies in regard to information related to hazards. OES would be happy to share all available information at our disposal to facilitate the county's ability to comply with state planning and environmental laws.

If you have any questions about these comments, please contact Andrew Rush at (916) 845-8269 or andrew.rush@OES.ca.gov.

Sincerely,

Dennis Castrillo

Dennis Castrillo
Environmental Officer

cc: Office of Planning and Research

Attachment A
Hazards and State Planning Law Requirements

General Plan Consistency

65300.5. In construing the provisions of this article, the Legislature intends that the general plan and elements and parts thereof comprise an integrated, internally consistent and compatible statement of policies for the adopting agency.

Seven Mandated Elements

65302. The general plan shall consist of a statement of development policies and shall include a diagram or diagrams and text setting forth objectives, principles, standards, and plan proposals. The plan shall include the following elements:

(a) A land use element that designates the proposed general distribution and general location and extent of the uses of the land for housing, business, industry, open space, including agriculture, natural resources, recreation, and enjoyment of scenic beauty, education, public buildings and grounds, solid and liquid waste disposal facilities, and other categories of public and private uses of land. The location and designation of the extent of the uses of the land for public and private uses shall consider the identification of land and natural resources pursuant to paragraph (3) of subdivision (d). The land use element shall include a statement of the standards of population density and building intensity recommended for the various districts and other territory covered by the plan. The land use element shall identify and annually review those areas covered by the plan that are subject to flooding identified by flood plain mapping prepared by the Federal Emergency Management Agency (FEMA) or the Department of Water Resources. The land use element shall also do both of the following:

(1) Designate in a land use category that provides for timber production those parcels of real property zoned for timberland production pursuant to the California Timberland Productivity Act of 1982, Chapter 6.7 (commencing with Section 51100) of Part 1 of Division 1 of Title 5.

(2) Consider the impact of new growth on military readiness activities carried out on military bases, installations, and operating and training areas, when proposing zoning ordinances or designating land uses covered by the general plan for land, or other territory adjacent to military facilities, or underlying designated military aviation routes and airspace.

(A) In determining the impact of new growth on military readiness activities, information provided by military facilities shall be considered. Cities and counties shall address military impacts based on information from the military and other sources.

(B) The following definitions govern this paragraph:

(i) "Military readiness activities" mean all of the following:

(I) Training, support, and operations that prepare the men and women of the military for combat.

(II) Operation, maintenance, and security of any military installation.

(III) Testing of military equipment, vehicles, weapons, and sensors for proper operation or suitability for combat use.

(ii) "Military installation" means a base, camp, post, station, yard, center, homeport facility for any ship, or other activity under the jurisdiction of the United States Department of Defense as defined in paragraph (1) of subsection (e) of Section 2687 of Title 10 of the United States Code.

(b) A circulation element consisting of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, any military airports and ports, and other local public utilities and facilities, all correlated with the land use element of the plan.

(c) A housing element as provided in Article 10.6 (commencing with Section 65580).

(d) (1) A conservation element for the conservation, development, and utilization of natural resources including water and its hydraulic force, forests, soils, rivers and other waters, harbors, fisheries, wildlife, minerals, and other natural resources. The conservation element shall consider the effect of development within the jurisdiction, as described in the land use element, on natural resources located on public lands, including military installations. That portion of the conservation element including waters shall be developed in coordination with any countywide water agency and with all district and city agencies, including flood management, water conservation, or groundwater agencies that have developed, served, controlled, managed, or conserved water of any type for any purpose in the county or city for which the plan is prepared. Coordination shall include the discussion and evaluation of any water supply and demand information described in Section 65352.5, if that information has been submitted by the water agency to the city or county.

(2) The conservation element may also cover all of the following:

(A) The reclamation of land and waters.

(B) Prevention and control of the pollution of streams and other waters.

(C) Regulation of the use of land in stream channels and other areas required for the accomplishment of the conservation plan.

(D) Prevention, control, and correction of the erosion of soils, beaches, and shores.

(E) Protection of watersheds.

(F) The location, quantity and quality of the rock, sand and gravel resources.

(3) Upon the next revision of the housing element on or after January 1, 2009, the conservation element shall identify rivers, creeks, streams, flood corridors, riparian habitats, and land that may accommodate floodwater for purposes of groundwater recharge and stormwater management.

(e) An open-space element as provided in Article 10.5 (commencing with Section 65560).

(f) (1) A noise element which shall identify and appraise noise problems in the community. The noise element shall recognize the guidelines established by the Office of Noise Control in the State Department of Health Care Services and shall analyze and quantify, to the extent practicable, as determined by the legislative body, current and projected noise levels for all of the following sources:

(A) Highways and freeways.

(B) Primary arterials and major local streets.

(C) Passenger and freight on-line railroad operations and ground rapid transit systems.

(D) Commercial, general aviation, heliport, helistop, and military airport operations, aircraft overflights, jet engine test stands, and all other ground facilities and maintenance functions related to airport operation.

(E) Local industrial plants, including, but not limited to, railroad classification yards.

(F) Other ground stationary noise sources, including, but not limited to, military installations, identified by local agencies as contributing to the community noise environment.

(2) Noise contours shall be shown for all of these sources and stated in terms of community noise equivalent level (CNEL) or day-night average level (Ldn). The noise contours shall be prepared on the basis of noise monitoring or following generally accepted noise modeling techniques for the various sources identified in paragraphs (1) to (6), inclusive.

(3) The noise contours shall be used as a guide for establishing a pattern of land uses in the land use element that minimizes the exposure of community residents to excessive noise.

(4) The noise element shall include implementation measures and possible solutions that address existing and foreseeable noise problems, if any. The adopted noise element shall serve as a guideline for compliance with the state's noise insulation standards.

(g) (1) A safety element for the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides; subsidence, liquefaction, and other seismic hazards identified pursuant to Chapter 7.8 (commencing with Section 2690) of Division 2 of the Public Resources Code, and other geologic hazards known to the legislative body; flooding; and wild land and urban fires. The safety element shall include mapping of known seismic and other geologic hazards. It shall also address evacuation routes, military installations, peakload water supply requirements, and minimum road widths and clearances around structures, as those items relate to identified fire and geologic hazards.

(2) The safety element, upon the next revision of the housing element on or after January 1, 2009, shall also do the following:

(A) Identify information regarding flood hazards, including, but not limited to, the following:

(i) Flood hazard zones. As used in this subdivision, "flood hazard zone" means an area subject to flooding that is delineated as either a special hazard area or an area of moderate or minimal hazard on an official flood insurance rate map issued by the Federal Emergency Management Agency. The identification of a flood hazard zone does not imply that areas outside the flood hazard zones or uses permitted within flood hazard zones will be free from flooding or flood damage.

(ii) National Flood Insurance Program maps published by FEMA.

(iii) Information about flood hazards that is available from the United States Army Corps of Engineers.

(iv) Designated floodway maps that are available from the Central Valley Flood Protection Board.

(v) Dam failure inundation maps prepared pursuant to Section 8589.5 that are available from the Office of Emergency Services.

(vi) Awareness Floodplain Mapping Program maps and 200-year flood plain maps that are or may be available from, or accepted by, the Department of Water Resources.

(vii) Maps of levee protection zones.

(viii) Areas subject to inundation in the event of the failure of project or nonproject levees or floodwalls.

(ix) Historical data on flooding, including locally prepared maps of areas that are subject to flooding, areas that are vulnerable to flooding after wildfires, and sites that have been repeatedly damaged by flooding.

(x) Existing and planned development in flood hazard zones, including structures, roads, utilities, and essential public facilities.

(xi) Local, state, and federal agencies with responsibility for flood protection, including special districts and local offices of emergency services.

(B) Establish a set of comprehensive goals, policies, and objectives based on the information identified pursuant to subparagraph (A), for the protection of the community from the unreasonable risks of flooding, including, but not limited to:

(i) Avoiding or minimizing the risks of flooding to new development.

(ii) Evaluating whether new development should be located in flood hazard zones, and identifying construction methods or other methods to minimize damage if new development is located in flood hazard zones.

(iii) Maintaining the structural and operational integrity of essential public facilities during flooding.

(iv) Locating, when feasible, new essential public facilities outside of flood hazard zones, including hospitals and health care facilities, emergency shelters, fire stations, emergency command centers, and emergency communications facilities or identifying construction methods or other methods to minimize damage if these facilities are located in flood hazard zones.

(v) Establishing cooperative working relationships among public agencies with responsibility for flood protection.

(C) Establish a set of feasible implementation measures designed to carry out the goals, policies, and objectives established pursuant to subparagraph (B).

(3) After the initial revision of the safety element pursuant to paragraph (2), upon each revision of the housing element, the planning agency shall review and, if necessary, revise the safety element to identify new information that was not available during the previous revision of the safety element.

(4) Cities and counties that have flood plain management ordinances that have been approved by FEMA that substantially comply with this section, or have substantially equivalent provisions to this subdivision in their general plans, may use that information in the safety element to comply with this subdivision, and shall summarize and incorporate by reference into the safety element the other general plan provisions or the flood plain ordinance, specifically showing how each requirement of this subdivision has been met.

(5) Prior to the periodic review of its general plan and prior to preparing or revising its safety element, each city and county shall consult the California Geological Survey of the Department of Conservation, the Central Valley Flood Protection Board, if the city or county is located within the boundaries of the Sacramento and San Joaquin Drainage District, as set forth in Section 8501 of the Water Code, and the Office of Emergency Services for the purpose of including information known by and available to the department, the office, and the board required by this subdivision.

(6) To the extent that a county's safety element is sufficiently detailed and contains appropriate policies and programs for adoption by a city, a city may adopt that portion of the county's safety element that pertains to the city's planning area in satisfaction of the requirement imposed by this subdivision.

Consistency with Airport Land Use Plans

65302.3. (a) The general plan, and any applicable specific plan prepared pursuant to Article 8 (commencing with Section 65450), shall be consistent with the plan adopted or amended pursuant to Section 21675 of the Public Utilities Code.

Review of Safety Element

65302.5. (a) At least 45 days prior to adoption or amendment of the safety element, each county and city shall submit to the Division of Mines and Geology of the Department of Conservation one copy of a draft of the safety element or amendment and any technical studies used for

developing the safety element. The division may review drafts submitted to it to determine whether they incorporate known seismic and other geologic hazard information, and report its findings to the planning agency within 30 days of receipt of the draft of the safety element or amendment pursuant to this subdivision. The legislative body shall consider the division's findings prior to final adoption of the safety element or amendment unless the division's findings are not available within the above prescribed time limits or unless the division has indicated to the city or county that the division will not review the safety element. If the division's findings are not available within those prescribed time limits, the legislative body may take the division's findings into consideration at the time it considers future amendments to the safety element. Each county and city shall provide the division with a copy of its adopted safety element or amendments. The division may review adopted safety elements or amendments and report its findings. All findings made by the division shall be advisory to the planning agency and legislative body.

(1) The draft element of or draft amendment to the safety element of a county or a city's general plan shall be submitted to the State Board of Forestry and Fire Protection and to every local agency that provides fire protection to territory in the city or county at least 90 days prior to either of the following:

(A) The adoption or amendment to the safety element of its general plan for each county that contains state responsibility areas.

(B) The adoption or amendment to the safety element of its general plan for each city or county that contains a very high fire hazard severity zone as defined pursuant to subdivision (b) of Section 51177.

(2) A county that contains state responsibility areas and a city or county that contains a very high fire hazard severity zone as defined pursuant to subdivision (b) of Section 51177, shall submit for review the safety element of its general plan to the State Board of Forestry and Fire Protection and to every local agency that provides fire protection to territory in the city or county in accordance with the following dates as specified, unless the local government submitted the element within five years prior to that date:

(A) Local governments within the regional jurisdiction of the San Diego Association of Governments: December 31, 2010.

(B) Local governments within the regional jurisdiction of the Southern California Association of Governments: December 31, 2011.

(C) Local governments within the regional jurisdiction of the Association of Bay Area Governments: December 31, 2012.

(D) Local governments within the regional jurisdiction of the Council of Fresno County Governments, the Kern County Council of Governments, and the Sacramento Area Council of Governments: June 30, 2013.

(E) Local governments within the regional jurisdiction of the Association of Monterey Bay Area Governments: December 31, 2014.

(F) All other local governments: December 31, 2015.

(3) The State Board of Forestry and Fire Protection shall, and a local agency may, review the draft or an existing safety element and report its written recommendations to the planning agency within 60 days of its receipt of the draft or existing safety element. The State Board of Forestry and Fire Protection and local agency shall review the draft or existing safety element and may offer written recommendations for changes to the draft or existing safety element regarding both of the following:

(A) Uses of land and policies in state responsibility areas and very high fire hazard severity zones that will protect life, property, and natural resources from unreasonable risks associated with wildland fires.
(B) Methods and strategies for wildland fire risk reduction and prevention within state responsibility areas and very high hazard severity zones.
(b) Prior to the adoption of its draft element or draft amendment, the board of supervisors of the county or the city council of a city shall consider the recommendations made by the State Board of Forestry and Fire Protection and any local agency that provides fire protection to territory in the city or county. If the board of supervisors or city council determines not to accept all or some of the recommendations, if any, made by the State Board of Forestry and Fire Protection or local agency, the board of supervisors or city council shall communicate in writing to the State Board of Forestry and Fire Protection or to the local agency, its reasons for not accepting the recommendations.

Open Space Plans

65560. (a) "Local open-space plan" is the open-space element of a county or city general plan adopted by the board or council, either as the local open-space plan or as the interim local open-space plan adopted pursuant to Section 65563.
(b) "Open-space land" is any parcel or area of land or water that is essentially unimproved and devoted to an open-space use as defined in this section, and that is designated on a local, regional or state open-space plan as any of the following:
(1) Open space for the preservation of natural resources including, but not limited to, areas required for the preservation of plant and animal life, including habitat for fish and wildlife species; areas required for ecologic and other scientific study purposes; rivers, streams, bays and estuaries; and coastal beaches, lakeshores, banks of rivers and streams, and watershed lands.
(2) Open space used for the managed production of resources, including but not limited to, forest lands, rangeland, agricultural lands and areas of economic importance for the production of food or fiber; areas required for recharge of groundwater basins; bays, estuaries, marshes, rivers and streams which are important for the management of commercial fisheries; and areas containing major mineral deposits, including those in short supply.
(3) Open space for outdoor recreation, including but not limited to, areas of outstanding scenic, historic and cultural value; areas particularly suited for park and recreation purposes, including access to lakeshores, beaches, and rivers and streams; and areas which serve as links between major recreation and open-space reservations, including utility easements, banks of rivers and streams, trails, and scenic highway corridors.
(4) Open space for public health and safety, including, but not limited to, areas which require special management or regulation because of hazardous or special conditions such as earthquake fault zones, unstable soil areas, flood plains, watersheds, areas presenting high fire risks, areas required for the protection of water quality and water reservoirs and areas required for the protection and enhancement of air quality.

STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

ARNOLD SCHWARZENEGGER
GOVERNOR

CYNTHIA BRYANT
DIRECTOR

Notice of Preparation

RECEIVED
DEC - 8 2008
KINGS COUNTY
PLANNING AGENCY

December 3, 2008

To: Reviewing Agencies

Re: 2035 Kings County General Plan
SCH# 2008121020

Attached for your review and comment is the Notice of Preparation (NOP) for the 2035 Kings County General Plan draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Greg Gatzka
Kings County Community Development
1400 W. Lacey Boulevard Building 6
Hanford, CA 93631

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Assistant Deputy Director & Senior Planner, State Clearinghouse

Attachments
cc: Lead Agency

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

NOP Distribution List

County: Mrg>

SCH# 2008121020

Resources Agency

- [x] **Resources Agency**
  Nadell Gayou
- [ ] **Dept. of Boating & Waterways**
  David Johnson
- [ ] **California Coastal Commission**
  Elizabeth A. Fuchs
- [ ] **Colorado River Board**
  Gerald R. Zimmerman
- [x] **Dept. of Conservation**
  Sharon Howell
- [ ] **California Energy Commission**
  Dale Edwards
- [x] **Cal Fire**
  Allen Robertson
- [x] **Office of Historic Preservation**
  Wayne Donaldson
- [x] **Dept of Parks & Recreation**
  Environmental Stewardship Section
- [ ] **Central Valley Flood Protection Board**
  Mark Herald
- [ ] **S.F. Bay Conservation & Dev't. Comm.**
  Steve McAdam
- [x] **Dept. of Water Resources**
  Resources Agency
  Nadell Gayou
- [ ] _____
  Conservancy

Fish and Game

- [ ] **Depart. of Fish & Game**
  Scott Flint
  Environmental Services Division
- [ ] **Fish & Game Region 1**
  Donald Koch
- [ ] **Fish & Game Region 1E**
  Laurie Harnsberger
- [ ] **Fish & Game Region 2**
  Jeff Drongesen
- [ ] **Fish & Game Region 3**
  Robert Floerke
- [x] **Fish & Game Region 4**
  Julie Vance
- [ ] **Fish & Game Region 5**
  Don Chadwick
  Habitat Conservation Program
- [ ] **Fish & Game Region 6**
  Gabrina Gatchel
  Habitat Conservation Program
- [ ] **Fish & Game Region 6 I/M**
  Gabrina Getchel
  Inyo/Mono, Habitat Conservation Program
- [ ] **Dept. of Fish & Game M**
  George Isaac
  Marine Region

Other Departments

- [ ] **Food & Agriculture**
  Steve Shaffer
  Dept. of Food and Agriculture
- [ ] **Depart. of General Services**
  Public School Construction
- [ ] **Dept. of General Services**
  Anna Garbeff
  Environmental Services Section
- [ ] **Dept. of Public Health**
  Veronica Malloy
  Dept. of Health/Drinking Water

Independent Commissions,Boards

- [ ] **Delta Protection Commission**
  Debby Eddy
- [x] **Office of Emergency Services**
  Dennis Castrillo
- [ ] **Governor's Office of Planning & Research**
  State Clearinghouse
- [x] **Native American Heritage Comm.**
  Debbie Treadway
- [ ] **Public Utilities Commission**
  Ken Lewis
- [ ] **Santa Monica Bay Restoration**
  Guangyu Wang
- [ ] **State Lands Commission**
  Marina Brand
- [ ] **Tahoe Regional Planning Agency (TRPA)**
  Cherry Jacques

Business, Trans & Housing

- [x] **Caltrans - Division of Aeronautics**
  Sandy Hesnard
- [ ] **Caltrans - Planning**
  Terri Pencovic
- [x] **California Highway Patrol**
  Shirley Kelly
  Office of Special Projects
- [x] **Housing & Community Development**
  CEQA Coordinator
  Housing Policy Division

Dept. of Transportation

- [ ] **Caltrans, District 1**
  Rex Jackman
- [ ] **Caltrans, District 2**
  Marcelino Gonzalez
- [ ] **Caltrans, District 3**
  Bruce de Terra
- [ ] **Caltrans, District 4**
  Lisa Carboni
- [ ] **Caltrans, District 5**
  David Murray
- [x] **Caltrans, District 6**
  Michael Navarro
- [ ] **Caltrans, District 7**
  Elmer Alvarez
- [ ] **Caltrans, District 8**
  Dan Kopulsky
- [ ] **Caltrans, District 9**
  Gayle Rosander
- [ ] **Caltrans, District 10**
  Tom Dumas
- [ ] **Caltrans, District 11**
  Jacob Armstrong
- [ ] **Caltrans, District 12**
  Ryan P. Chamberlain

Cal EPA

Air Resources Board

- [ ] Airport Projects
  Jim Lerner
- [x] Transportation Projects
  Ravi Ramalingam
- [ ] Industrial Projects
  Mike Tollstrup
- [ ] **California Integrated Waste Management Board**
  Sue O'Leary
- [ ] **State Water Resources Control Board**
  Regional Programs Unit
  Division of Financial Assistance
- [ ] **State Water Resources Control Board**
  Student Intern, 401 Water Quality Certification Unit
  Division of Water Quality
- [ ] **State Water Resouces Control Board**
  Steven Herrera
  Division of Water Rights
- [x] **Dept. of Toxic Substances Control**
  CEQA Tracking Center
- [ ] **Department of Pesticide Regulation**
  CEQA Coordinator

Regional Water Quality Control Board (RWQCB)

- [ ] **RWQCB 1**
  Cathleen Hudson
  North Coast Region (1)
- [ ] **RWQCB 2**
  Environmental Document Coordinator
  San Francisco Bay Region (2)
- [ ] **RWQCB 3**
  Central Coast Region (3)
- [ ] **RWQCB 4**
  Teresa Rodgers
  Los Angeles Region (4)
- [ ] **RWQCB 5S**
  Central Valley Region (5)
  - [x] **RWQCB 5F**
    Central Valley Region (5)
    Fresno Branch Office
  - [ ] **RWQCB 5R**
    Central Valley Region (5)
    Redding Branch Office
- [ ] **RWQCB 6**
  Lahontan Region (6)
  - [ ] **RWQCB 6V**
    Lahontan Region (6)
    Victorville Branch Office
- [ ] **RWQCB 7**
  Colorado River Basin Region (7)
- [ ] **RWQCB 8**
  Santa Ana Region (8)
- [ ] **RWQCB 9**
  San Diego Region (9)

- [ ] **Other** _____

Last Updated on 08/13/2008

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH # 2008121020

Project Title: Environmental Impact Report for the 2035 Kings County General Plan

Lead Agency: Kings County Community Development Agency
Contact Person: Greg Gatzka
Mailing Address: 1400 W. Lacey Blvd, Building 6
Phone: (559) 582-3211 ext. 2682
City: Hanford Zip: 93631 County: Kings

Project Location: County: Kings County City/Nearest Community: Entire County
Cross Streets: -NA- Zip Code: -NA-
Longitude/Latitude (degrees, minutes and seconds): ___° ___' ___" N / ___° ___' ___" W Total Acres: ___
Assessor's Parcel No.: -NA- Section: -NA- Twp.: -NA- Range: -NA- Base: -NA-
Within 2 Miles: State Hwy #: -NA- Waterways: -NA-
Airports: -NA- Railways: -NA- Schools: -NA-

Document Type:

CEQA: ☑ NOP ☐ Draft EIR
☐ Early Cons ☐ Supplement/Subsequent EIR
☐ Neg Dec (Prior SCH No.) ___
☐ Mit Neg Dec Other: ___

NEPA: ☐ NOI ☐ EA ☐ Draft EIS ☐ FONSI

Other: ☐ Joint Document ☐ Final Document ☐ Other: ___

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Local Action Type:

☑ General Plan Update ☐ Specific Plan ☐ Rezone ☐ Annexation
☐ General Plan Amendment ☐ Master Plan ☐ Prezone ☐ Redevelopment
☐ General Plan Element ☐ Planned Unit Development ☐ Use Permit ☐ Coastal Permit
☐ Community Plan ☐ Site Plan ☐ Land Division (Subdivision, etc.) ☐ Other: ___

Development Type:

☐ Residential: Units ___ Acres ___
☐ Office: Sq.ft. ___ Acres ___ Employees ___
☐ Commercial: Sq.ft. ___ Acres ___ Employees ___
☐ Industrial: Sq.ft. ___ Acres ___ Employees ___
☐ Educational: ___
☐ Recreational: ___
☐ Water Facilities: Type ___ MGD ___
☐ Transportation: Type ___
☐ Mining: Mineral ___
☐ Power: Type ___ MW ___
☐ Waste Treatment: Type ___ MGD ___
☐ Hazardous Waste: Type ___
☐ Other: ___

Project Issues Discussed in Document:

☑ Aesthetic/Visual
☑ Agricultural Land
☑ Air Quality
☑ Archeological/Historical
☑ Biological Resources
☐ Coastal Zone
☑ Drainage/Absorption
☑ Economic/Jobs
☑ Fiscal
☑ Flood Plain/Flooding
☑ Forest Land/Fire Hazard
☑ Geologic/Seismic
☑ Minerals
☑ Noise
☑ Population/Housing Balance
☑ Public Services/Facilities
☑ Recreation/Parks
☐ Schools/Universities
☐ Septic Systems
☑ Sewer Capacity
☑ Soil Erosion/Compaction/Grading
☑ Solid Waste
☑ Toxic/Hazardous
☑ Traffic/Circulation
☑ Vegetation
☑ Water Quality
☑ Water Supply/Groundwater
☑ Wetland/Riparian
☑ Growth Inducement
☑ Land Use
☑ Cumulative Effects
☐ Other: ___

Present Land Use/Zoning/General Plan Designation:

Project Description: *(please use a separate page if necessary)*
Comprehensive update to the Kings County General Plan including the Land Use, Resource Conservation, Open Space, Circulation, Health & Safety, Noise, and Air Quality Elements.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Document Details Report
State Clearinghouse Data Base

SCH# 2008121020
Project Title 2035 Kings County General Plan
Lead Agency Kings County

Type **NOP** Notice of Preparation

Description Comprehensive update to the Kings County General Plan including the Land Use, Resource Conservation, Open Space, Circulation, Health and Safety, Noise, and Air Quality Elements.

Lead Agency Contact

Name Greg Gatzka
Agency Kings County Community Development
Phone 559-582-3211 ext 2682 ***Fax***
email
Address 1400 W. Lacey Boulevard Building 6
City Hanford ***State*** CA ***Zip*** 93631

Project Location

County Kings
City
Region
Cross Streets County-wide
Lat / Long
Parcel No.
Township ***Range*** ***Section*** ***Base***

Proximity to:

Highways
Airports
Railways
Waterways
Schools
Land Use

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Economics/Jobs; Fiscal Impacts; Flood Plain/Flooding; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Growth Inducing; Landuse; Cumulative Effects

Reviewing Agencies Resources Agency; Department of Conservation; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Game, Region 4; Office of Emergency Services; Native American Heritage Commission; Caltrans, Division of Aeronautics; California Highway Patrol; Department of Housing and Community Development; Caltrans, District 6; Department of Toxic Substances Control; Regional Water Quality Control Bd., Region 5 (Fresno); Cal Fire; Air Resources Board, Transportation Projects

Date Received 12/03/2008 ***Start of Review*** 12/03/2008 ***End of Review*** 01/02/2009

STATE OF CALIFORNIA Arnold Schwarzenegger, Governor

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
Web Site www.nahc.ca.gov
e-mail: ds_nahc@pacbell.net

RECEIVED
DEC 29 2008
KINGS COUNTY
PLANNING AGENCY

December 26, 2008

Mr. Mr. Greg Gatzka, Project Planner
Kings County Community Development Department
1400 W. Lacey Boulevard, Building 6
Hanford, CA 93631

Re: SCH#2008121020; CEQA Notice of Preparation (NOP); draft Environmental Impact Report (DEIR) for the 2035 Kings County General Plan; Kings County, California

Dear Mr. Gatzka:

The Native American Heritage Commission (NAHC) is the state 'trustee agency' pursuant to Public Resources Code §21070 designated to protect California's Native American Cultural Resources. The California Environmental Quality Act (CEQA) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per the California Code of Regulations §15064.5(b)(c)(f) CEQA guidelines). Section 15382 of the 2007 CEQA Guidelines defines a significant impact on the environment as "a substantial, or potentially substantial, adverse change in any of physical conditions within an area affected by the proposed project, including ... objects of historic or aesthetic significance." In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE)', and if so, to mitigate that effect. To adequately assess the project-related impacts on historical resources, the Commission recommends the following action:

√ Contact the appropriate California Historic Resources Information Center (CHRIS) for possible 'recorded sites' in locations where the development will or might occur.. Contact information for the Information Center nearest you is available from the State Office of Historic Preservation (916/653-7278)/ http://www.ohp.parks.ca.gov. The record search will determine:

- If a part or the entire APE has been previously surveyed for cultural resources.
- If any known cultural resources have already been recorded in or adjacent to the APE.
- If the probability is low, moderate, or high that cultural resources are located in the APE.
- If a survey is required to determine whether previously unrecorded cultural resources are present.

√ If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.

- The final report containing site forms, site significance, and mitigation measurers should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for pubic disclosure.
- The final written report should be submitted within 3 months after work has been completed to the appropriate regional archaeological Information Center.

√ The Native American Heritage Commission (NAHC) performed:

  * A Sacred Lands File (SLF) search of the project 'area of potential effect (APE)': The results: No known Native American Cultural Resources were identified.; However the NAHC SLF is not exhaustive and local tribal contacts should be consulted from the attached list.

- The NAHC advises the use of Native American Monitors, also, when professionAL archaeologists or the equivalent are employed by project proponents, in order to ensure proper identification and care given cultural resources that may be discovered. The NAHC, FURTHER, recommends that contact be made with Native American Contacts on the attached list to get their input on potential IMPACT of the project (APE) on cultural resources.. In some cases, the existence of a Native American cultural resources may be known only to a local tribe(s) or Native American individuals or elders.

√ *Lack of surface evidence of archeological resources does not preclude their subsurface existence.*

- Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per California Environmental Quality Act (CEQA) §15064.5 (f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities.
- Again, a culturally-affiliated Native American tribe may be the only source of information about a Sacred Site/Native American cultural resource.

- Lead agencies should include in their mitigation plan provisions for the disposition of recovered artifacts, in consultation with culturally affiliated Native Americans.

√ Lead agencies should include provisions for discovery of Native American human remains or unmarked cemeteries in their mitigation plans.

* CEQA Guidelines, Section 15064.5(d) requires the lead agency to work with the Native Americans identified by this Commission if the initial Study identifies the presence or likely presence of Native American human remains within the APE. CEQA Guidelines provide for agreements with Native American, identified by the NAHC, to assure the appropriate and dignified treatment of Native American human remains and any associated grave liens.

√ Health and Safety Code §7050.5, Public Resources Code §5097.98 and Sec. §15064.5 (d) of the California Code of Regulations (CEQA Guidelines) mandate procedures to be followed, including that construction or excavation be stopped in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery until the county coroner or medical examiner can determine whether the remains are those of a Native American. . Note that §7052 of the Health & Safety Code states that disturbance of Native American cemeteries is a felony.

√ Lead agencies should consider avoidance, as defined in §15370 of the California Code of Regulations (CEQA Guidelines), when significant cultural resources are discovered during the course of project planning and implementation

Please feel free to contact me at (916) 653-6251 if you have any questions.

Sincerely,

Dave Singleton
Program Analyst

Attachment: List of Native American Contacts

Cc: State Clearinghouse

Native American Contacts
Kings County
December 26, 2008

Santa Rosa Rancheria
Clarence Atwell, Chairperson
P.O. Box 8 Tache
Lemoore , CA 93245 Tachi
(559) 924-1278 Yokut
(559) 924-3583 Fax

Table Mountain Rancheria
Lee Ann Walker Grant, Chairperson
P.O. Box 410 Yokuts
Friant , CA 93626-0177
(559) 822-2587
(559) 822-2693 FAX

Kings River Choinumni Farm Tribe
John Davis, Chairman
1064 Oxford Avenue Foothill Yokuts
Clovis , CA 93612-2211 Choinumni
559-324-9908

Santa Rosa Rancheria
Lalo Franco, Director - Cultural Deparment
P.O. Box 8 Yokuts
Lemoore , CA 93245 Tachi
(559) 924-1278

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH#2008121020; CEQA Notice of Preparation (NOP) for the 2035 Kings County General Plan draft Environmental Impact Report (DEIR); Kings County, California.

DEPARTMENT OF TRANSPORTATION
DIVISION OF AERONAUTICS – M.S.#40
1120 N STREET
P. O. BOX 942873
SACRAMENTO, CA 94273-0001
PHONE (916) 654-4959
FAX (916) 653-9531
TTY 711

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KINGS COUNTY
PLANNING AGENCY

December 29, 2008

Mr. Greg Gatzka
Kings County Community Development
1400 W. Lacey Boulevard, Building 6
Hanford, CA 93631

Dear Mr. Gatzka:

Kings County's Notice of Preparation of a Draft Environmental Impact Report for the 2035 Kings County General Plan; SCH# 2008121020

The California Department of Transportation (Caltrans), Division of Aeronautics (Division), reviewed the above-referenced document with respect to airport-related noise and safety impacts and regional aviation land use planning issues pursuant to the California Environmental Quality Act (CEQA). The Division has technical expertise in the areas of airport operations safety and airport land use compatibility. We are a funding agency for airport projects and we have permit authority for public-use and special-use airports and heliports.

The proposal is for an update to the Kings County General Plan. As discussed in the Notice of Preparation, Hanford Municipal Airport, Corcoran Airport, one military installation and several personal use airports are located within Kings County.

According to State law, California Public Utilities Code (PUC) Section 21676 *et seq.*, prior to the amendment of a general plan or specific plan, or the adoption or approval of a zoning ordinance or building regulation within the planning boundary established by the Kings County Airport Land Use Commission (ALUC), the local agency shall first refer the proposed action to the ALUC.

General plans and elements must clearly demonstrate intent to adhere to ALUC policies to ensure compliance with compatibility criteria. Direct conflicts between mapped land use designations in a general plan and the ALUC criteria must be eliminated. A general plan needs to include policies committing the county to adopt compatibility criteria essential to ensuring that such conflicts will be avoided. The general plan must acknowledge that until ALUC compatibility criteria are incorporated into the general plan, proposals within the airport influence area must be submitted to the ALUC for review. These provisions must be included in the general plan at a minimum for it to be considered consistent with the airport compatibility land use plan.

CEQA, Public Resources Code 21096, requires the California Airport Land Use Planning Handbook (Handbook) be utilized as a resource in the preparation of environmental documents for projects within airport land use compatibility plan boundaries or if such a plan has not been adopted, within two nautical miles of an airport. The Handbook provides a "General Plan Consistency Checklist" in Table 5A and a "Possible Airport Combining Zone Components" in

Table 5B. The Handbook is a resource that should be applied to all public use airports and is available on-line at http://www.dot.ca.gov/hq/planning/aeronaut/documents/ALUPHComplete-7-02rev.pdf.

Since communities vary greatly in size and character from urban to rural, the level of noise deemed acceptable in one community is not necessarily the same for another community. Federal and State regulations regarding aircraft noise do not establish mandatory criteria for evaluating the compatibility of proposed land use development around airports (with the exception of the 65 dB CNEL "worst case" threshold established in the State Noise Standards for the designated "noise problem" airports). For most airports in California, 65 dB CNEL is considered too high a noise level to be appropriate as a standard for land use compatibility planning. This is particularly the case for evaluating new development in the vicinity of the airport. The 60 dB CNEL, or even 55 dB CNEL, may be more suitable for new development around most airports.

The planned height of buildings, antennas, and other objects should be checked with respect to Federal Aviation Regulation (FAR) Part 77 criteria if development is close to the airport, particularly if situated within the runway approach corridors. General plans must include policies restricting the heights of structures to protect airport airspace. Additional information FAR Part 77 is available on-line at https://oeaaa.faa.gov/oeaaa/external/portal.jsp.

Education Code Section 17215 requires a school site investigation by the Division prior to acquisition of land for a proposed school site located within two miles of an airport runway. Our recommendations are submitted to the State Department of Education for use in determining acceptability of the site. This should be a consideration prior to designating residential uses in the vicinity of an airport. The Division's school site evaluation criterion is available on-line at http://www.dot.ca.gov/hq/planning/aeronaut/regulations.html.

Business and Professions Code Section 11010 and Civil Code Sections 1102.6, 1103.4, and 1353 address buyer notification requirements for lands around airports and are available on-line at http://www.leginfo.ca.gov/calaw.html. Any person who intends to offer subdivided lands, common interest developments and residential properties for sale or lease within an airport influence area is required to disclose that fact to the person buying the property.

Land use practices that attract or sustain hazardous wildlife populations on or near airports can significantly increase the potential for wildlife-aircraft collisions. The Federal Aviation Administration (FAA) recommends that landfills, wastewater treatment facilities, surface mining, wetlands and other uses that have the potential to attract wildlife, be restricted in the vicinity of an airport. FAA Advisory Circular (AC150/5200-33B) entitled "Hazardous Wildlife Attractants on or Near Airports" and AC 150/5200-34 entitled "Construction or Establishment of Landfills near Public Airports" address these issues. For further information, please refer to the FAA website http://wildlife-mitigation.tc.faa.gov/public_html/index.html.

Aviation plays a significant role in California's transportation system. This role includes the movement of people and goods within and beyond our state's network of over 250 airports.

Aviation contributes nearly 9 percent of both total state employment (1.7 million jobs) and total state output ($110.7 billion) annually. These benefits are discussed in the study "Aviation in California: Benefits to Our Economy and Way of Life" available on-line at http://www.dot.ca.gov/hq/planning/aeronaut/econstudy2003.html. Aviation improves mobility, generates tax revenue, saves lives through emergency response, medical and fire fighting services, annually transports air cargo valued at over $170 billion and generates over $14 billion in tourist dollars, which in turn improves our economy and quality of life.

The protection of airports from incompatible land use encroachment is vital to California's economic future. Although the need for compatible and safe land uses near airports is both a local and State issue, airport land use commissions and airport land use compatibility plans are key to protecting an airport and the people residing and working in the vicinity of an airport. Consideration given to the issue of compatible land uses in the vicinity of an airport should help to relieve future conflicts between airports and their neighbors.

These comments reflect the areas of concern to the Division with respect to airport-related noise and safety impacts and regional airport land use planning issues. We advise you to contact our Caltrans District 6 office concerning surface transportation issues.

Thank you for the opportunity to review and comment on this proposal. If you have any questions, please call me at (916) 654-5314.

Sincerely,

Sandy Hesnard

SANDY HESNARD
Aviation Environmental Specialist

c: State Clearinghouse

STATE OF CALIFORNIA

Arnold Schwarzenegger, *Governor*

PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

RECEIVED
DEC 31 2008
KINGS COUNTY
PLANNING AGENCY

December 30, 2008

Greg Gatzka
Kings County
Community Development Agency
1400 W. Lacey Blvd., Building 6
Hanford, CA 93631

Re: Notice of Preparation (NOP), Draft Environmental Impact Report (EIR)
2035 Kings County General Plan /SCH# 2008121020

Dear Mr. Gatzka:

As the state agency responsible for rail safety within California, the California Public Utilities Commission (CPUC or Commission) recommends that development projects proposed near rail corridors be planned with the safety of these corridors in mind. New developments and improvements to existing facilities may increase vehicular traffic volumes, not only on streets and at intersections, but also at at-grade highway-rail crossings. In addition, projects may increase pedestrian traffic at crossings, and elsewhere along rail corridor rights-of-way. Working with CPUC staff early in project planning will help project proponents, agency staff, and other reviewers to identify potential project impacts and appropriate mitigation measures, and thereby improve the safety of motorists, pedestrians, railroad personnel, and railroad passengers.

The Commission recommends that the County include consideration of potential project-related rail safety impacts and measures to reduce adverse impacts of the proposed project. The project's traffic impact study (TIS) is the mechanism by which to address these concerns since it will be the basis for the analysis within the Traffic/Circulation section of the DEIR.

In general, the major types of impacts to consider are collisions between trains and vehicles, and between trains and pedestrians. Changes in land use should not be allowed that would permit housing adjacent to existing rail yards. Similarly, where a need for grade-separated crossings is identified, new development should not be placed adjacent to at-grade highway rail crossings, within the footprint of land needed for future grade-separation structures.

General categories of measures to reduce potential adverse impacts on rail safety include:

- Installation of grade separations at crossings, i.e., physically separating roads and railroad track by constructing overpasses or underpasses
- Improvements to warning devices at existing highway-rail crossings
- Installation of additional warning signage
- Improvements to traffic signaling at intersections adjacent to crossings, e.g., traffic preemption
- Installation of median separation to prevent vehicles from driving around railroad crossing gates

- Where soundwalls, landscaping, buildings, etc. would be installed near crossings, maintaining the visibility of warning devices and approaching trains
- Prohibition of parking within 100 feet of crossings to improve the visibility of warning devices and approaching trains
- Installation of pedestrian-specific warning devices and channelization
- Installation of additional traffic lanes through the crossing to accommodate additional traffic
- Construction of pull-out lanes for buses and vehicles transporting hazardous materials
- Installation of vandal-resistant fencing or walls to limit the access of pedestrians onto the railroad right-of-way
- Elimination of driveways near crossings
- Increased enforcement of traffic laws at crossings
- Rail safety awareness programs to educate the public about the hazards of highway-rail grade crossings

CPUC also encourages localities to set up mechanisms whereby new developments pay a fair share of their impact costs to fund the above measures if not already in an existing Fee program by the County or a Regional Fee program.

Commission approval is required to modify an existing highway-rail crossing or to construct a new crossing.

Please forward the TIS scope, so we may have an opportunity to review the proposed analysis which will make our review more efficient and expedient for the project proponent. Should you have a planned scoping meeting for the traffic study, we would like to be notified along with other agencies affected or impacted by the proposed project.

Thank you for your consideration of these comments and we look forward to working with the County on this project. If you have any questions in this matter, please call me at (415) 713-0092 or email at ms2@cpuc.ca.gov.

Sincerely,

Moses Stites
Rail Corridor Safety Specialist
Consumer Protection and Safety Division
Rail Transit and Crossings Branch
515 L Street, Suite 1119
Sacramento, CA 95814

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

RECEIVED
DEC 31 2008
KINGS COUNTY
PLANNING AGENCY

December 30, 2008

County of Kings
Community Development Agency
Planning Division
1400 W. Lacey Blvd, Bldg 6
Hanford, CA 93230

Subject: Comments on Proposed Project

Project: Notice of Preparation & Notice of Scoping Meeting for the DEIR for 2035 Kings County General Plan

District Reference No: 20080803

To Whom It May Concern:

The San Joaquin Valley Unified Air Pollution Control District (District) has reviewed the NOP for the 2035 Kings County General Plan. The proposed plan will represent the County's latest comprehensive effort to bring the County general plan up to date and current with local and regional conditions, and State legislative changes. The District offers the following comments:

District Comments

1) The District recommends that any preliminary and final environmental review of the project's potential impact on air quality include the following:

   1a) A description of the regulatory environment and existing air quality conditions impacting the area. Information on the District's attainment status can be found on the District's web page: http://valleyair.org/aqinfo/attainment.htm

   1b) A description of the project, including a discussion of existing and post-project emissions. The discussion should include emissions from short-term activities such as construction, and emissions from long-term activities, such as operational, and area wide emission sources.

   1c) A discussion of the potential health impact of Toxic Air Contaminants (TACs), if any, to near-by receptors.

Seyed Sadredin
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061
www.valleyair.org

Southern Region
2700 M Street, Suite 275
Bakersfield, CA 93301-2373
Tel: (661) 326-6900 FAX: (661) 326-6985

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1d) A discussion of whether the project would result in a cumulatively considerable net increase of any criteria pollutant or precursor for which the San Joaquin Valley Air Basin is in non-attainment.

1e) A discussion of whether the project would create nuisance odors.

1f) A discussion of the methodology, model assumptions, inputs and results used in characterizing the project's impact on air quality.

1g) A discussion of all existing District regulations that apply to the project.

1h) A discussion of all feasible measures that will reduce air quality impacts.

2) At this time there are no established significance thresholds for greenhouse gas emissions, however, it is suggested that the EIR include a discussion of greenhouse gas emissions generated by the project and the effect they will have, if any, on global climate change.

3) Emissions from permitted (stationary sources) and non-permitted (mobile sources) sources should be analyzed separately. The project should be considered to have a significant adverse impact on air quality if emissions from either source exceed the following amounts: 10 tons per year of oxides of nitrogen (NOx), 10 tons per year of reactive organic gases (ROG), or 15 tons per year particulate matter of 10 microns or less in size (PM10).

4) If the project is located near residential/sensitive receptors, the proposed project should be evaluated to determine the health impact of Toxic Air Contaminants (TACs) to the near-by receptors. If the analysis indicates that TACs are a concern, the District recommends that a Health Risk Assessment (HRA) be performed. If a HRA is to be performed, it is recommended that the project proponent contact the District to review the proposed modeling approach. Please contact Mr. Leland Villalvazo, Supervising Air Quality Specialist, at hramodeler@valleyair.org. Additional information on Toxic Air Contaminants (TACs) can be found on the District's Air Quality Modeling page; http://www.valleyair.org/busind/pto/Tox_Resources/AirQualityMonitoring.htm

5) If an HRA is performed, all input and out put files necessary to validate the analysis should be submitted to the District in electronic format.

6) The proposed project may require District permits. Prior to construction, the project proponent should submit to the District an application for an Authority to Construct (ATC). For further information or assistance, the project proponent may contact the District's Small Business Assistance Office at (559) 230-5888.

District staff is available to meet with you and/or the applicant to further discuss the regulatory requirements that are associated with this project. If you have any questions or require further information, please call Mark Montelongo at (559) 230-5905 and provide the reference number at the top of this letter.

Sincerely,

David Warner
Director of Permit Services

for: Arnaud Marjollet
Permit Services Manager

DW: mm

Appendix B

Air Quality Technical Data

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name:

Project Name: Kings County GPU

Project Location: Kings County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	102.24	21.72	547.50	1.75	87.35	84.07	28,858.20

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	284.19	740.22	3,427.59	2.40	202.75	54.28	244,678.01

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	386.43	761.94	3,975.09	4.15	290.10	138.35	273,536.21

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.85	11.17	6.11	0.00	0.02	0.02	14,005.75
Hearth	58.93	10.48	535.20	1.75	87.31	84.03	14,842.39
Landscape	1.06	0.07	6.19	0.00	0.02	0.02	10.06
Consumer Products	31.58						
Architectural Coatings	9.82						
TOTALS (tons/year, unmitigated)	102.24	21.72	547.50	1.75	87.35	84.07	28,858.20

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 0% to 100%

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	30.77	78.35	369.34	0.26	21.50	5.76	26,044.28
Apartments low rise	35.71	90.57	426.93	0.30	24.85	6.66	30,105.40
Condo/townhouse general	36.54	93.05	438.62	0.30	25.53	6.84	30,929.91
Regnl shop. center	128.70	347.83	1,582.96	1.12	95.10	25.43	114,318.52
General light industry	52.47	130.42	609.74	0.42	35.77	9.59	43,279.90
TOTALS (tons/year, unmitigated)	284.19	740.22	3,427.59	2.40	202.75	54.28	244,678.01

Operational Settings:

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Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2010 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	1,201.00	10.64	dwelling units	1,402.00	14,917.28	127,538.28
Apartments low rise	766.00	9.95	dwelling units	1,733.00	17,243.35	147,425.47
Condo/townhouse general	1,426.00	10.64	dwelling units	1,665.00	17,715.60	151,463.07
Regnl shop. center		42.94	1000 sq ft	1,779.00	76,390.26	564,753.17
General light industry		6.97	1000 sq ft	3,615.00	25,196.55	212,280.93
					151,463.04	1,203,460.92

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	41.5	1.4	98.4	0.2
Light Truck < 3750 lbs	13.1	3.1	90.0	6.9
Light Truck 3751-5750 lbs	19.8	1.5	98.0	0.5
Med Truck 5751-8500 lbs	11.0	0.9	99.1	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.1	0.0	71.4	28.6
Lite-Heavy Truck 10,001-14,000 lbs	0.7	0.0	42.9	57.1
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	10.0	90.0
Heavy-Heavy Truck 33,001-60,000 lbs	5.4	0.0	1.9	98.1
Other Bus	0.1	0.0	0.0	100.0

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Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	4.1	65.9	34.1	0.0
School Bus	0.2	0.0	0.0	100.0
Motor Home	0.9	0.0	88.9	11.1

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Regnl shop. center				2.0	1.0	97.0
General light industry				50.0	25.0	25.0

Energy Use Estimates

Land Use	Electricity Demand Factor		Buildout
Residential	7,000 kWh/du/year*	4,800	33,600,000
Commercial	16,750 kWh/1,000sf/year*	1,779,376	29,804,548
Industrial	10,500 kWh/1,000sf/year**	4,483,115	47,072,708
			110,477,256

*CAPCOA CEQA and Climate Change white paper (January 2008)
**South Coast Air Quality Management District's CEQA Air Quality Handbook (April 1993)

Greenhouse Gas Emission Worksheet
Operational GHG Emissions

Indirect Emission from Electricity Use

Total Project Annual KWh:	110,477,256	kWh/year
Project Annual MWh	**110,477**	**MWh/year**

Emission Factors		
CO2*	878.71	lbs/MWh/year
CH4**	0.0067	lbs/MWh/year
N2O**	0.0037	lbs/MWh/year

Total Annual Operational Emissions (metric tons) =
(Electricity Use (kWh) x EF)/2,204.62 lbs/metric ton

Conversion to Carbon Dioxide Equivalency (CDE) Units based on Global Warming Potential (GWP)

CH4	21	GWP
N2O	310	GWP
1 ton (short, US) =	0.90718474	metric ton

Annual Operational Emissions:

	Total Emissions		**Total CDE Units**	
CO2 emissions, electricity	48,538.7	tons	44,033.6	metric tons CDE
CO2 emissions***	28,858.2	tons	26,179.7	metric tons CDE
CH4 emissions	0.4	metric tons	7.8	metric tons CDE
N2O emissions	0.2	metric tons	63.4	metric tons CDE
		Project Total	***70,284.4***	***metric tons CDE***

References

*Table C.1: EPA eGRID CO2 Electricity Emission Factors by Subregion (Year 2000)
**Table C.3: Methane and Nitrous Oxide Electricity Emission Factors by State (Average Years 2001-2003)
*** URBEMIS Annual Emissions output for Area Source emissions; includes natural gas combustion for heating.

Sources: California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Gas Emissions, Version 2.2, March 2007
Third Assessment Report, 2001, U.S. Environmental Protection Agency, U.S. Greenhouse Gas Emissions and Sinks, 1990-2000 (April 2002)

Greenhouse Gas Emission Worksheet
Mobile GHG Emissions

From URBEMIS 2007 Vehicle Feel Mix Output

Daily Vehicle Miles Traveled (VMT)	1,203,461
Annual VMT	**439,263,265**

Vehicle Type	Percent Type	CH4 Emissions Factor (g/mile)*	CH4 Emissions (g/mile)	N2O Emission Factor (g/mile)	N2O Emission (g/mile)
Light Auto	41.5%	0.4	0.166	0.4	0.166
Light Truck < 3,750 lbs	13.1%	0.5	0.0655	0.6	0.0786
Light Truck 3,751-5,750 lbs	19.8%	0.5	0.099	0.6	0.1188
Med Truck 5,751-8,500 lbs	11.0%	0.5	0.055	0.6	0.066
Lite-Heavy Truck 8,501-10,000 lbs	2.1%	0.12	0.00252	0.2	0.0042
Lite-Heavy Truck 10,001-14,000 lbs	0.7%	0.12	0.00084	0.2	0.0014
Med-Heavy Truck 14,001-33,000 lbs	1.0%	0.12	0.0012	0.2	0.002
Heavy-Heavy Truck 33,001-60,000 lbs	5.4%	0.12	0.00648	0.2	0.0108
Other Bus	0.1%	0.5	0.0005	0.6	0.0006
Urban Bus	0.1%	0.5	0.0005	0.6	0.0006
Motorcycle	4.1%	0.09	0.00369	0.01	0.00041
School Bus	0.2%	0.5	0.001	0.6	0.0012
Motor Home	0.9%	0.12	0.00108	0.2	0.0018
	Total		**0.40331**		**0.45241**

*From Table C.4: Methane and Notrous Oxide Emission Factors for Mobile Sources by Vehicle and Fuel Type (g/mile)
Assume Model year 2000-present, gasoline fueled
Source: California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 2.2, March 2007

Total Emissions (metric tons) =
Emission Factor by Vehicle Mix (g/mi) x Annual VMT(mi) x 0.000001 metric tons/g

Conversion to Carbon Dioxide Equivalency (CDE) Units based on Global Warming Potential (GWP)

CH4	21	GWP
N2O	310	GWP
1 ton (short, US) =	0.90718474	metric ton

Annual Mobile Emissions:

	Total Emissions		Total CDE Units	
CO2 emissions*	244,678.0	tons CO2	221,968.2	metric tons CDE
CH4 emissions	177.2	metric tons CH4	3,720.3	metric tons CDE
N2O emissions	198.7	metric tons N2O	61,605.4	metric tons CDE
		Project Total:	***287,293.9***	***metric tons CDE***

*From URBEMIS 2007 results for mobile sources

Appendix C

Traffic and Circulation Technical Studies

Kings County Circulation Element Update

Existing Conditions Background Report

Prepared For:
County of Kings

Prepared By:

omni · means
ENGINEERS · PLANNERS

KINGS COUNTY
CIRCULATION ELEMENT UPDATE

EXISTING CONDITIONS
BACKGROUND REPORT

Prepared For:
COUNTY OF KINGS

Prepared By:

OMNI-MEANS, LTD.
ENGINEERS & PLANNERS
3530 West Mineral King Avenue, Suite A
Visalia, California 93291
(559) 734-5895

August 2008

55-1740-01
(R1255TS001.DOC)

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TRANSPORTATION AND CIRCULATION

The County of Kings is located in the south-central portion of the San Joaquin Valley and is comprised of 1,396 square miles. 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. The San Joaquin Valley is the richest farmland in the world and Kings County's farm land area is level irrigated farmland that averages over $1 billion a year in commercial crop production.

Within the San Joaquin Valley, Kings County is bordered by Fresno County to the north; Kern County to the south; Tulare County to the east; and Monterey County to the west. Elevations range from 175 feet in the Tulare Lake Basin to 3,473 feet at the extreme southwestern portion of the county.

There are four incorporated cities within Kings County, which contain almost seventy percent of the total county 2007 population estimate of 151,381. The four cities are Avenal, Corcoran, Hanford, and Lemoore. Several unincorporated communities are also located within the county, as well as the Lemoore Naval Air Station, and Santa Rosa Rancheria.

Kings County contains approximately 27 miles of interstate freeway, 130 miles of state facilities, 956 miles of county roads and 337 miles of city streets. There are two public use airports and approximately 67 miles of rail lines within the county, including the AMTRAK "San Joaquin" corridor. Public transit needs are served by the Kings Area Rural Transit (KART) and the Corcoran Area Transit (CAT). Kings County Area Public Transit Agency (KCAPTA) consists of Kings County and Avenal, Corcoran, Hanford, and Lemoore officials that oversee the operations of the local transit providers.

State highways play a major role in Kings County's transportation system. Highway traffic in Kings County is generally composed of farm-to-market, commuter and business trips. Local roads are utilized extensively for the movement of agricultural products. With increased urban population in the county, an increased percentage of commuter and business trips are occurring.

INTRODUCTION

The purpose of this section is to provide a firm understanding of existing transportation and circulation conditions in Kings County considering each primary mode of transportation. It is important to define the existing transportation and circulation system in order to identify any existing deficiencies. Such deficiencies will be addressed during development of the planned transportation and circulation system as well as during development of the implementation program.

This chapter of the Background Report summarizes the current state of transportation and circulation within the county. Key terms that are relevant to this discussion and a summary of local, state and federal regulations that apply will be covered.

This background report is divided into the following sections:

- Streets and Highways (Section 5.2);
- Public Transportation (Section 5.3);
- Rail Transportation (Section 5.4);
- Non-Motorized Systems (Section 5.5);
- Aviation Systems (Section 5.6);
- Goods Movement (Section 5.7);
- Transportation Systems Management/Transportation Demand Management (Section 5.8);
- Rural Road Repair (Section 5.9);
- Commuter Modes Transportation (Section 5.10);
- Major Trip Attractors (Section 5.11); and

KEY TERMS

- Government Code Section 65302(b). The General Plan shall include a Circulation Element consisting of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other local public utilities and facilities, all correlated with the Land Use Element of the plan.

- Government Code Section 65303. The General Plan may address any other subjects which, in the judgment of the legislative body, relate to the physical development of the county or city.
- Safe, Accountable, Flexible and Efficient Transportation Equity: A Legacy for Users (SAFETEA-LU). With guaranteed funding for highways, highway safety, and public transportation totaling $244.1 billion, SAFETEA-LU represents the largest surface transportation investment in this Nation's history. The two landmark bills that brought surface transportation into the 21st century—the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and the Transportation Equity Act for the 21st Century (TEA-21)—shaped the highway program to meet the Nation's changing transportation needs. SAFETEA-LU builds on this firm foundation, supplying the funds and refining the programmatic framework for investments needed to maintain and grow our vital transportation infrastructure.
- SAFETEA-LU addresses the many challenges facing our transportation system today – challenges such as improving safety, reducing traffic congestion, improving efficiency in freight movement, increasing intermodal connectivity, and protecting the environment – as well as laying the groundwork for addressing future challenges. SAFETEA-LU promotes more efficient and effective Federal surface transportation programs by focusing on transportation issues of national significance, while giving State and local transportation decision makers more flexibility for solving transportation problems in their communities.
- Federal Clean Air Act. The Federal Clean Air Act, coupled with federal legislation, requires that the RTP integrate transportation and air quality during the planning process. The 1990 California Clean Air Act (CCAA) Amendment requires the following stipulations in order to receive federal funding;
- Establish a permitting program that achieves no net increase in stationary source emissions;
- Develop a strategy to reduce vehicle trips, use and miles traveled;
- Increase average vehicle ridership to 1.5 persons per vehicle during commute hours;

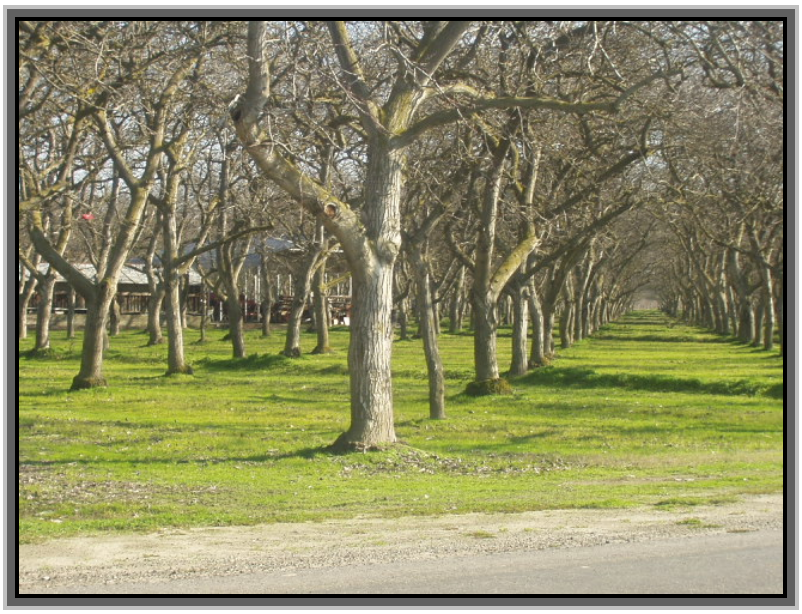
- Establish Best Available Retrofit Control Technology (BARCT) requirements for all permitted sources; and
- Development of indirect and area source programs.

Failure to meet Federal and State requirements of the CAAA may result in the following disciplinary actions:

- Limitations on the use of federal funds for highway construction;
- Cut off of federal grants for construction of sewage treatment plants; and
- Prohibition of development of new stationary sources of air pollution.
- Transportation Control Measures (TCMs) are designed to reduce vehicle miles traveled, vehicle idling, and/or traffic congestion in order to reduce vehicle emissions. Currently, Kings County is a non-attainment region under the Federal Clean Air Act (CAA) and the California Clean Air Act (CCAA). Both of these acts require implementation of TCMs that will be identified in following sections. These TCMs are as follows:
    - Rideshare Programs;
    - Park and Ride Lots;
    - Alternate Work Schedules;
    - Bicycle Facilities;
    - Public Transit;
    - Traffic Flow Improvement; and
    - Passenger Rail and Support Facilities.

EXISTING CONDITIONS

Implementation of the 2008 Kings County General Plan Circulation Element will improve the existing regional transportation and circulation systems. A primary focus in the development of the Circulation Element is to provide essential transportation connections between the cities and the unincorporated communities within Kings County. Such improvements are intended to fulfill required existing and future circulation needs. Implementation of planned improvements to the street and highway network, improvement to the Hanford airport, provision of mass transportation services and facilities, identification of additional bikeways and pedestrian improvements and improved transportation systems that accommodate existing and future goods movement, will have beneficial effects on a localized and region-wide basis.



Kings County's transportation system is composed of Interstate 5, several State Routes, including 33, 41, 43, 137, 198, 269 (which is entirely within the Avenal city boundary), and numerous county and city streets and roads. It also includes a public transit system, two common carriers (Greyhound and Orange Belt Stages), AMTRAK passenger rail service, other local agency transit and paratransit services, general aviation and freight rail service.

Travel within Kings County is a function of the size and spatial distribution of its population, economic activity, and the relationship to other major activity centers within the Central Valley (such as Visalia, Fresno and Bakersfield) as well as more distant urban centers such as Los Angeles, Sacramento, and the Bay Area. In addition, there is considerable travel between the northern portions of Kings County with Fresno and Tulare Counties, as they encompasses Kings County's entire northern and eastern boundary. Due to the interrelationship between urban and rural activities (employment, housing, services, etc.) and the low average density/intensity of land uses, the private automobile is the dominant mode of travel for residents in Kings County.

Where service is available, public transportation is utilized primarily by a transit-dependent population; the elderly, students, low-income residents and the physically handicapped. These segments of the population generally have limited access to automobiles. In addition, State correctional facility employees and visitors utilize transit services regularly in Kings County. In addition to the normal transit operations, the Santa Rosa Rancheria regularly provides transit service to the cities of Bakersfield, Fresno, Los Banos, Merced, Hanford and Visalia.

The agricultural economy of the county depends upon the safe and efficient movement of goods. Kings County is responsible for maintaining an extensive network of low to moderate volume farm-to-market roadways in sparsely settled areas to service its significant agricultural industry. Large trucks and van-pools are the primary means of transporting such goods and labor.

KART provides two vanpool services that are invaluable to the Kings County residents as well as adjoining counties. The Agricultural Industries Transportation Services (AITS) program is designed to provide qualified agricultural workers in Kings, Kern, Tulare and Fresno counties with safe, affordable vans they can use and drive themselves and others to work. The AITS program exists where the demand for farm labor transportation is high and is not limited to Kings County.

Each 15 passenger van is operated by volunteer farm workers that must obtain a Class C drivers license, pass a physical and provide a DMV printout of their driving record. The second program, KART Vanpools, provides eight and 15 passenger vans for groups that wish to carpool to and from work. The cost is based upon the number of passengers and the distance traveled each month. The driver qualifications are similar to the AITS drivers.

The sprawling pattern commonly associated with California transportation networks provides fewer modal options to commuters. Multimodal efforts in the county are focused on enhancing existing conditions and creating environmentally favorable patterns of travel. One approach

involves enhancement of park-and-ride facilities, vanpools and transit. The following subsections further describe each of the primary modes of transportation identified above.

The Kings County Association of Governments (KCAG) serves as the state-designated Regional Transportation Planning Agency (RTPA) and the federally-designated Metropolitan Planning Agency (MPO). A primary responsibility of KCAG is to update the Regional Transportation Plan (RTP) every three years that contains a constrained list of transportation projects (that are federally funded), air quality determination and set policies for spending federal and state funds. The RTP, with a 2035 planning horizon, is the key that unlocks federal and state funding for transportation projects.

STREETS AND HIGHWAYS

INTRODUCTION

This section identifies the regional street and highway setting as it pertains to streets, highways, freeways, etc. Further, this section provides a description of the county's federal functional classification, identifies existing roadway operations, describes the lane geometrics, and provides daily traffic count data.

METHODS

Existing traffic count data was obtained from a variety of sources, including the following:

- Caltrans website for State Route information;
- 2007 Kings County Association of Governments (KCAG) Regional Transportation Plan (RTP);
- KCAG traffic data (2006-07);
- Recently prepared Traffic Impact Studies and Environmental Impact Reports; and
- Traffic counts conducted for this Circulation Element.

In order to evaluate roadway facilities, the latest methodologies from the Highway Capacity Manual (HCM) were utilized.

KEY TERMS

- **Functional Classification System.** Functional Classification System identifies existing roadway classification based upon number of lanes, capacity, location, etc. Typically, functional classification refers to collectors, arterials, expressways, freeways, etc.
- **Level of Service (LOS).** LOS is used to measure the operating conditions of an intersection or a roadway segment by considering many factors including traffic volume and capacity. LOS is a qualitative measure of traffic operating conditions, whereby a letter grade "A" through "F" is assigned to an intersection or roadway segment representing progressively worsening traffic conditions.

- **Highway Capacity Manual 2000 (HCM).** The Transportation Research Board's (TRB) HCM provides a collection of state-of-the-art techniques for estimating the capacity and determining the LOS for transportation facilities, including intersections and roadways as well as facilities for transit, bicycles, and pedestrians.
- **Average Daily Traffic (ADT) or Average Annual Daily Traffic (AADT).** ADT volume is based upon traffic counts that record the number of vehicles (cars and trucks) that travel on the roadway during a typical weekday (Tuesday, Wednesday, or Thursday). These counts are typically conducted by using "hose" or "tube" counts, but can also be collected utilizing more advanced sensor devices. These methods have the ability to collect heavy-duty vehicle classification counts and directional information. In this report, the total ADT is used for the LOS analysis. It should be noted that in the transportation industry ADT is an acronym that is interchangeable with AADT, or the annual average daily traffic.
- **Peak Hour.** That hour during which the maximum amount of travel occurs. It is typically specified as the peak one hour of traffic experience during the morning peak hour (between 7:00 and 9:00 AM) and/or the afternoon peak hour (between 4:00 and 6:00 PM).

EXISTING CONDITIONS

REGIONAL SETTING

Figure 5-1 shows Kings County's relationship to the State Route system, nearby counties, cities and communities. Figure 5-2 identifies the designated street and highway network contained in the existing Circulation Element adopted by the county in 1994. It provides a definition of roads of significance throughout the county. The county's State Route network, which lies primarily within the Central San Joaquin Valley, includes Interstate 5, State Routes 33, 41, 43, 137, 198 and 269.

Figure 5-1: Regional Setting

Figure 5-2: Circulation Diagram

Prominent county roadways include Avenal Cutoff Road, Excelsior Avenue, Flint Avenue, Grangeville Bypass, Grangeville Boulevard, Houston Avenue, Jackson Avenue, Kansas Avenue, Lacey Boulevard, Laurel Avenue, Nevada Avenue, Pueblo Avenue, Utica Avenue, Whitney Avenue, 6th Avenue, 10th Avenue, 10 ½ Avenue, 12th Avenue, 12 ¾ Avenue, 14th Avenue, 18th Avenue and 22nd Avenue. Additionally, the highway system includes numerous county-maintained local roads, as well as local streets and highways within each of the four cities and four unincorporated communities.

The county is linked to the regional urban centers of Fresno (Fresno County) and Visalia (Tulare County) principally by State Route 41, State Route 43, and State Route 198. Major urban centers in Los Angeles, the Bay Area, and Sacramento utilize Interstate 5 in Kings County. These routes provide the only continuous routes through the county and are heavily used for regional travel. The entire length of Interstate 5 in Kings County and portions of State Route 198 near Hanford and Lemoore are constructed to freeway standards.

FUNCTIONAL CLASSIFICATION SYSTEM

Functional classification is the process by which streets and highways are grouped into classes, or systems, according to the type of service they are intended to provide. Fundamental to this process is the recognition that individual streets and highways do not serve travel independently in any major way. Rather, most travel involves movement through a network of streets and roads.

The following sections define roadway classification systems currently used by the Federal Highway Administration (FHWA), the county and local agencies. Since issues related to the classification of roadways range from funding to operational considerations, each agency has its own classification system. These sections define and clarify the role of each system and present the classification system used in this Element. A description of how the county roadway classification system relates to the others is also provided in this section.

It is necessary to determine how travel can be directed along the street and highway system in a logical and efficient manner. Functional classifications define the channeling process by defining the area that a particular street or highway should service through a circulation network. Table 5-1 defines the functional classes based on the residential road requirements and Table 5-2 defines the urban road requirements of the County.

TABLE 5-1. RESIDENTIAL ROAD REQUIREMENTS

	Residential Minor Density is			**Residential Collector Density is**		
	Dwelling Units Per Acre			**Dwelling Units Per Acre**		
Design Feature	<2	2 to 7	> 7	<2	2 to 7	> 7
	Low	Medium	High	Low	Medium	High
Right of Way	50'	56'	56'	60'	60'	60'
Pavement Width	26' or 36'	36'	36'	32' or 40'	40'	40'
Type Curbs	#	Vertical Face	Vertical Face	#	Vertical Face	Vertical Face
Sidewalk Width	None	5' or 5 ½'	5' or 5 ½'	None	5' or 5 ½'	5' or 5 ½'
Sidewalk distance from curb face	None	5' or attached	5' or attached	None	5' or attached	5' or attached
Minimum Stopping Sight Distance	200'	200'	200'	250'	250'	250'
Maximum Grade	4%	4%	4%	4%	4%	4%
Maximum cul-de-sac length**	1,320'	500'	500'	No cul-de-sacs*	No cul-de-sacs	No cul-de-sacs
Minimum cul-de-sac radius of right-of-way (with or without curb)	50'	50'	50'	No cul-de-sacs*	No cul-de-sacs	No cul-de-sacs
Design speed	30 mph	30 mph	30 mph	35 mph	35 mph	35 mph

TABLE 5-1. RESIDENTIAL ROAD REQUIREMENTS

	Residential Minor Density is			Residential Collector Density is		
	Dwelling Units Per Acre			Dwelling Units Per Acre		
Design Feature	<2	2 to 7	> 7	<2	2 to 7	> 7
Minimum centerline radius	250'	250'	250'	350'	350'	350'
Minimum tangent between curves	70'	70'	70'	100'	100'	100'
Off street parking	See Section 15 of Ordinance #269					

* May be allowed as interim in phase development to accommodate traffic.
** Number of dwellings served shall not exceed twenty (20).
\# Curbs and gutters are not required if adequate setbacks are provided (Section 404C).
Source: County of Kings Improvement Standards (May 6, 2003).

TABLE 5-2. URBAN ROAD REQUIREMENTS

Design Feature	Minor	Collector	Arterial
Right of Way width	60'	84'	100'
Curb-to-Curb width	40'	64'	84'
Type Curbs	Vertical	Face: see drawing	#3031
Sidewalk width	5 ½'	6 ½'	7 ½'
Distance from curb face to sidewalk (for alternate detached sidewalk)	5'	4'	Attached walk required
Minimum stopping sight distance.	275'	350'	475'
Maximum grade	5%	4%	3%
Design speed	40 mph	50 mph	60 mph
Minimum centerline radius	550'	850'	1,150'
Minimum tangent between curves	100'	200'	250'
Off street parking	See Either Section 15 or Section 150X-150Y of Ordinance #269		

Source: County of Kings Improvement Standards (May 6, 2003).

FEDERAL FUNCTIONAL CLASSIFICATIONS

Federal functional classifications designated for rural areas are as follows:

- Interstate and Other
- Principal Arterial
- Minor Arterials
- Major Collectors
- Minor Collectors

Federal functional classifications designated for urban areas are as follows:

- Interstate and Other
- Freeways and Expressways
- Other Principal Arterials
- Minor Arterials
- Collectors

FUNCTIONAL CLASSIFICATIONS USED IN THIS ELEMENT

In order to identify roadway infrastructure needs for the county to Year 2030 and beyond, several broad roadway classifications have been identified. These roadway classifications, though not as detailed or specific as those used for some urban areas in the county, are sufficient to identify roadway infrastructure needs from the county's perspective. The roadway classifications used in this document are:

- **Freeways.** A freeway is a divided, limited access highway. Access is provided at grade separated interchanges and vehicular crossing of these facilities is provided at grade separations. Freeways are designed to carry large volumes of traffic traveling long distances, although localized use of freeways in urban areas is present. Caltrans designs and constructs all freeways to State design standards. Federal standards are used if federal monies will be used to fund or partially fund the improvement. Alignments and key design details such as interchange locations are determined in consultation with local and federal authorities when applicable. Nothing

actually precludes local jurisdictions from building their own freeways. However, Caltrans' State Highway System contains virtually all candidate routes for freeways. The high cost of freeways has historically made it impractical for any agency other than Caltrans to construct new freeways.

- **Expressways.** These are highways that carry large volumes of traffic relatively long distances within or through an urban or rural area. They also often serve considerable local traffic traveling short distances. Along these facilities, priority is placed on individual fronting parcels is not allowed – fully controlled frontage access is required. Expressways should be continuous through the urban or rural community they serve and link to arterial routes. The designated right-of-way for expressways varies dependant upon the needs of the specific facility. Additional right-of-way may be required at some intersections.

- **Urban Arterials.** These are highways within the Sphere of Influence (SOI) that carries large volumes of traffic relatively long distances within or through an urban area. They also serve considerable local traffic traveling short distances. Along these facilities, priority is placed on through traffic mobility rather than access to fronting property and direct access to individual fronting parcels is discouraged. An urban arterial with fully controlled frontage access is an expressway. Urban Arterials should be continuous through the urban community they serve and link to arterial routes in adjacent communities or the rural areas. The designated right-of-way for urban arterials is 100 feet. Additional right-of-way may be required at some intersections.

- **Urban Collectors.** These are highways within the UAB or UDB that are intended to carry local traffic between the local street system and the arterial highway system. Urban collectors may serve average daily volumes in excess of 10,000 although volumes are normally less. The right-of-way standard for these facilities is 84 feet, and additional right-of-way may be required at some intersections.

- **Urban Minor.** These roads provide access to abutting property and link properties to the collector system. The right-of-way standard for urban minor roads is 60 feet.

- **Rural Residential Collector.** These highways are located outside the UAB or UDB and provide access to adjacent property. These facilities also provide for traffic movement to and from the arterial system. Residential collectors generally serve less than 10,000 AADT. The right-of-way needed for residential collector is 60 feet.
- **Rural Residential Minor.** These roads provide access to property and activity nodes in sparsely settled areas of the County. The right-of-way standard for these facilities is 60 feet, although in some instances a 50-foot right-of-way may apply. All County roads not shown on the Circulation Element Map are considered residential minor roads.

The intent of the functional classification system used in this Element and in city and community circulation elements is to describe the intensity and character of traffic using each type of facility, the character of adjacent uses, the priority placed on access to adjacent property versus through traffic mobility and roadway right-of-way standards. The intent of the Federal Functional Classification System described previously, is to identify what types of federal funding each type of facility is eligible to receive. The intent is not to characterize usage, adjacent development and right-of-way standards.

EXISTING IMPROVEMENT STANDARDS

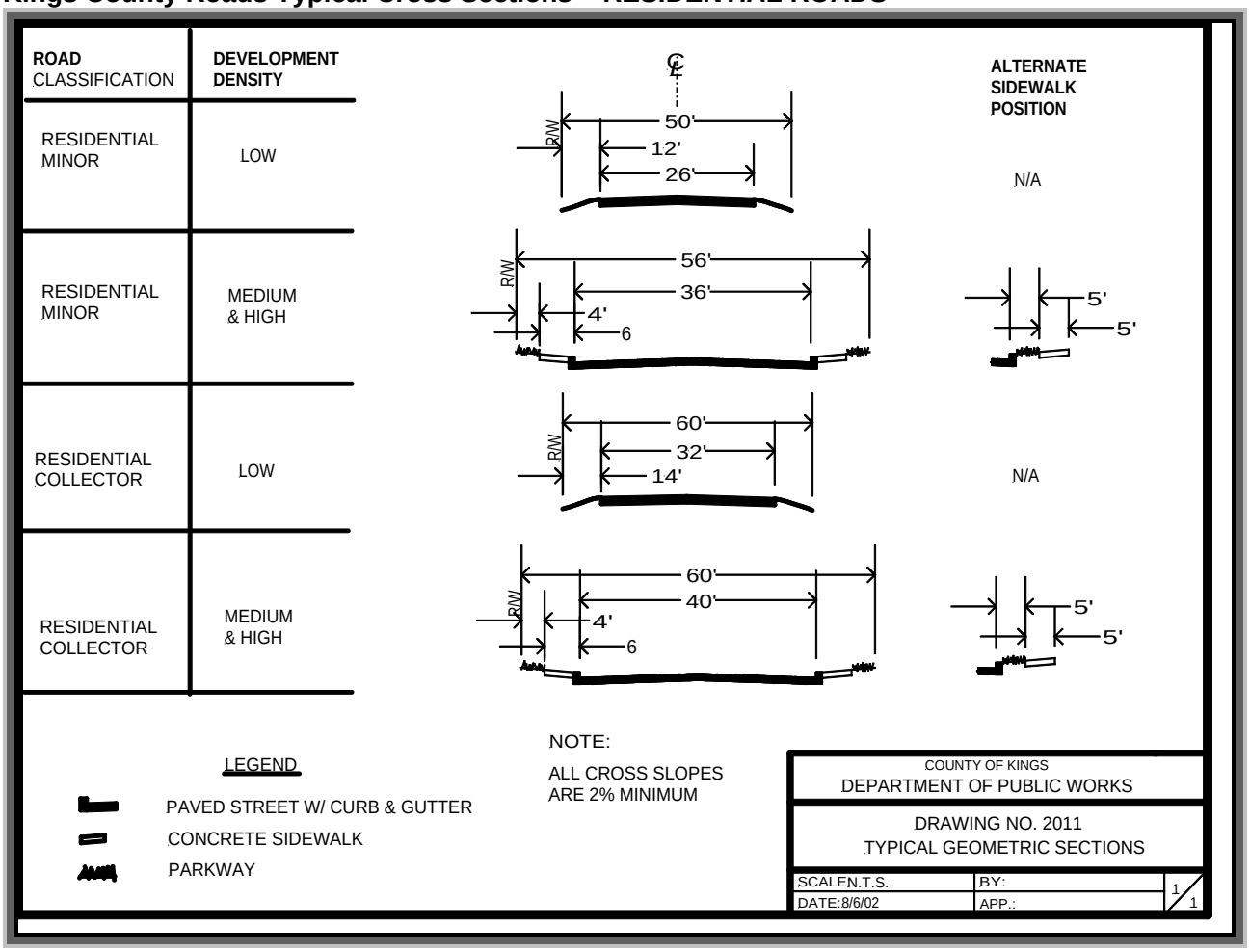
Improvement standards for local roads are broken into several classes; the standards vary depending on the minimum parcel sizes in the area and the number of parcels to be served by

the roadway. The illustration below shows typical cross sections for each class of local roadway. This illustration is shown as reference only; however, it closely follows the Federal Road Functional Classification.

FREEWAYS

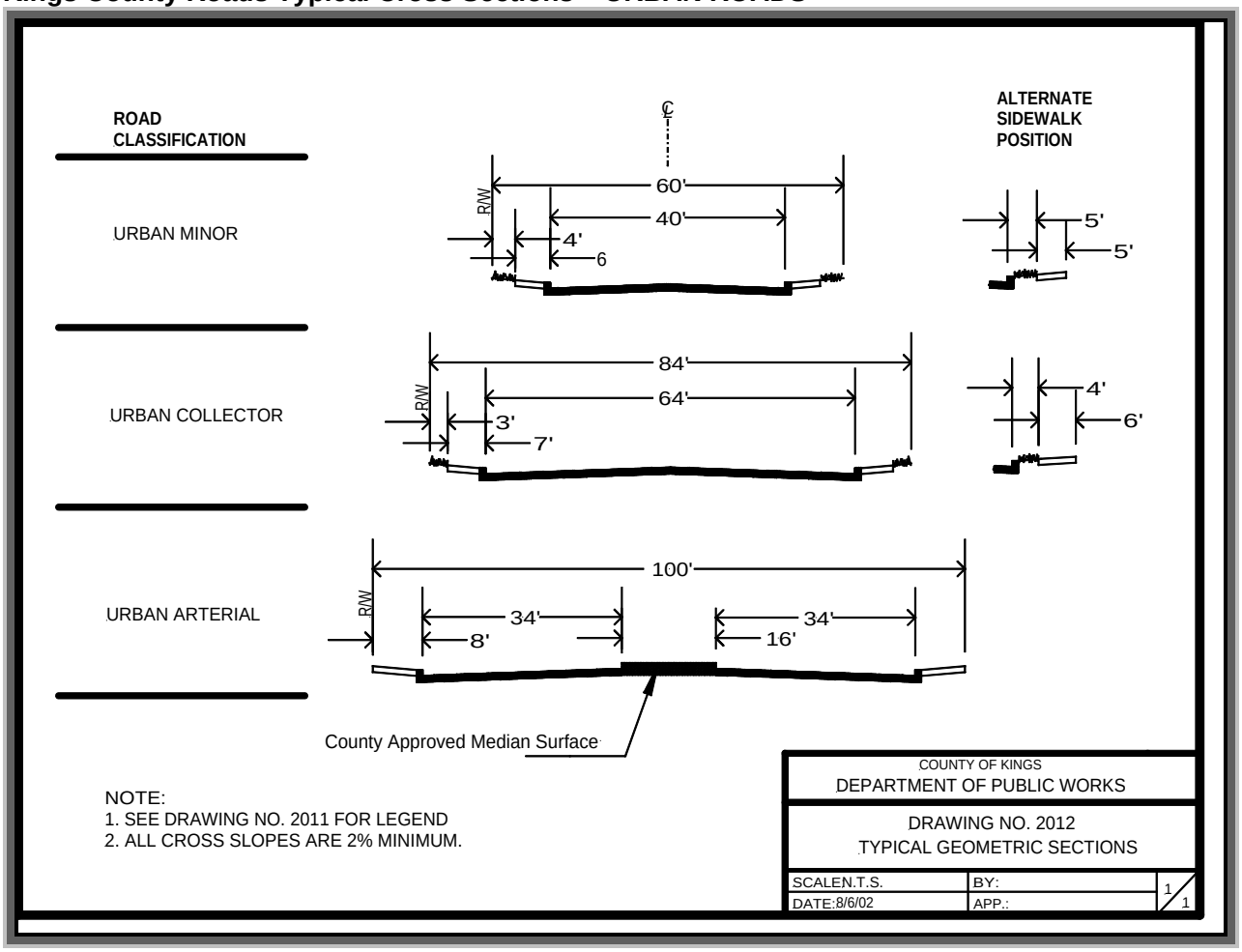
Interstate 5: Currently, Interstate 5 is a 4 lane divided freeway with a 75 foot wide median. The northbound segment contains two travel lanes as does the southbound segments. With approximately 39,500 daily trips near State Route 41, Interstate 5 is the most traveled roadway in the county. In addition, it is estimated that 30% of these trips are trucks. The City of Avenal and the community of Kettleman City are located near Interstate 5 and are directly impacted by this freeway with highway commercial type land uses.

Kings County Roads Typical Cross Sections – RESIDENTIAL ROADS



Source: County of Kings Improvement Standards (May 6, 2003).

Kings County Roads Typical Cross Sections – URBAN ROADS



Source: County of Kings Improvement Standards (May 6, 2003).

INTERCHANGES

No single design feature has a greater impact on the urban corridor than the interchange. An interchange is a high volume intersection characterized by a grade separation between highway and the cross street that is accessed by a ramp. The ability to accommodate high volumes of traffic safely and efficiently through the interchanges depends largely on the type of ramp, ramp volumes and the conditions between the ramp connections and local roads. Today, simple modifications to existing interchanges on Interstate 5 and State Routes 198, 43 and 41 are limited by the state owned right of way and local development. Spot congestion or bottlenecks are becoming more common as traffic volumes increase.

Some interchanges in Kings County have geometric concerns as related to turning radius and the at-grade intersections have short acceleration and deceleration lengths. This creates

congestion when high volumes of traffic back up on ramps, when drivers must slow down on the freeway or when slow moving trucks interrupt the flow of traffic.

Limited spacing between interchanges has a negative impact on the flow of traffic. This is evident in Lemoore near 18 ½ Avenue and 19th Avenue urban areas during peak commute periods when the traffic is forced to slow because of the traffic entering and exiting the highway. Whenever possible, spacing between interchanges needs to be increased to reduce congestion. In the future, this may result in closing some interchanges to improve spacing. Based upon Caltrans Highway Design Manual, interchanges in urban areas should have a minimum of one mile spacing; in rural areas and freeway to freeway interchanges, the minimum spacing should be no less than two miles.

Improvements to existing interchanges are limited by adjacent development, environmental issues and cost. Minor changes to the existing geometry have provided some improvements, but more congestion can be expected unless modifications are made.

EXISTING CONDITIONS ANALYSIS (STREET AND HIGHWAY LEVEL OF SERVICE)

The first step toward the development of a functional street and highway system is to evaluate existing traffic operating conditions. To accomplish this task, an existing roadway segment level of service (LOS) analysis was conducted. LOS standards are used by Kings County, KCAG, Caltrans, and local agencies to quantitatively assess the street and highway system's performance. In order to determine the type and number of transportation projects that may be necessary to accommodate Kings County's projected growth, freeway, expressway, arterial, and collector facility LOS was assessed. According to the HCM, LOS is categorized by two parameters of traffic: uninterrupted and interrupted flow. Uninterrupted flow facilities do not have fixed elements such as traffic signals that impede traffic flow. Examples of such facilities would be freeways, including Interstate 5 within Kings County. Interrupted flow facilities have fixed elements that cause an interruption in the flow of traffic, such as stop signs and signalized intersections along arterial roads. The LOS threshold volumes for roadway segments are defined in Table 5-3.

TABLE 5-3
LEVEL OF SERVICE THRESHOLD VOLUMES

Roadway Type	Total Daily Vehicles in Both Directions (ADT)				
	Level of Service A	Level of Service B	Level of Service C	Level of Service D	Level of Service E
6-Lane Freeway	36,900	61,100	85,300	103,600	115,300
4-Lane Freeway	23,800	39,600	55,200	67,100	74,600
6-Lane Arterial	7,300	44,700	52,100	53,500	----
4-Lane Arterial (turn lanes)	4,800	29,300	34,700	35,700	----
4-Lane Collector	2,400	14,650	17,350	17,850	----
2-Lane Facility	----	4,200	13,800	16,400	16,900

Note: 1 Based upon Florida DOT Tables (2000 Highway Capacity Manual). ADT = Average Daily Traffic

2. All volumes are approximate and assume ideal roadway characteristics. Actual threshold volumes for each Level of Service listed above may vary depending on a number of factors including curvature and grade, intersection or interchange spacing, percentage of trucks and other heavy vehicles, lane widths, signal timing, on-street parking, amount of cross traffic and pedestrians, driveway spacing, etc.

An important goal is to maintain an acceptable LOS on the highway, street and road networks. To accomplish this, the county, Caltrans, and local agencies adopt minimum LOS standards in an attempt to manage congestion that may result as new development occurs.

LOS standards vary throughout the county and the four incorporated cities. The LOS threshold is identified that the “minimum” LOS standard within the county shall be no lower than LOS “E” for urban areas and LOS “D” for rural areas. However, each local agency that owns and operates transportation facilities may select a LOS standard more stringent than the minimum LOS standards. For purposes of this report, a peak-hour LOS of “D” is taken as the threshold for acceptable traffic operations for the Kings County road network.

To determine the existing LOS for each segment of the street and highway network, segment LOS was identified from information referenced from the Caltrans website, in the existing Regional Transportation Plan (RTP), and from data provided by KCAG from the modeling efforts. LOS was also estimated using the Modified HCM-Based LOS Tables (Florida Tables). These tables consider the capacity of individual street and highway segments based on numerous roadway variables (freeway design speed, signalized intersections per mile, number of lanes, saturation flow, intersection control, etc.). These variables were identified and applied to reflect existing traffic LOS conditions in Kings County. The variables are consistent with HCM variables referenced above in Table 5-3.

EXISTING TRAFFIC COUNTS AND FUTURE TRAVEL FORECAST

Traffic volumes used to develop LOS calculations were obtained from Caltrans, KCAG, and various local agencies (reference Figure 5-3 and Table 5-4). Traffic volumes were available from these agencies from 2006-07. In areas where recent traffic counts were not available (within three years), traffic counts were subcontracted to get the available data. The 2035 traffic volumes were forecasted utilizing the KCAG Regional Travel Demand Forecast Model. It is based upon build-out of the General Plan.

Figure 5-3: Existing Daily Traffic Volumes

Table 5-4. Annual Average Daily Traffic Volumes and Levels of Service (2006 & 2035)

Roadway Segment	Limits	2006			2035		
		No. of Lanes	AADT	LOS	No. of Lanes	AADT	LOS
Interstate 5	Kern Co. Line – Utica Avenue	4	31,500	B	4	49,420	C
Interstate 5	Utica Avenue – State Route 41	4	32,500	B	4	52,990	C
Interstate 5	State Route 41 – Fresno Co. Line	4	34,500	B	4	48,490	C
State Route 33	Kern Co. Line – State Route 41	2	2,500	B	2	4,130	B
State Route 33	State Route 41 – 7th Avenue	2	2,400	B	2	9,000	C
State Route 33	7th Avenue – State Route 269	2	2,400	B	2	8,580	C
State Route 33	State Route 269 – Fresno Co. Line	2	2,300	B	2	4,980	C
State Route 41	Kern Co. Line – State Route 33	2	7,500	C	2	11,550	C
State Route 41	State Route 33 – Interstate 5	2	6,700	C	2	8,340	C
State Route 41	Interstate 5 – Bernard Drive	4	9,500	B	2	13,940	D
State Route 41	Bernard Drive – Quail Avenue	2	7,100	C	2	13,260	C
State Route 41	Quail Avenue – Nevada Avenue	2	8,300	C	2	10,840	C
State Route 41	Nevada Avenue – Jackson Avenue	2	8,500	C	2	13,370	C
State Route 41	**Jackson Avenue – State Route 198**	2	9,700	C	**2**	**19,340**	**F**
State Route 41	State Route 198 – Bush Street	4	14,200	B	4	43,840	C
State Route 41	Bush Street – Houston Avenue	4	18,000	B	4	29,910	C
State Route 41	Houston Avenue – Hanford –Armona Road	4	18,000	B	4	29,910	C
State Route 41	Hanford-Armona Road – Grangeville Boulevard	4	20,000	B	4	31,390	C
State Route 41	Grangeville Boulevard – Fresno Co. Line	4	18,000	B	4	23,330	B
State Route 43	Tulare Co. Line – Railroad Drive	2	4,700	C	2	6,860	C
State Route 43	State Route 137 – Corcoran Bypass	2	3,500	B	2	9,730	C
State Route 43	**Corcoran Bypass – Kansas Avenue**	2	6,300	C	**2**	**18,190**	**F**
State Route 43	Kansas Avenue – Houston Avenue	2	5,800	C	2	12,950	C
State Route 43	Houston Avenue – State Route 198	2	8,700	C	2	13,070	C
State Route 43	State Route 198 – Lacey Boulevard	2	11,300	C	2	14,230	D
State Route 43	Lacey Boulevard – Grangeville Boulevard	2	10,300	C	2	13,840	D
State Route 43	Grangeville Boulevard – 10th Avenue	2	9,800	C	2	11,720	C
State Route 43	**10th Avenue - Excelsior Avenue**	2	10,300	C	**2**	**17,040**	**F**
State Route 43	**Excelsior Avenue – Fresno Co. Line**	2	10,800	C	**2**	**18,590**	**F**
State Route 137	State Route 43 – Tulare Co. Line	2	2,550	B	2	5,390	C
State Route 198	Fresno Co. Line – LNAS	2	7,700	C	4	11,940	A
State Route 198	LNAS – Avenal Cutoff Road	4	14,700	B	4	31,890	B
State Route 198	Avenal Cutoff Road – State Route 41	4	18,500	B	4	43,990	C
State Route 198	State Route 41 – 18th Avenue	4	20,900	B	6	54,820	C
State Route 198	18th Avenue – Houston Avenue	4	21,800	B	4	58,280	D
State Route 198	**Houston Avenue – 14th Avenue**	4	29,000	B	**4**	**67,350**	**E**
State Route 198	**14th Avenue – Hanford-Armona Road**	4	32,000	B	**4**	**67,710**	**E**
State Route 198	Hanford-Armona Road – 12th Avenue	4	28,500	B	4	60,250	D
State Route 198	12th Avenue – 11th Avenue	4	20,700	B	4	59,780	D

Roadway Segment	Limits	2006			2035		
		No. of Lanes	AADT	LOS	No. of Lanes	AADT	LOS
State Route 198	11th Avenue – 10th Avenue	4	19,500	B	4	39,650	C
State Route 198	10th Avenue – State Route 43	4	19,800	B	4	33,040	B
State Route 198	State Route 43 – 6th Avenue	4	18,900	B	4	35,110	B
State Route 198	**6th Avenue – Tulare Co. Line**	**2**	**19,800**	**F**	4	33,910	B
State Route 269	State Route 33 – Hydril Road	2	5,000	C	2	11,380	C
State Route 269	Hydril Road – Interstate 5	2	3,100	B	4	15,330	B
Avenal Cutoff	State Route 269 – Nevada Avenue	2	3,000	B	2	10,770	C
Avenal Cutoff	Nevada Avenue – State Route 198	2	5,150	C	2	10,610	C
Excelsior Avenue	22nd Avenue – State Route 41	2	1,520	B	2	1,720	B
Excelsior Avenue	State Route 41 – 19th Avenue	2	2,190	B	2	2,990	B
Excelsior Avenue	19th Avenue – 14th Avenue	2	3,300	B	2	3,770	B
Excelsior Avenue	14th Avenue – 12 ¾ Avenue	2	3,490	B	2	4,780	C
Excelsior Avenue	12 ¾ Avenue – 12th Avenue	2	4,550	C	2	5,470	C
Excelsior Avenue	12th Avenue – State Route 43	2	3,140	B	2	7,410	C
Excelsior Avenue	State Route 43 – 6th Avenue	2	790	B	2	2,410	B
Flint Avenue	6th Avenue – State Route 43	2	1,380	B	2	1,430	B
Flint Avenue	State Route 43 – 11th Avenue	2	2,490	B	4	6,020	B
Flint Avenue	11th Avenue – State Route 41	2	2,290	B	2	4,510	C
Fremont Avenue	State Route 41 – 22nd Avenue	2	800	B	2	2,590	B
Grangeville Boulevard	Grangeville Bypass – 22nd Avenue	2	3,120	B	2	12,010	C
Grangeville Boulevard	22nd Avenue – State Route 41	2	4,560	C	2	9,170	C
Grangeville Boulevard	State Route 41 – 18th Avenue	2	4,940	C	2	7,440	C
Grangeville Boulevard	18th Avenue – 12th Avenue	2	5,290	C	2	6,700	C
Grangeville Boulevard	Hanford City Limits – 6th Avenue	2	3,080	B	4	13,180	B
Grangeville Boulevard	6th Avenue – Tulare Co. Line	2	3,120	B	2	8,370	C
Grangeville Bypass	Grangeville Boulevard – Fresno Co. Line	2	3,090	B	2	5,860	C
Houston Avenue	17th Avenue – 14th Avenue	2	9,340	C	2	10,170	C
Houston Avenue	14th Avenue – 12th Avenue	2	2,090	B	2	4,980	C
Houston Avenue	12th Avenue – 10th Avenue	2	3,820	B	2	6,160	C
Houston Avenue	10th Avenue – State Route 43	2	3,520	B	2	4,400	C
Houston Avenue	State Route 43 – 2nd Avenue	2	4,350	C	2	5,730	C
Jackson Avenue	State Route 198 – 18th Avenue	2	1,380	B	2	9,110	C
Jackson Avenue	18th Avenue – State Route 43	2	680	B	2	4,980	C

Roadway Segment	Limits	2006			2035		
		No. of Lanes	AADT	LOS	No. of Lanes	AADT	LOS
Kansas Avenue	State Route 41 – 18th Avenue	2	1,400	B	2	2,030	B
Kansas Avenue	18th Avenue – 15th Avenue	2	3,670	B	2	4,740	C
Kansas Avenue	15th Avenue – 10 ½ Avenue	2	2,170	B	2	7,130	C
Kansas Avenue	10 ½ Avenue – State Route 43	2	5,010	C	2	5,610	C
Kansas Avenue	State Route 43 – Tulare Co. Line	2	3,270	B	2	3,290	B
Lacey Boulevard	13th Avenue – 18th Avenue	2	8,110	C	2	10,750	C
Lacey Boulevard	18th Avenue – State Route 41	2	1,630	B	2	3,150	B
Laurel Avenue	18th Avenue – State Route 41	2	740	B	2	1,690	B
Laurel Avenue	State Route 41 – Avenal Cutoff	2	910	B	2	1,030	B
Nevada Avenue	Fresno Co. Line – Avenal Cutoff	2	2,520	B	2	3,220	B
Nevada Avenue	Avenal Cutoff – State Route 41	2	390	B	2	880	B
Nevada Avenue	22nd Avenue – Tulare Co. Line	2	600	B	2	970	B
Pueblo Avenue	19th Avenue – 10th Avenue	2	380	B	2	730	B
Utica Avenue	25th Avenue – 14th Avenue	2	690	B	2	2,150	B
Utica Avenue	14th Avenue – 12th Avenue	2	550	B	2	1,860	B
Utica Avenue	12th Avenue – 6th Avenue	2	540	B	2	2,490	B
Whitley Avenue	6 ½ Avenue – 10th Avenue	2	2,440	B	2	3,740	B
6th Avenue	Utica Avenue – Kern Co. Line	2	760	B	2	6,320	C
6th Avenue	Plymouth Avenue – Utica Avenue	2	2,020	B	2	4,410	C
6th Avenue	Houston Avenue – State Route 198	2	380	B	2	1,570	B
6th Avenue	State Route 198 – Fargo Avenue	2	2,290	B	2	2,230	B
6th Avenue	Fargo Avenue – Tulare Co. Line	2	1,920	B	2	440	B
10th Avenue	Kansas Avenue – Idaho Avenue	2	1,200	B	2	1,700	B
10th Avenue	Idaho Avenue – Houston Avenue	2	2,024	B	2	2,690	B
10th ½ Avenue	Utica Avenue – Nevada Avenue	2	2,900	B	2	4,250	C
10th ½ Avenue	Nevada Avenue – Niles	2	2,000	B	2	5,470	C
12th Avenue	Grangeville Boulevard – Fargo Avenue	2	5,170	C	4	18,740	B
12th Avenue	Fargo Avenue – Excelsior Avenue	2	3,960	B	2	6,470	C
12 ¾ Avenue	Excelsior Avenue – Fresno Co. Line	2	3,100	B	2	5,860	C
14th Avenue	Excelsior Avenue – Flint Avenue	2	1,190	B	2	1,620	B
14th Avenue	Flint Avenue – Grangeville Boulevard	2	3,120	B	2	3,220	B
14th Avenue	Grangeville Boulevard – Houston Avenue	2	5,880	C	2	3,790	B
14th Avenue	Houston Avenue – Kansas Avenue	2	2,430	B	2	2,540	B

Roadway Segment	Limits	2006			2035		
		No. of Lanes	AADT	LOS	No. of Lanes	AADT	LOS
18th Avenue	Flint Avenue – Grangeville Boulevard	2	760	B	2	2,250	B
18th Avenue	Grangeville Boulevard – Lacey Boulevard	2	2,930	B	2	3,940	B
18th Avenue	State Route 198 – Jackson Avenue	2	6,190	C	4	16,160	B
18th Avenue	Jackson Avenue – Laurel Avenue	2	1,690	B	2	2,650	B
22nd Avenue	Grangeville Boulevard – Excelsior Avenue	2	1,280	B	2	1,560	B

As shown in Table 5-4, all of the roadway segments, except for one, are currently operating at acceptable LOS "D" conditions or better under base conditions. The roadway segment of State Route 198 between 6th Avenue and the Tulare County line is currently operating at LOS "F" conditions. The deficiency is a result of increased traffic due to population growth and with limited improvements to the roadway. Improvements, including widening this segment from two to four lanes, are planned for this corridor within the next five years.

Based on the 2035 traffic model, twelve roadway segments are not forecasted to operate at acceptable LOS "D" conditions or better in the future. The deficient roadway segments are listed below:

- State Route 41 from State Route 33 to Interstate 5;
- State Route 41 from Jackson Avenue to State Route 198;
- State Route 43 from Corcoran Bypass to Kansas Avenue;
- State Route 43 from State Route 198 to Lacey Boulevard;
- State Route 43 from Lacey Boulevard to Grangeville Boulevard;
- State Route 43 from 10th Avenue to Excelsior Avenue;
- State Route 43 from Excelsior Avenue to Fresno Co. Line;
- State Route 198 from 18th Avenue to Houston Avenue;
- State Route 198 from Houston Avenue to 14th Avenue;
- State Route 198 from 14th Avenue to Hanford-Armona Road;
- State Route 198 from Hanford-Armona Road to 12th Avenue; and
- State Route 198 from 12th Avenue to 11th Avenue.

The deficiencies are a result of increased traffic, population growth and expected developments. Improvements, including widening road segments, planned intersection modifications, will aid in the reduction of congestion. All these deficiencies were identified in the Regional Transportation Plan and mitigation measures, such as widening roadways, are anticipated to occur through 2035.

PUBLIC TRANSPORTATION

INTRODUCTION

This section describes the existing transit service providers in the county and its four incorporated cities. It also provides transit ridership data for Fixed Route and Dial-a-Ride services. A discussion is also included regarding the county's common carriers.

METHODS

In order to collect transit and common carrier information, both transit providers in Kings County were contacted. Kings Area Rural Transit (KART) provides transit service countywide with Corcoran Area Transit (CAT) serving the Corcoran area. Both agencies submitted ridership numbers and information related to schedules and fares. KCAG also provided data related to the annual unmet transit needs meeting.

KEY TERMS

- Fixed Route. Regularly scheduled routes that operate on set days and times. Transit riders are able to obtain route maps that show pick-up and drop-off times and bus stop locations.
- Dial-a-Ride. Elderly and handicapped passengers generally use this service. This service picks up and drops off passengers anywhere within the designated jurisdiction for a reasonable price.

- Common Carrier. A privately owned bus or charter service is a company that generally provides service to destinations beyond the county, i.e., Orange Belt Stages, Greyhound Bus Lines and Santa Rosa Rancheria Shuttle.
- Flag Stop. A bus stop where the riders 'flag' down the bus along a particular route.

EXISTING CONDITIONS

Kings Area Rural Transit (KART) is Kings County's complete public rural and urban transportation provider. KART provides the City of Hanford with 6 interconnected ½ hour routes, regular service to most other communities in the county and daily weekday service to Visalia. KART also provides service transportation to Fresno on Monday, Wednesday and Friday for medical trips. Dial-a-Ride service is provided to residents of Hanford, Lemoore, and Avenal. Figure 5-4 identifies existing transit routes in Kings County.

Dial-A-Ride (demand response) service is available for those residents of Hanford, Lemoore, Armona and Avenal traveling more than ½ of a mile from an existing fixed bus route or for those riders certified by KART as disabled. It is the policy of the Kings County Area Public Transit Agency (KCAPTA) Board that a rider who begins and ends a trip within a ½ mile of a bus route is to use the regular route service and not Dial-A-Ride.

KART provides route service to Fresno on Monday, Wednesday and Friday. Passengers using this service for medical appointments must make appointments between the hours of 10:00 AM and 2:00 PM. The fare for all medical trips is $1.50. All other fares are listed below:

Fares	***General***	***Monthly***
Downtown Hanford Routes	$1.00	$30.00
All out of town routes to and from Hanford serving: Armona/Avenal/Corcoran/Fresno/ Grangeville/Hardwick/Kettleman City/Laton Lemoore/Lemoore NAS/Stratford and Visalia	$1.50	$50.00
Dial-A-Ride	$2.00	$40.00

Half price fare on regular fixed routes is available from 9 AM thru 3 PM for eligible seniors 60 and over, ADA and Disabled ID Card holders, and Medicare Card holders.

KART offers bus service between cities and communities in the county via seven routes:

- The Hanford-Avenal route includes stops in Armona, Lemoore, Stratford and Kettleman City. (Monday thru Friday);
- The Hanford-Lemoore Naval Air Station (LNAS) route includes service to Armona, Lemoore, West Hills College (Lemoore) and the LNAS (Monday thru Saturday);
- The Hanford-Lemoore Direct route includes stops in Armona and Lemoore with half hour headways (Monday thru Friday);
- The Hanford-Corcoran route provides daily transit service to Corcoran Depot and the Corcoran State Prison (Monday thru Friday);
- The Hanford-Laton route services the communities of Grangeville, Hardwick and Laton (Monday thru Friday);
- The Hanford-Visalia route, which serves the College of Sequoias (Visalia), Chapman College, Galen College and the College of Sequoias Agricultural Center (Monday thru Friday); and

Figure 5-4a: Existing Kings County Transit Routes

Figure 5-4b: Existing Kings County Transit Routes

- The Hanford-Fresno route provides transit service for Kaiser (Selma), University Medical Center, Veteran's Hospital, Kaiser (Fresno) and Valley Children's Hospital operates on Monday, Wednesday and Friday.

KART is the primary transportation outlet linking Kings County's rural and unincorporated communities to other communities within the region. Offering seven routes from Laton in Fresno County to Avenal in the southwestern county, KART is a full service provider. KART interlinks the counties transportation needs in relation to the rural makeup of the area.

Since 1989 the City of Corcoran has operated transit service to facilitate the transportation needs of the residents of the City of Corcoran and surrounding Kings County fringe areas. Transit service operates from the remodeled Corcoran Depot (AMTRAK stop) with five transit buses.

While the Corcoran Depot is not an official AMTRAK Depot, it is still available to AMTRAK passengers, KART passengers and CAT passengers. There is a self-serve AMTRAK ticket dispenser located in the Corcoran Depot for local travelers.

Corcoran Area Transit (CAT) provides on-demand (Dial-a-Ride) transit service as well as a fixed route bus. CAT fare for the buses and the subsidized AMTRAK ticket sales (Corcoran sells AMTRAK tickets at a 50% discount with subsidies from the Transportation Development Act) are listed below:

CAT – Fixed Route Service

Full Fare - $ .25

Day Pass - $ .50

Senior Citizens, Children and Disabled - Free

CAT – On Demand Service – Dial-a-Ride

Full Fare - $1.00

Day Pass - $2.00

30 Ride Ticket - $30.00

Senior Citizens, Children and Disabled - $ .50

Two common carriers (Greyhound and Orange Belt Stages) also provide private transit services within the county, linking it with other regions in the San Joaquin Valley and California (reference Figure 5-5). Orange Belt Stages also offers daily trips to Las Vegas and to areas along the Central Coast. Greyhound arrives/departs from the community of Goshen in Tulare County. Finally, KART and CAT coordinate their respective schedules and transfer stops to provide for enhanced and effective transit service.

Figure 5-5a: Existing Common Carriers

Figure 5-5b: Existing Common Carriers

UNMET TRANSIT NEEDS PROCESS

Each year KCAG holds an “unmet transit needs” hearing that is consistent with Section 99401.5 of the Transportation Development Act (TDA) of the Public Utilities Code. The TDA governs the administration of the Local Transportation Funds (LTF). The referenced section of the Act clarifies that the RTPA must make a finding, after a public hearing, that there are no unmet public transit needs within a jurisdiction that can be reasonably met before it may approve LTF claims for streets and roads. The RTP address the ADA requirements in Title 23, CFR Section 450.316 9(b)(3) by meeting the needs of Kings County’s disability community. Transit in Kings County is accessible equally by disabled, able bodied, senior citizens and minorities. Buses and facilities are equipped to handle wheelchairs and all schedules are prepared in Spanish to be consistent with the Title VI of the Civil Rights Act of 1964 and the Title VI assurance executed by each State, which ensure that no person shall, on grounds of race, color, sex, national origin, or physical handicap, be excluded from participation in, be denied benefits of, or be otherwise subjected to discrimination under any program receiving Federal assistance from the United States Department of Transportation.

For the annual “unmet transit needs”, a public notice is prepared and published in all city newspapers and posted thirty days prior to the hearing. All transit users are invited and are afforded equal time to comment in regards to transit needs in Kings County. Following the hearing, the Social Service Transportation Advisory Council (SSTAC) reviews the unmet transit needs expressed in the hearing. The SSTAC makes recommendations that are transmitted to KCAG’s Board. If any “unmet transit needs” are found to be reasonable to meet by the RTPA they must be addressed before approving street and road funding. If an “unmet transit need” is

found to be unreasonable to meet, it is noted and documented. KCAG has defined the unmet transit needs terms as follows:

A. "Unmet transit need", at a minimum, exist 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.

B. 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 service 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.

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

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

In Kings County, typical unmet needs are generally related to the number of routes per day, operating times, weekend and holiday service, etc. The results of the unmet needs process assists local transit agencies as they plan for future transit services.

PARK AND RIDE FACILITIES

Park and ride facilities are used primarily by carpoolers, vanpoolers and transit riders for the daily commute; usually for free. Park and ride facilities in the county are open 24 hours a day, seven days a week. Currently, the only official park and ride facility in Kings County is located north of Hanford on State Route 43 (30 parking spaces). Bicycle lockers and stalls are available at the Hanford AMTRAK station for long term storage and convenience. No additional park and ride lots are proposed for the Kings County area. Park and ride lots and their usage should bring positive contributions to air quality and congestion improvements in Kings County.

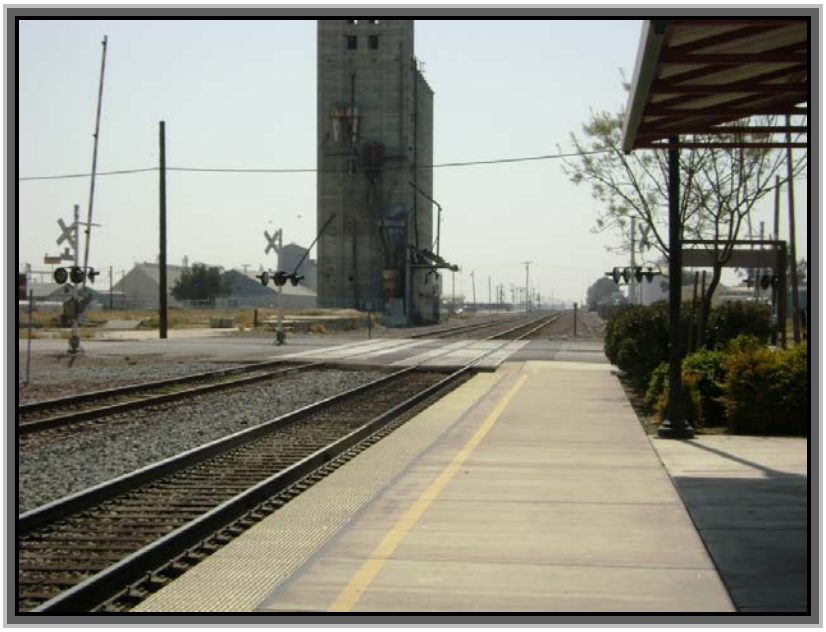
RAIL TRANSPORTATION

INTRODUCTION

This section provides a description of three existing railroad operators and shows a map of existing railroads in the county. There is also a discussion regarding AMTRAK services that are provided to county residents within the cities of Hanford and Corcoran.

METHODS

In order to obtain information related to rail transportation, the websites of Burlington Northern and Santa Fe Rail Road (BN&SF), Rail America (formerly San Joaquin Valley Railroad), and AMTRAK were utilized as the primary source of information. This information included maps, passenger/freight information, and schedule of routes (if known). In addition, information from the 2007 KCAG RTP was used.



KEY TERMS

Union Pacific (UP) Railroad

Burlington Northern and Santa Fe (BN&SF)

Rail America

EXISTING CONDITIONS

BN&SF and SJVRR both provide freight service to Kings County, connecting the county with major markets within California (Oakland/San Francisco/San Jose, Sacramento, and Los Angeles) and to other destinations north and east. Routes of principal rail lines in the county are identified in Figure 5-6. Freight terminals and service to specific industries are located throughout the county. Though the railroads are reluctant to provide information on the amount of freight originating in the county, it is likely that the predominant mode for freight movements in the county will continue to be by truck in the foreseeable future. This is certainly the trend expected for raw agricultural commodities moving to packing houses and process facilities.

Figure 5-6a: Existing Rail Transportation System

Figure 5-6b: Existing Rail Transportation System

Passenger rail service (six round trips daily) in the county are provided by AMTRAK on its San Joaquin service, with rail stations located in Hanford and Corcoran. Northbound trains make stops in Hanford at 6:12 a.m., 8:32 a.m., 11:36 a.m., 2:41 p.m., 5:06 p.m. and 7:30 p.m. Southbound trains service Hanford at 10:23 a.m., 12:11 p.m., 2:44 p.m., 5:46 p.m., 8:14 p.m. and 10:28 p.m.

CROSS VALLEY RAIL PROJECT

In 1994 the vision of upgrading and renovating the 44 mile east-west San Joaquin Valley Rail line from Huron (Fresno County) to Visalia (Tulare County) was born. The concept was straightforward but had potentially profound benefits:

- Increased opportunities for industrial development, which would improve the economic viability of communities along the corridor.
- Improved air quality as a pair of locomotives can pull the equivalent of 225 trucks.
- Reduction in road maintenance costs due to decreased truck traffic; and
- Improved safety on rural roads based on less truck traffic.

CROSS VALLEY RAIL IMPROVEMENTS

The Cross Valley Rail improvement project was completed in 2003. It cost $14 million for the approximately 44-mile track improvement project between Huron and Visalia. The project is designed to allow food processing and industrial businesses to ship by rail as opposed to heavy-duty trucks. Funding was made possible through funds from public and private entities, including Congestion Mitigation and Air Quality (CMAQ) funds from Tulare, Kings, and Fresno Counties and contributions from the Los Gatos Tomato Company and San Joaquin Valley Air Pollution Control District (SJVAPCD).

HIGH SPEED RAIL

The California High Speed Rail Authority (Authority) is currently in the process of implementing a high speed rail system that would provide passenger transportation as well as goods movement services throughout much of California. Still in the planning stages, numerous environmental studies have, or are currently being assessed. A major component of these studies is to determine the best route available. Recently, the Authority approved a more detailed study be done for a possible station in the Visalia-Tulare-Hanford area. Other corridors are available to the Authority; however, until the next phase is completed, it is unknown the precise corridor which will be approved. Future environmental studies and analysis will be provided by the Authority.

The purpose of the High Speed Rail system is to provide a reliable mode of travel that links the major metropolitan areas of the state and delivers predictable and consistent travel times. According to the Authority, high speed rail is projected to carry as many as 68 million passengers annually by 2020.

Further objectives of the High Speed Rail system are to provide an interface with commercial airports, mass transit hubs, the highway network, and to relieve vehicular capacity constraints of the existing transportation system as intercity travel demand in California increases. Given that the highest growth rate in California's future is in the Central Valley, the need for improved intercity transportation is demonstrated by the insufficient capacity of the existing vehicular transportation system to meet current and expected future travel demand. The need is also reflected in the poor air quality, impaired travel reliability, and increased travel congestion and longer travels times. According to the Authority, in most instances the High Speed Rail is an alternative that would improve the travel options available in the Central Valley and other areas of the state when compared to limited bus, rail, and air service for intercity trips that exist today.

According to the Authority, the cost of this project is estimated to be approximately $40 billion (2008 dollars), depending upon the alignment and the station options selected. The cost

estimate includes right of way, track, guide way, tunneling, stations and mitigation. The right-of-way requirements for expansion of the freeways in the central valley would potentially impact 609 acres of farmlands. The high speed rail, based on the system wide application of a 100 foot right of way, could potentially impact a maximum of 2,096 to 3,002 acres. By reducing the right-of-way to 50 feet could potentially reduce the amount of farmland being taken in the valley. Funding for this project would be in the form of a ballot measure to approve a bond.

After completing the environmental process, should the State of California decide to proceed with the development of the proposed High Speed Rail system, an initial implementation phase of the project would include preliminary engineering and project level environmental review to the extent needed to assess potential environmental impacts not already addressed. Project level environmental review would focus on a portion or portions of the proposed high speed rail system and would provide further analysis of potential impacts and issues at an appropriate level of detail in order to obtain needed permits and to proceed with the project.

In Kings County, several cities, County of Kings and KCAG have passed resolutions of support for the High Speed Rail line that follows the State Route 99 corridor with a stop in or near Kings County. In addition, there is also support for construction of a maintenance station in Tulare/Kings County.

NON-MOTORIZED SYSTEMS

INTRODUCTION

This section identifies non-motorized transportation models including bicycle, pedestrian, and equestrian facilities available to Kings County residents.

METHODS

Data from the 2007 KCAG RTP, 2005 KCAG Regional Bike Plan, and transportation providers was utilized for this section.

KEY TERMS

- Bicycle Facilities. Class I (separate path), Class II (striped lane that shares roadway), or Class III (non-striped path on roadway) bicycle routes that provide bicyclist a place to ride.
- Pedestrian Facilities. Sidewalks, paths, and over-crossings built for pedestrians.

EXISTING CONDITIONS

KCAG adopted the 2005 Kings County Regional Bike Plan to demonstrate a sound planning environment. The current bicycle plan outlines safety concerns, planned improvements, bicycle maps and funding opportunities. The Regional Bicycle Plan identifies various phases of planning and the implementation of bikeway facilities within the urban area boundary. Most transit carriers provide bike racks on buses to enhance the use of transit and bicycling within Kings County. AMTRAK also provides bicycle storage on the train for inter-city travel.

RECREATIONAL WALKWAYS

Kings County has identified railroad right-of-way, within the San Joaquin Valley Railroad, as a viable option for pedestrian and bicycle use. The shared use and development of the Union Pacific railroad, between the Fresno and Tulare County lines, is an innovative way to achieve multiple objectives. The Union Pacific railroad is an example of recreational walkways located in Kings County**.** Construction is underway in Lemoore to complete the shared-use facility. The Union Pacific trail is expected to be a signed route that is intended for pedestrians, bicyclists and equestrian uses. These facilities give people the incentive to walk to places of interest while enjoying a preserved route.

Ultimately the shared-use railroad right-of-way will provide access along one of the county's busiest east-west corridors, Hanford-Armona Road. Along the route, the trail will connect Downtown Hanford, Hanford Mall, Adventure Park, Armona, Lemoore multi-modal center, Lemoore skate-park and West Hills College.

SAFE ROUTES TO SCHOOL

Safe Routes to Schools (SR2S) projects encourage and enable children to walk and cycle to school through a combined package of practical and educational measures.

The SR2S projects also:

- Improve road safety and reduce child casualties;
- Improve children's health and development; and
- Reduce traffic congestion and pollution.

SR2S projects involve:

- The whole school community;
- Local residents;
- Local authorities;

- Health and education workers; and
- Law Enforcement.

Successful SR2S projects are child-centered, build on small steps to raise awareness and change travel behavior and benefit the whole local community by helping to create safer, healthier environments. Active & Safe Routes to School is a national program encouraging the use of active modes of transportation to and from school.

The benefits include:

- Increased physical activity for children and youth;
- A healthier lifestyle for the whole family;
- Less traffic congestion around schools;
- Safer, calmer streets and neighborhoods; and
- Improved air quality and a cleaner environment.

In Kings County cities, communities, school districts, and other agencies are eligible to apply for SR2S funding. One recent SR2S project included pedestrian improvements made on the LNAS for the on-site school. The above text can be referenced with Figures 5-7a and 5-7b.

Figure 5-7a: Regional Bicycle Routes

Figure 5-7b: Regional Bicycle Routes

BICYCLE PATHS

With the onset of air quality attainment strategies and congestion management concerns, bicycling is considered an effective alternative mode of transportation. Bicycling can help improve air quality and reduce the number of vehicles traveling along congested facilities within cities and communities. Kings County offers a relatively level topography that allows for the opportunity to utilize bicycle facilities.

The Rails to Trails program has been effective in turning abandoned railroad tracks into pedestrian/bicycling thruways. Most recently the cities of Lemoore and Hanford are in the planning stages of developing a Rails-with-Trails facility along the SVRR corridor. The intent of the project is to use a portion of the 200' railroad right-of-way to construct a Class I bike path. Cost and railroad concerns will continue to slow this project.

BICYCLE ACCIDENTS

Although the injuries throughout the county are relatively low compared to the statewide average, agencies within Kings County should attempt to make sure that bike routes are safe for the rider and by designating certain bike paths or routes; however, a certain amount of liability is under taken by the city and/or county. Bike routes are made based on the amount of safety a bicyclist can achieve his/her destination. Table 5-5 identifies accident data for the four cities and unincorporated communities in Kings County as shown in Table 5-5.

TABLE 5-5. STATEWIDE INTEGRATED TRAFFIC RECORDS SYSTEM BICYCLE ACCIDENT DATA 2000-2004

Jurisdiction	No. of Accidents	Bicyclists Age		Gender	
		<15	16+	M	F
Avenal	5	4	1	5	0
Corcoran	8	2	6	7	1
Hanford	111	35	76	89	22
Lemoore	25	14	11	20	5
Kings County	23	12	17	22	1
TOTAL	172	67	111	143	29

Source: 2005 Kings County Regional Bicycle Plan (June 22, 2005).
Definitions: M – male rider, F – female rider

AVIATION SYSTEM

INTRODUCTION

In this section, the existing airport facilities within the county are described. This section includes a discussion of airport types and locations.

METHODS

The Kings County Aviation Element and Airport System Plan, Central California Aviation System Plan (CCASP), 2007 KCAG RTP, and local circulation elements were obtained in order to reference existing conditions.

KEY TERMS

- Military. Airports owned by Federal agencies, such as the Lemoore Naval Air Station.
- Public Airport. Airports owned by public agencies, such as a city or county.

- Public Airport with Special Use. Publicly owned airports that allow special uses such as crop dusting activities.
- Private Airport. Privately owned and operated airport.

EXISTING CONDITIONS

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). 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; 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.

The primary airports are described in detail in the following paragraphs:

- Hanford Municipal Airport: Serving the majority of aviation demand is the Hanford Municipal Airport. The Hanford 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. There is one charter service available and approximately 70 aircraft are based at the airport. Hanford Municipal Airport is located on 295 acres at 9 ½ Avenue and Hanford-Armona Road. The City of Hanford acquired the site in 1950 by using federal and state monies. Today, the facility consists of one runway that is 5,180 feet in length; a 75-foot wide paved taxiway; several conventional hangers and tee shelters; and medium intensity runway lights. All types of General Aviation aircraft use the facility including recreation and business aircraft. The average daily aircraft operation in 2005 was approximately 38 with 30% of those being single engine propeller aircraft. Annual operations are forecasted to be 13,800 and the number of based aircraft is expected to be 128 in 2025. The City of Hanford released an updated master plan in May 2007.

- Corcoran Airport: Serving as a basic utility airport with 16 based planes, Corcoran Airport is the second busiest airport in Kings County. The airfield is located on the west side of Corcoran on Whitley Avenue and occupies 220 acres. The airport offers an asphalt runway with a parallel taxiway. Under private ownership of Lakeland Dusters Inc., the airfield is used primarily by a fleet of crop dusters. Approximately 5,000 operations originate from the field at present. Single engine propeller aircraft traffic will increase to 8,100 and the number of based aircraft are expected to be 33 by the year 2020 (Caltrans). The distribution of aircraft operations by aircraft will be 50 percent crop dusters, 45 percent single-engine propeller aircraft and five percent twin-engine aircraft by 2020. Low-intensity runway lighting is available upon request and all aircraft operate in daylight hours from 7:00 a.m. to 7:00 p.m. There are accommodations for a total of 20 aircraft to be parked at the airport.

Figure 5-8a: Existing Airports

Figure 5-8b: Existing Airports

- Avenal Airport: Located west of the city off of State Route 33, the Avenal Airport is operated by the Central Valley Soaring Club. Prior permission is required for public use of this facility. Avenal Airport encompasses 83 acres including one runway consisting of compacted earth with some stabilization. Two 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 problem.

- Lemoore Naval Air Station: The LNAS is one of only four Navy master jet bases in the United States and is the home port for light-attack squadrons assigned to the Pacific Fleet. The station is located in the western portion of Kings County. LNAS occupies 18,784 acres and controls and additional 10,020 acres in air space. The airfield consists of two offset parallel runways, each 13,500 feet by 200 feet, with a separation of 4,600 feet. In 2005, aircraft operations at LNAS totaled 161,000. As an indicator of the stations importance to Kings County, LNAS is the largest employer in Kings County, providing work for over 1,200 civilians and about 5,000 military personnel. The station also spent over $10 million in maintenance and operations in 2005 alone. It is estimated that the total annual economic input of the base to Kings County's economy is over

$82 million based on payroll alone. The 2006 estimated daytime population at LNAS is 11,286 and 8,100 at night.

Of the airports in the county, only Hanford airport generates significant air traffic for the county's circulation system. Figures 5-8a and 5-8b show the types and locations of the Kings County airports. The only passenger air service within the vicinity is located in Visalia, in neighboring Tulare County. This service offers flights from Visalia airport to Las Vegas Airport (LAS) and Merced Airport with connections to other destinations.

GOODS MOVEMENT

INTRODUCTION

This section discusses traditional ways that goods are transported in Kings County. Heavy-duty trucks account for the majority of goods movement in Kings County with rail providing the regional shipment mode.

METHODS

The 2007 KCAG RTP was the primary source used to obtain data related to goods movement in Kings County. In addition, the Caltrans and California Trucking Association (CTA) websites were researched.

KEY TERMS

- Surface Transportation Assistance Act (1982) (STAA). Surface Transportation Assistance Act (1982). This act established a National Network of long haul truck routes. These routes are also called Terminal Access Routes.
- Heavy-Duty Truck. Any truck that has a gross vehicle weight that is more than 8,500 pounds.

EXISTING CONDITIONS

Agricultural and industrial land uses are the principal generators of truck traffic in the county. Since agriculture is a relatively mature industry in the county, overall truck traffic generated by agricultural uses should remain stable in the future. However, relocation and replacement of individual agricultural processing plants and other new industries can significantly alter both regional and localized patterns and concentrations of truck traffic within cities and unincorporated communities. As continued industrial growth is expected to increase within the county, the scale of industrial-related truck traffic will continue to increase.

One interstate and five state facilities in Kings County are designated (STAA) routes or terminal access routes. Interstate 5 and State Route 198 are designated as National Network routes. State Route 33, State Route 41, State Route 43, State Route 269 are designated as Terminal Access routes. STAA routes permit a single trailer with a 48-foot maximum length or double trailers with a maximum length of 28 ½ feet (each trailer).

Portions of State Routes 137 (east of Corcoran) which is predominantly located in rural areas are designated as STAA Advisory Routes. This designation means that travel is not advised for trailers longer than 38 feet. In general, city streets and county roads are not included in the STAA network.

According to Caltrans, the percentage of heavy duty trucks on State highways ranges by location. For instance, the vehicle composition on Interstate 5 contains 30 percent heavy duty trucks and State Route 33 contains 8 percent heavy duty trucks. Many of the truck trips on Interstate 5 are not generated by trucks in Kings County; rather they are inter-regional with origins and destinations generally north and south of Kings County. A list of facilities and heavy duty truck percentages is listed below:

- Interstate 5 – 30 percent heavy vehicles;
- State Route 33 – 8 percent heavy vehicles;
- State Route 41 – 18 percent heavy vehicles;
- State Route 43 – 28 percent heavy vehicles;
- State Route 137 – 18 percent heavy vehicles; and
- State Route 198 – 16 percent heavy vehicles.

Types and locations of freight terminals in Kings County are as diverse as the commodities that are produced here. Many of the terminals are agriculture based in the form of packing and processing plants. These facilities are spread throughout the county. There are fruit and vegetable related facilities in the northern portions of the county and many of these are located along rail lines or spurs. There are cotton gins and other grain facilities located in the Corcoran area. Economics dictate the most efficient use of trucks, but cooperation and communication between operators, terminals, trucking associations and transportation planners ensures the most efficient use of resources.

Figure 5-9: Existing Truck Routes

NAFTA CROSS BORDER TRUCKING REGULATIONS

According to the General Accounting Office, cross-border traffic has soared 170 percent since NAFTA went into effect, with more than 4.2 million truck crossings in 1999 and 4.8 million trucks in 2006.

This corridor has shown a dramatic growth in vehicle traffic since NAFTA was implemented in 1994. Prior to NAFTA, 15,000 to 20,000 trucks crossed the border via this route in an average year. With this increase in traffic, existing facilities and infrastructure have been overwhelmed, resulting in lengthy delays for vehicles waiting to clear customs and inspection.

Trucks, notorious as heavy emitters of nitrogen oxides and soot-like particulates, can idle for hours while waiting to cross the border. Moreover, once they do so, their sheer numbers are severely congesting the roadways in Texas and California, further exacerbating air quality problems.

More than 4.4 million trucks enter the United States from Mexico every year, but they are now required to stay within 20 miles of the border (also known as the Port-of-Entry Commercial Zones). The federal government estimates the most recent court decision would allow more Mexican Trucks to enter the United States and travel farther into the country. The latest court decision allows certified Mexican trucks to travel beyond the original Port-of-Entry Commercial Zones on federal highways as well as into municipalities. National special interest groups oppose the extended service areas of the trucks based on air quality and labor union concerns.

TRANSPORTATION SYSTEM MANAGEMENT/TRANSPORTATION DEMAND MANAGEMENT

INTRODUCTION

This section discusses strategies to increase roadway capacity without relying on major construction improvements.

METHODS

The KCAG RTP was used to obtain data regarding Transportation Systems Management (TSM) and Transportation Demand Management (TDM) programs in Kings County.

KEY TERMS

- Traffic Signal Synchronization. Coordinating traffic signals (more than one) that are within a close proximity in order to enhance vehicular progression on roadways, minimize delay and continual starts/stops.

EXISTING CONDITIONS

TSM provides for short-range transportation strategies designed to improve the movement of people, goods and the operational efficiency of the existing transportation system at minimal cost. The TSM strategies that are currently implemented in the cities within Kings County on an on-going basis include traffic signal synchronization, provision of left-turn, parking and access management, and similar traffic engineering treatments that maximize the use of existing streets and roads without major construction. These improvements have increased the overall capacity of the highway system in Kings County without the provision of major capital expenditures.

TRANSPORTATION DEMAND MANAGEMENT

TDM consists of managing behavior regarding how, when and where people travel. TDM strategies are designed to reduce vehicular trips during peak hours by shifting trips to other modes of transportation and reduce trips by providing jobs and housing balance. TDMs are specifically targeted at the work force that generates the majority of peak hour traffic. Kings County participates in the *Central Valley Ridesharing* outreach program, which is designed to educate employers and employees toward the benefits of TDMs. Some of the TDM strategies include the following techniques:

- Rideshare programs;

- Transit usage;
- Flex hours;
- Vanpools;
- Bicycling & walking;
- Telecommuting; and
- Mixed land uses.

Through education, TDM strategies can be implemented and utilized in the circulation system. However, in order to change peoples traveling habits, employers must suggest transportation alternatives such as encouraging employees to reduce vehicle single occupant trips.

APPLICABLE REGIONS

In Kings County, the areas with the most severe traffic congestion and which are potential candidates for TDM strategies include the Cities of Hanford and Lemoore. The City of Hanford, with an estimated 2007 population of over 50,370, has the highest peak hour congestion in the County. The City of Lemoore has an estimated 2007 population of over 24,098. Trips generated between industries and employment in Hanford and Lemoore contribute to the congestion on the State Route 198 and the Lacey Boulevard and Grangeville Boulevard corridors during peak hours. The City of Corcoran, with an estimated 2007 population of approximately 25,417 individuals, comprised of 12,480 residents and 12,937 state prison inmates, is also beginning to show signs of congestion on portions of State Route 43 as well as other principle streets. These regions in the county have the highest potential to experience severe traffic congestion and are prime candidates to utilize TDM strategies. KCAG currently encourages these cities to study TDM strategies and take advantage of available programs to implement such strategies in their communities.

STRATEGIES

A valuable TDM resource is available to the county and cities. KCAG actively educates and encourages employers to inform their employees about alternatives for transportation. KCAG provides its member agency with TDM programs such as the Central Valley Rideshare outreach program, which matches compatible commuters. As a tool to reduce congestion and environmental improvements the SJVAPCD, KCAG, and local agencies endorse TDM strategies. Employers are encouraged to endorse the following TDM strategies:

- Economic incentives;
- Regulatory parking spaces; locker rooms and showers (for pedestrians and bikers);
- Satellite work stations;
- Institute flexible work hours;
- Subsidize transit cost;
- Award extra times off; and
- Join a Transportation Management Agency (TMA).

RURAL ROAD REPAIR

INTRODUCTION

This section addresses the status of the county's rural roads. The current physical status of the county roadways is noteworthy. Due to a significant reduction of available funding for road maintenance over the past two decades, the county has not been able to adequately maintain its roadway system. This is critical for the agricultural industry that uses these roads for farm-to-market trips and also significantly contributes to the roads dilapidation.

METHODS

Information for this section was primarily gathered from Kings County and the Caltrans.

KEY TERMS

There are no key terms for this section.

EXISTING CONDITIONS

Kings County Roads Department is charged with maintaining approximately 955 miles of county roads, 106 bridges and many culvert and pipe crossings. In order to determine maintenance priority, Kings County uses a prioritization system based on the highest demand and safety concerns.

COMMUTE MODES OF TRANSPORTATION

INTRODUCTION

The purpose of this section is to provide information related to commuter patterns throughout the county. Specific information is provided for cities; however, information pertaining to unincorporated communities is not as detailed. Overall, a general commute pattern between the cities within Kings County is summarized.

METHODS

The information presented is based upon 2001 California Household Travel Survey.

KEY TERMS

There are no key terms for this section.

EXISTING CONDITIONS

Table 5-6 shows the mode choice of commuters in Kings County based upon the 2001 California Statewide Household Travel Survey. This table also identifies the duration of travel to work.

TABLE 5-6. TRANSPORTATION TO WORK IN KINGS COUNTY

% Car, truck or van to work	94 %
% Public transportation to work	0.5 %
% Other transportation to work	5.5 %
% Travel time less than 15 minutes	46 %
% Travel time 15-29 minutes	28 %
% Travel time 30-59 minutes	20 %
% Travel time 60+ minutes	6 %

Source: 2001 California Household Travel Survey (January 2007)

As shown in Table 5-6, the majority of commuter trips are vehicular in nature. Public transportation only makes up for one-half of a percent for commuters. Table 5-6 also indicates that nearly 75 percent of commuters spend less than 29 minutes to travel to/from work. Only 6 percent have travel times greater than an hour; these are likely jobs outside of the county.

MAJOR TRIP ATTRACTORS

INTRODUCTIONS

This section provides the latest information pertaining to large employers in Kings County. As expected, the major employers are located in cities that contain major employers. However, the employees must utilize county roads to travel between jurisdictions. Therefore, Kings County must work with the cities to accommodate commuter traffic patterns.

METHODS

Data was collected through the US Census Bureau and local chambers of commerce.

KEY TERMS

There are no key terms for this section.

EXISTING CONDITIONS

Table 5-7 shows Kings County's top employers by jurisdiction. The table does not provide data relating to government employment. Unsurprisingly, many of these industries are related to agricultural industries.

TABLE 5-7. KINGS COUNTY TOP EMPLOYERS

City of Hanford	No. of Employees
Baker Commodities	40
Beco Dairy Automation	20
Britz Fertilizers	24
CALCOT LTD.	31
Central Valley Meat	270
Conagra Foods	250
Del Monte Food	1,400
Exopack	181
Fagundes Agribusiness	25
Hanford Sentinel	85
Helena Chemical	26
International Paper	112
Kings Waste & Recycling Authority	200
Marquez Brothers	306
McLellan Industries	67
Morgan & Slates	38
Netto Ag	111
Penny Newman Milling	48
South Valley Materials	25

TABLE 5-7. KINGS COUNTY TOP EMPLOYERS

Thresher Industries	21
Valley Pallet	20
Verdegaal Brothers	30
Wal-Mart Pharmacy Warehouse	29
Warmerdam Packing	250
Western Farm Service	20
City of Lemoore	**No. of Employees**
Agusa, Inc.	18
Crisp Warehouse	10
Leprino Foods – East	291
Leprino Foods - West	327
SK Foods	120-500 Seasonal
Viking Ready Mix	50
City of Corcoran	**No. of Employees**
Bioproducts	19
Calarco Inc.	35
Camfil Farr Company	52
CDR Systems	40
Corcoran Machine Works	24
Gilkey Enterprises	50
Hansen Farms	20
Homac Mfg.	92
JG Boswell Company	1,200
Lakeland Dusters	20
Midstate Precast	40
Mt. Whitney Packing	120
Proctor-Crookshanks	50
Sawtelle & Rosprim	35
Quinn Company	21
City of Avenal	**No. of Employees**
Keenan Farms	100
Unincorporated Areas	**No. of Employees**
Central Valley Cabinet	12
Chemical Waste Management	87

Source: Kings County Economic Development Website (January 2008).

As shown in Table 5-7, major employers in Kings County range from retail department stores to major corporate companies. Many industrial companies also employ hundreds of Kings County's residents.

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TECHNICAL MEMORANDUM

To:	Kings County Planning Department	**Date:**	August 7, 2008
Attn:	Greg Gatzka	**Project:**	Kings County Circulation Element Update
From:	Dennis Mills, Gary Mills		
Re:	Kings County Circulation Update – 13th Avenue Interchange	**Job No.:**	55-1740-01
		File No.:	C1255MEM002.DOC
CC:	Jeremy Kinney, Kings County Planning Department; Terri King, KCAG		

INTRODUCTION

The County of Kings is located in the south-central portion of the San Joaquin Valley and is comprised of 1,396 square miles. Kings County is one of eight counties that form 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. The San Joaquin Valley is the richest farmland in the world and Kings County's farm land area is level irrigated farmland that averages over $1 billion a year in commercial crop production.

OMNI-MEANS is under contract with the County of Kings to update and refine the Kings County Circulation Element of the General Plan. This technical memorandum has been prepared to present the results of traffic analysis performed by OMNI-MEANS for the use in determining the future traffic volumes, potential alignment alternatives and expected investment needed for an improved interchange at State Route 198/13th Avenue.

EXISTING TRAFFIC VOLUMES

Based upon discussions with Kings County and our knowledge of the study area, the following intersections were identified as critical for purposes of this memorandum.

- Front Street/13th Avenue
- 13th Road/13th Avenue
- State Route 198 WB Off Ramp/13th Avenue
- State Route 198 WB On Ramp/Hanford-Armona Road
- State Route 198 EB Ramps/Hanford-Armona Road
- Hanford-Armona Road/13th Avenue
- Hood Avenue/13th Avenue

Existing weekday AM and PM peak-hour traffic volume counts were conducted at the study intersections by OMNI-MEANS on June 3, 2008, when school was in session. The AM peak hour is defined as one-hour of peak traffic flow counted between 7:00 AM and 9:00 AM and the PM peak hour is defined as one-hour of peak traffic flow counted between 4:00 PM and 6:00 PM.

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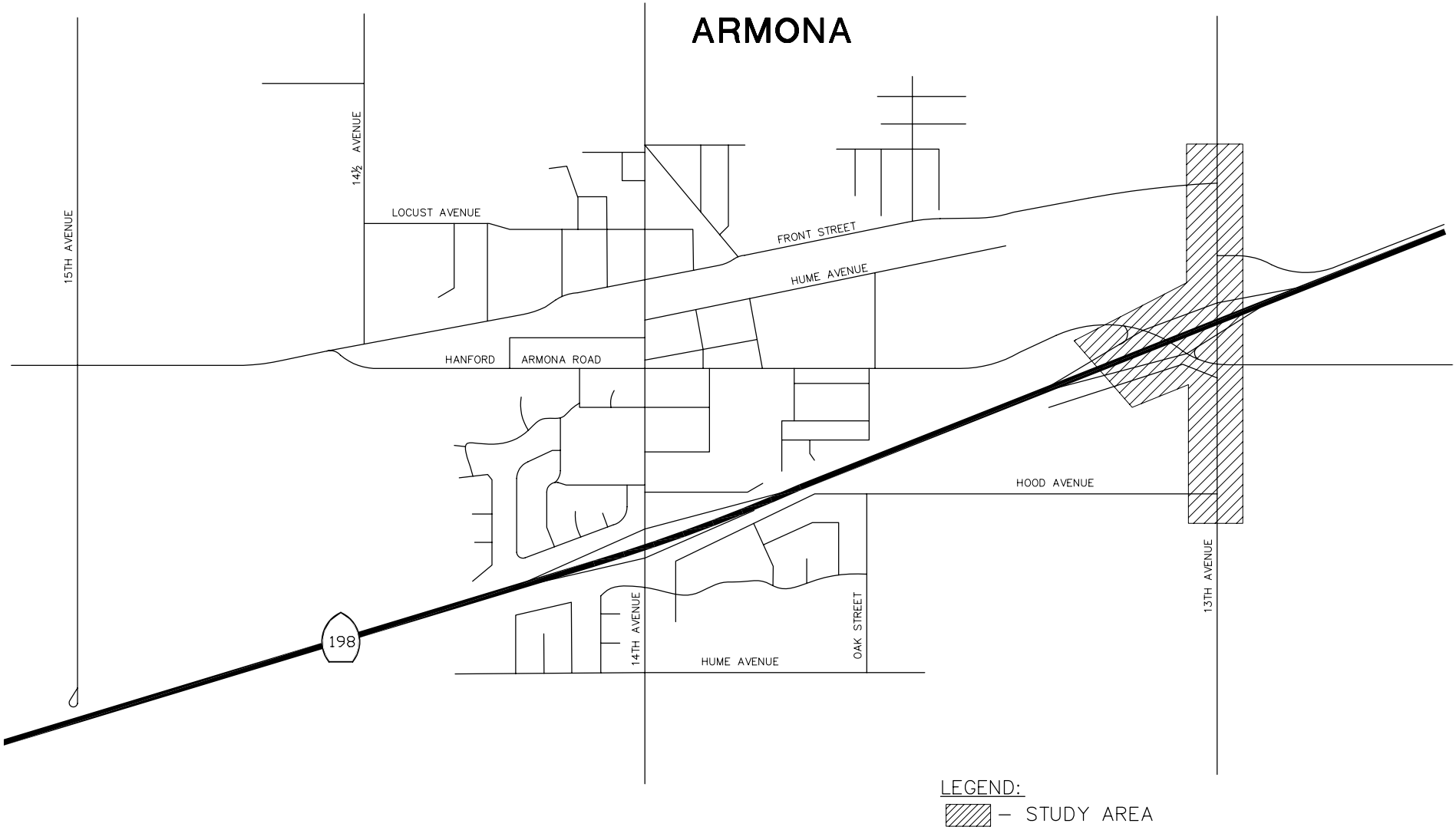

State Route 198/13th Avenue Interchange Analysis

Figure 1

Vicinity Map

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LEVEL OF SERVICE METHODOLOGY

Traffic operations have been quantified through the determination of "Level of Service" (LOS). Level of Service is a qualitative measure of traffic operating conditions, whereby a letter grade "A" through "F" is assigned to an intersection or roadway segment representing progressively worsening traffic conditions. Levels of Service were calculated for different intersection control types using the methods documented in the *2000 Highway Capacity Manual*. Levels of Service definitions for different types of intersection controls are outlined in Table 1.

The Kings County Circulation Element has designated LOS "D" as the minimum acceptable LOS standard on City facilities in general. In this report, a peak-hour LOS of "D" is taken as the threshold for acceptable traffic operations at all study intersections and roadways. All intersection turning movement volumes and LOS worksheets are contained in the Appendix.

To determine whether "significance" should be associated with unsignalized intersection LOS, a supplemental traffic signal warrant analysis was also performed. The signal warrant criteria employed for this study are presented in the *Manual on Uniform Traffic Control Devices* (MUTCD). Specifically, this study utilized the Peak-Hour Warrant 3. Though utilization of this warrant may indicate that signalization would be required, the final decision to provide this improvement should be based on further studies utilizing the additional warrants presented in MUTCD.

This traffic analysis generally provides a "planning level" evaluation of traffic operating conditions, which is considered sufficient for California Environmental Quality Act/National Environmental Policy Act (CEQA/ NEPA) purposes. This planning level evaluation has also incorporated appropriate heavy-vehicle adjustment factors, peak hour factors, and reports the resulting intersection delays and LOS as estimated using HCM-2000 methodologies. In this study, the Peak Hour Factor (PHF) has been calculated and is applied in the analysis of all study intersections under all scenarios. The *Traffix 7.9* and *Synchro 6.0* integrated computer software programs have been utilized to implement the HCM-2000 analysis methodologies.

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TABLE 1
LEVEL OF SERVICE CRITERIA
FOR INTERSECTIONS

Level of Service	Type of Flow	Delay	Maneuverability	Stopped Delay/Vehicle (sec)		
				Signalized	Unsignalized	All-Way Stop
A	Stable Flow	Very slight delay. Progression is very favorable, with most vehicles arriving during the green phase not stopping at all.	Turning movements are easily made, and nearly all drivers find freedom of operation.	≤ 10.0	≤ 10.0	≤ 10.0
B	Stable Flow	Good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.	Vehicle platoons are formed. Many drivers begin to feel somewhat restricted within groups of vehicles.	>10 and ≤ 20.0	>10 and ≤ 15.0	>10 and ≤ 15.0
C	Stable Flow	Higher delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant, although many still pass through the intersection without stopping.	Back-ups may develop behind turning vehicles. Most drivers feel somewhat restricted	>20 and ≤ 35.0	>15 and ≤ 25.0	>15 and ≤ 25.0
D	Approaching Unstable Flow	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume-to-capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	Maneuverability is severely limited during short periods due to temporary back-ups.	>35 and ≤ 55.0	>25 and ≤ 35.0	>25 and ≤ 35.0
E	Unstable Flow	Generally considered to be the limit of acceptable delay. Indicative of poor progression, long cycle lengths, and high volume-to-capacity ratios. Individual cycle failures are frequent occurrences.	There are typically long queues of vehicles waiting upstream of the intersection.	>55 and ≤ 80.0	>35 and ≤ 50.0	>35 and ≤ 50.0
F	Forced Flow	Generally considered to be unacceptable to most drivers. Often occurs with over saturation. May also occur at high volume-to-capacity ratios. There are many individual cycle failures. Poor progression and long cycle lengths may also be major contributing factors.	Jammed conditions. Back-ups from other locations restrict or prevent movement. Volumes may vary widely, depending principally on the downstream back-up conditions.	> 80.0	> 50.0	> 50.0

References: 2000 Highway Capacity Manual

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EXISTING TRAFFIC OPERATIONS

Existing peak-hour intersection traffic operations were quantified applying existing traffic volumes (reference Figure 2) and existing intersection lane geometrics and control (shown on Figure 3). Table 2 presents the existing peak hour intersection LOS.

TABLE 2
EXISTING CONDITIONS:
INTERSECTION LEVELS-OF-SERVICE

			AM Peak Hour			PM Peak Hour		
	Intersection	**Control Type**	**Delay (sec/veh.)**	**LOS**	**Warrant Met?**	**Delay (sec/veh)**	**LOS**	**Warrant Met?**
1	Front Street/13th Avenue	TWSC	11.4	B	No	11.9	B	No
2	13th Road/13th Avenue	TWSC	10.6	B	No	10.2	B	No
3	State Route 198 WB Off Ramp/13th Avenue	TWSC	10.5	B	No	11.5	B	No
4	State Route 198 WB On Ramp/Hanford-Armona Road	TWSC	24.4	C	No	16.2	C	No
5	State Route 198 EB Ramps/ Hanford-Armona Road	TWSC	13.2	B	No	13.7	B	No
6	Hanford-Armona Road/13th Avenue	TWSC	11.7	B	No	12.0	B	No
7	Hood Avenue/13th Avenue	TWSC	8.9	A	No	9.1	A	No

Legend: *TWSC = Two-Way-Stop Control.*
Average Delay = Worst-Case Intersection Movement Delay for TWSC Intersections.
LOS = Worst-Case Movement's Level-of-Service for TWSC Intersections.
Warrant = MUTCD Peak-Hour Warrant-3.

As indicated in Table 2, all of the study intersections are currently operating at LOS "C" conditions or better during both the AM and PM peak hour periods. These stop-controlled intersections currently do not meet the MUTCD Peak-Hour Warrant 3 under "Existing" AM or PM peak hour traffic conditions.

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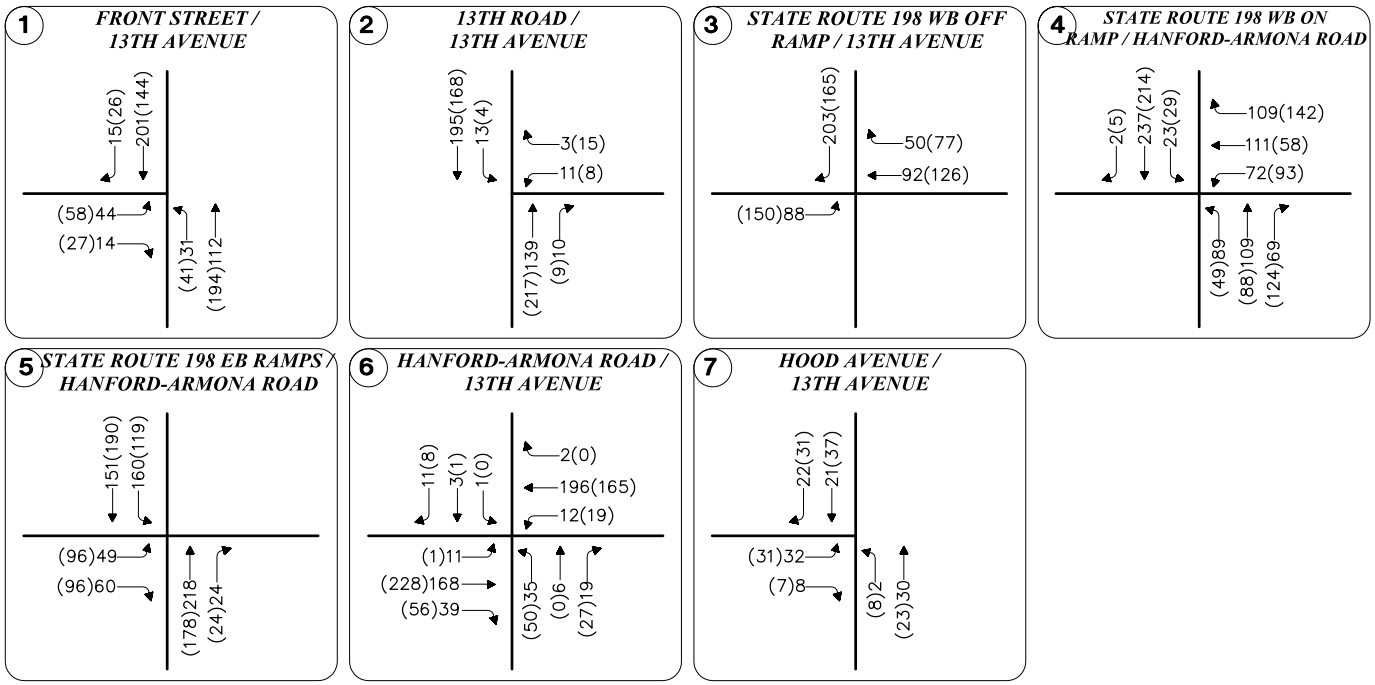
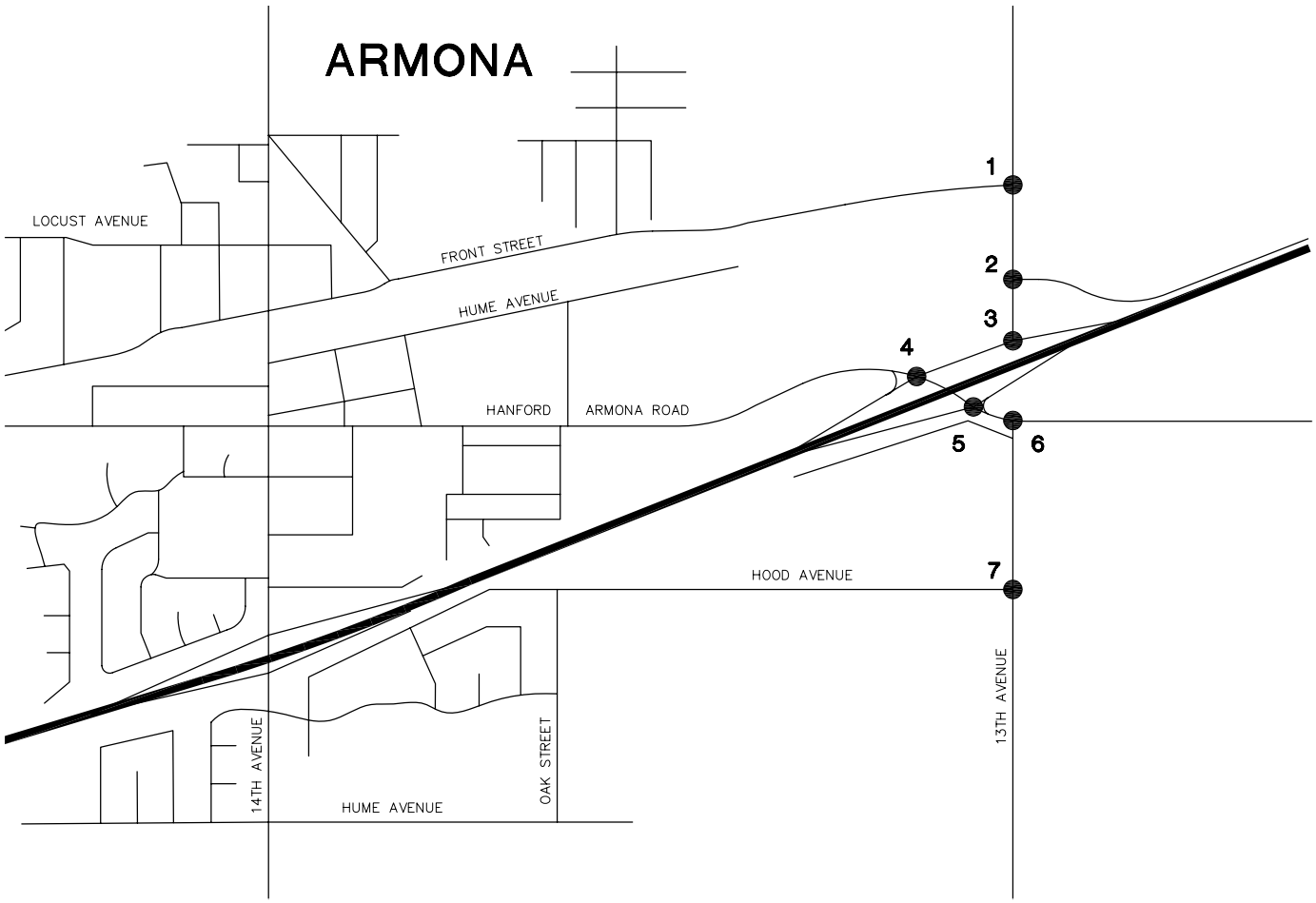


LEGEND:

XX – AM PEAK HOUR VOLUMES

(XX) – PM PEAK HOUR VOLUMES



State Route 198/13th Avenue Interchange Analysis Figure 2

Existing Traffic Volumes

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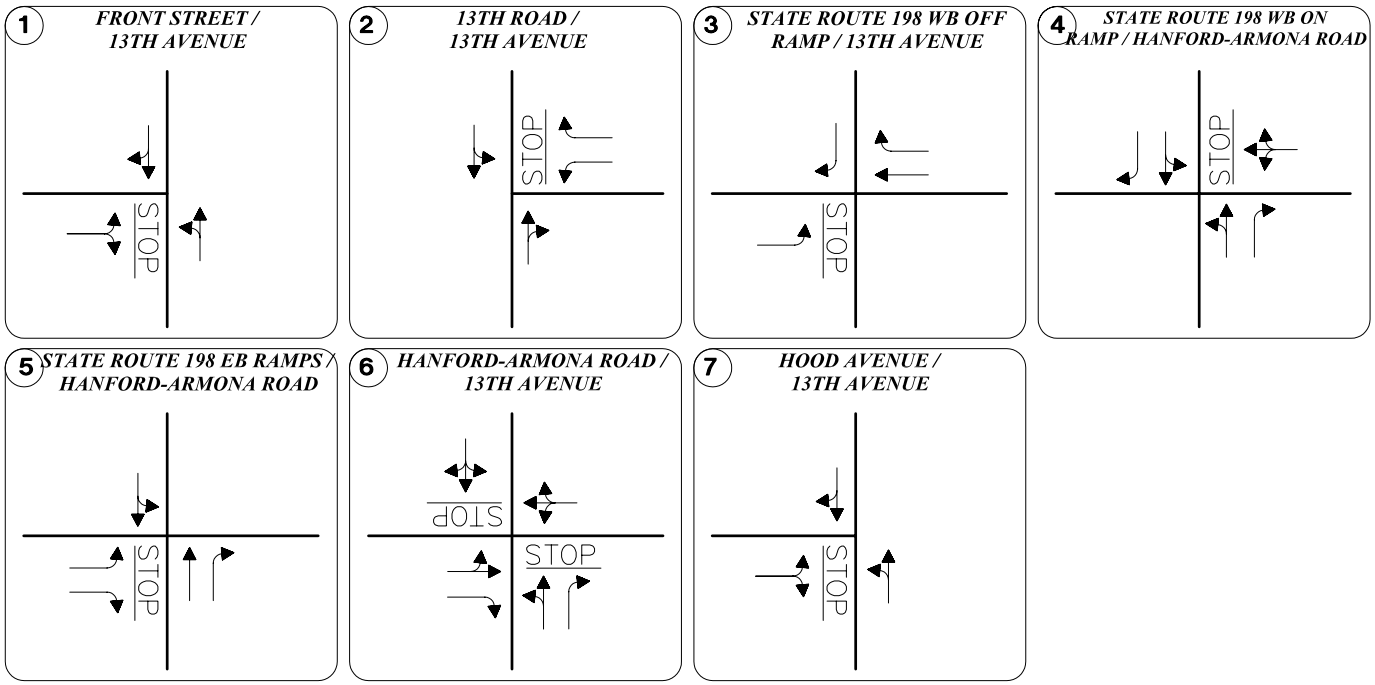
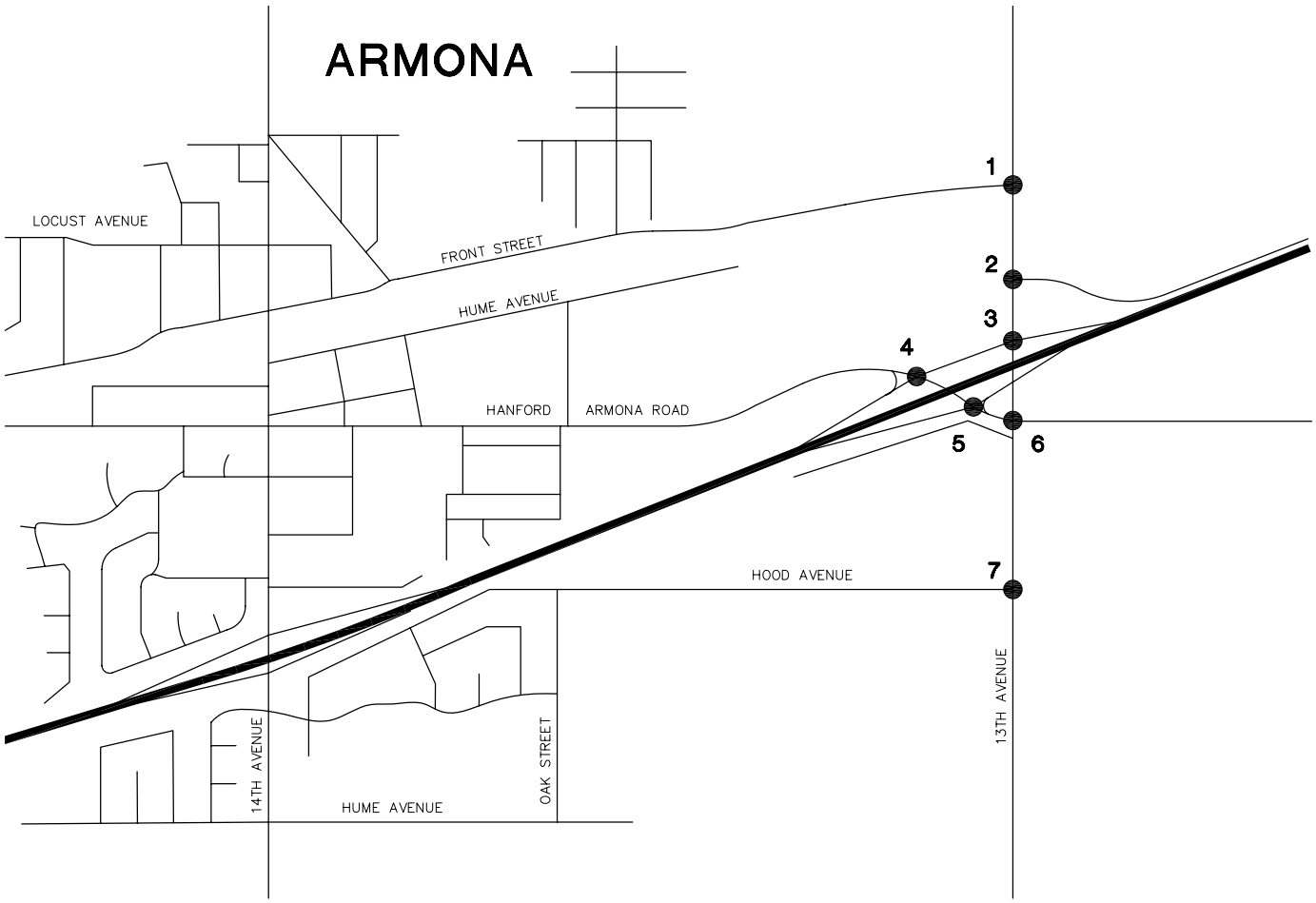


LEGEND:

XX – AM PEAK HOUR VOLUMES

(XX) – PM PEAK HOUR VOLUMES



State Route 198/13th Avenue Interchange Analysis Figure 3

Existing Lane Geometrics and Control

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FUTURE CONDITIONS

GENERAL

Year 2030 Base AM and PM daily traffic forecasts were provided by Kings County Association of Governments (KCAG) via Dowling Associates. OMNI-MEANS worked with Kings County Planning Department to make sure that the latest planning assumptions were included in the KCAG Regional Travel Demand Forecast Model. Specifically, the *2008 Armona Community Plan* land use assumptions were incorporated into the Model.

OMNI-MEANS also worked with Dowling Associates staff to develop future year (2035) traffic volumes utilizing the Model, which uses *Viper/TP+ (CUBE)* software. Although KCAG has a peak hour model, it was not utilized for the future analysis. OMNI-MEANS used the daily directional traffic counts at each leg of the intersection to balance the turning movement counts. The turning movement counts were computed using techniques provided in National Cooperative Highway Research Program (NCHRP 255) through the use of TurnsW32 computer application. Based upon future trip "ins" and "outs" for each leg of the intersection, TurnsW32 runs several iterations to calculate future daily traffic volumes by turning movement. Following this process, OMNI-MEANS checked the forecasted turning movements for reasonableness and made adjustments where necessary. Applying *Traffix 7.9* and *Synchro 6.0* computer software programs, "Year 2035 Base" peak hour traffic conditions were analyzed using 2035 cumulative traffic at the study intersections.

YEAR 2035 BASE TRAFFIC OPERATIONS

Year 2035 Base peak-hour intersection traffic operations were quantified applying Year 2035 Base traffic volumes (shown on Figure 4) and existing intersection lane geometrics and control (identified previously on Figure 3). Table 3 presents the peak hour intersection LOS under Year 2035 Base conditions.

TABLE 3
FUTURE CONDITIONS:
INTERSECTION LEVELS-OF-SERVICE

			AM Peak Hour			PM Peak Hour		
	Intersection	**Control Type**	**Delay (sec/veh.)**	**LOS**	**Warrant Met?**	**Delay (sec/veh)**	**LOS**	**Warrant Met?**
1	Front Street/13th Avenue	TWSC	OVRFL	F	Yes	OVRFL	F	Yes
2	13th Road/13th Avenue	TWSC	OVRFL	F	Yes	94.9	F	Yes
3	State Route 198 WB Off Ramp/13th Avenue	TWSC	OVRFL	F	Yes	OVRFL	F	Yes
4	State Route 198 WB On Ramp/Hanford-Armona Road	TWSC	OVRFL	F	Yes	OVRFL	F	Yes
5	State Route 198 EB Ramps/Hanford-Armona Road	TWSC	OVRFL	F	Yes	OVRFL	F	Yes
6	Hanford-Armona Road/13th Avenue	TWSC	63.5	F	No	78.7	F	No
7	Hood Avenue/13th Avenue	TWSC	9.7	A	No	11.2	B	No

Legend: *TWSC = Two-Way-Stop Control.*
Average Delay = Worst-Case Intersection Movement Delay for TWSC Intersections.
LOS = Worst-Case Movement's Level-of-Service for TWSC Intersections.
Warrant = MUTCD Peak-Hour Warrant-3.
OVRFL = Overflow Conditions (> 100 seconds delay).

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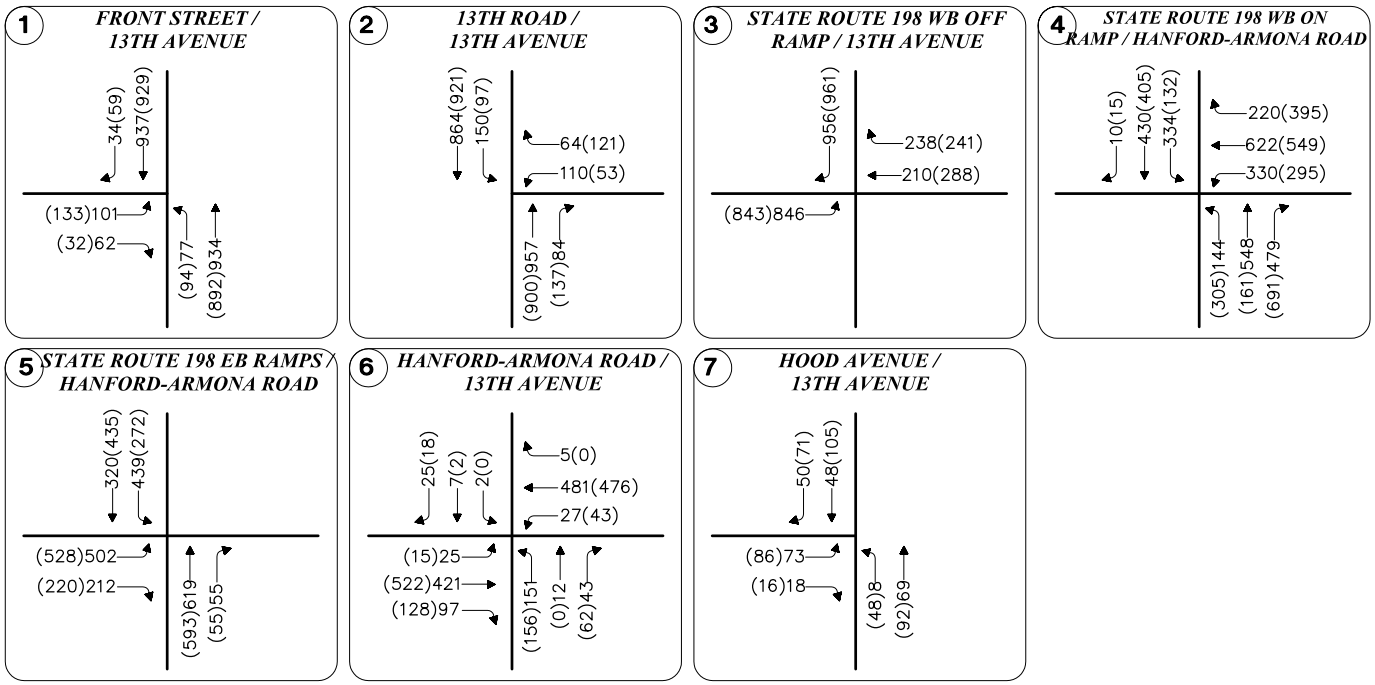
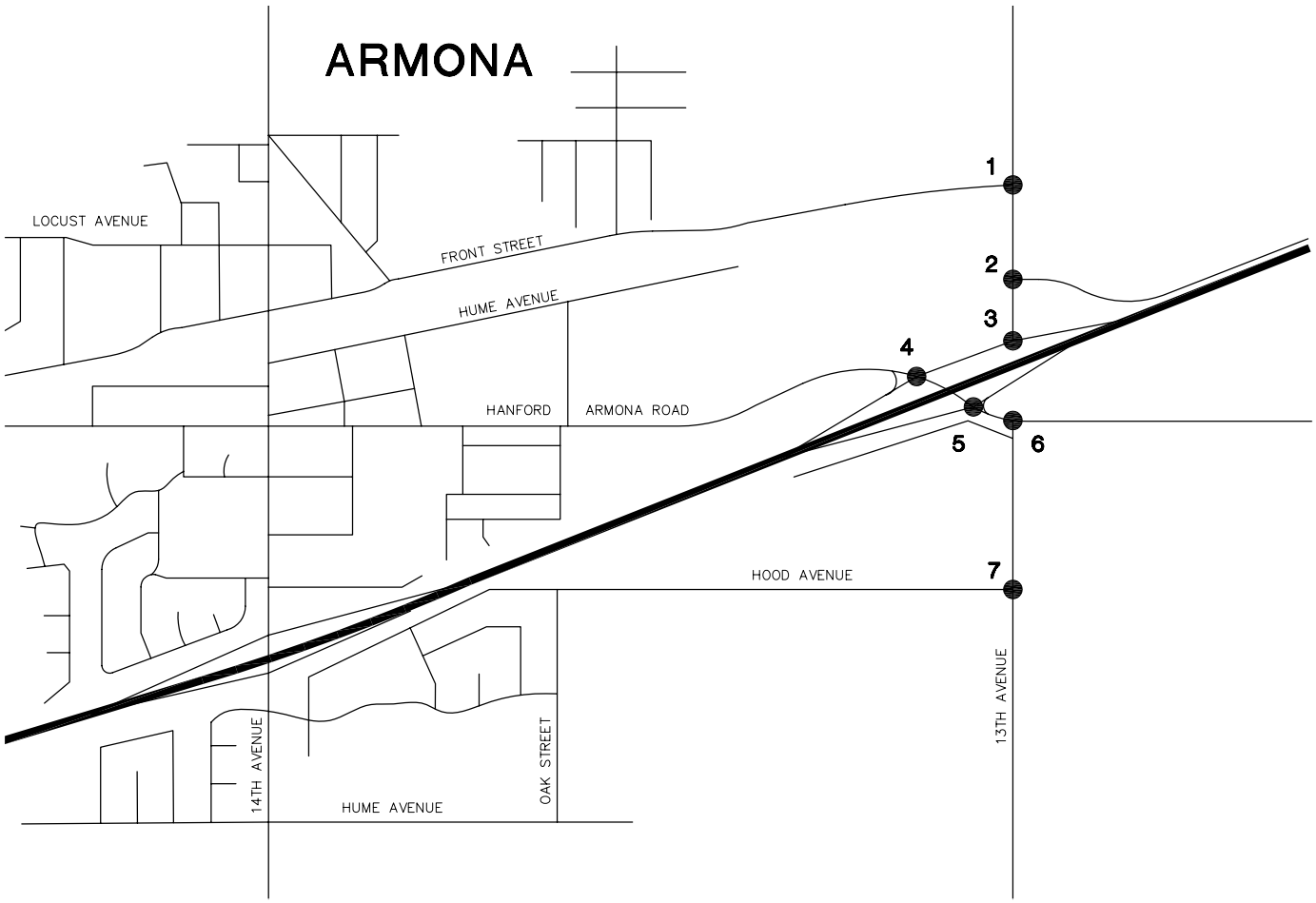


LEGEND:

XX – AM PEAK HOUR VOLUMES

(XX) – PM PEAK HOUR VOLUMES



State Route 198/13th Avenue Interchange Analysis Figure 4

Year 2035 Traffic Volumes

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As shown in Table 3, six of the seven study intersections are forecasted to operate at LOS "F" conditions during both the AM and PM peak hour period under the Year 2035 scenario. In addition, five of the seven study intersections are projected to meet the MUTCD Peak Hour Warrant under this scenario. This is a result of increased traffic volumes and no improvements to the lane geometrics and control beyond existing conditions.

All mitigation measures are discussed in the following section of this memorandum.

RECOMMENDED MITIGATION MEASURES

Traffic conditions at the State Route 198 and 13th Avenue interchange currently operate at acceptable LOS "C" or better under the AM and PM peak hour scenario. However, in 2035 it is projected that the interchange and associated intersections will fail to operate at acceptable traffic operation thresholds established by the Kings County Circulation Element.

Based upon information provided by Kings County, a conceptual design has been developed during past meetings with Caltrans. The selection of an interchange type and design are influenced by many factors including: the speed, volumes, composition of traffic, number of intersecting legs, local street network, traffic control devises, topography, right of way controls, local planning, proximity of adjacent interchanges, community impact and cost. The proposed design identified in the *2008 Armona Community Plan* consists of a Type L-1 (diamond) for the westbound movements and a Type L-9 (partial cloverleaf) for the eastbound movements. OMNI-MEANS analyzed the proposed alternative using *Syncro 6* and determined that this configuration is recommended to be pursued. Based upon the results of this analysis, these interchange modifications, i.e., widening and traffic signals, result in acceptable traffic operating conditions.

The cost estimates provided for interchange improvements range from $25 million to $30 million. That is a significant investment for the County of Kings in times when the transportation dollar is shrinking and other priorities are omnipresent. Due to the trip distribution and the land use decisions made by the City of Hanford in west Hanford, cost sharing with the city needs to be discussed. The expected trip distribution shows 40% of the interchange traffic originates from the City of Hanford and 60% from County traffic. In addition to the trip distribution of the area, the future land use decisions will determine the interchange configuration and capacity needs.

Therefore, it is recommended that Kings County continue to work with the City of Hanford, KCAG and Caltrans to secure funding for initial reports necessary to achieve construction dollars for this project. Specifically, Kings County should request KCAG set aside State Transportation Improvement Program (STIP) funding to prepare a Project Study Report (PSR), Project Approval and Environmental Documentation (PA&ED), Plans Specifications and Estimates (PS&E), constructions (CONST), and right-of-way (RW) costs.

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