FINAL ENVIRONMENTAL IMPACT REPORT

SACRAMENTO COUNTY GENERAL PLAN UPDATE

Control Number: 2002-GPB-0105
State Clearinghouse Number: 2007082086
April 2010

COUNTY OF SACRAMENTO
DEPARTMENT OF ENVIRONMENTAL
REVIEW AND ASSESSMENT
827 7TH STREET, ROOM 220
SACRAMENTO, CALIFORNIA 95814

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April 19, 2010

TO: All Interested Parties

SUBJECT: FINAL EIR FOR *"DRAFT 2030 GENERAL PLAN"*
(CONTROL NO: 02-GPB-0105)

The subject Final Environmental Impact Report (FEIR) is attached for your review. The FEIR is currently scheduled to be heard before the Board of Supervisors on May 12, 2010, in the Board Chambers located at 700 H Street, Suite 1450. Interested individuals may view the materials for upcoming hearings on the website of the Board of Supervisors (http://www.bos.saccounty.net/), by selecting the Board Agendas and Supporting Materials link, and then the Tuesday or Wednesday Board Meetings link (as appropriate).

For questions and comments on this environmental document, please contact Lauren Hocker, Tim Hawkins, or Antonia Barry of this office at 874-7914.

Sincerely,

[Original Signature on File]

Joyce Horizumi,
Environmental Coordinator

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This Environmental Impact Report has been prepared pursuant to the California Environmental Quality Act of 1970 (Public Resources Code Division 13). An Environmental Impact Report is an informational document which, when this Department requires its preparation shall be considered by every public agency prior to its approval or disapproval of a project. The purpose of an Environmental Impact Report is to provide public agencies with detailed information about the effect that a proposed project is likely to have on the environment; to list ways in which any adverse effects of such a project might be minimized; and to suggest alternatives to such a project.

Prepared by the
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PREFACE

In accordance with Section 15082 of the CEQA Guidelines, acting as Lead Agency the County released a Notice of Preparation (NOP) of an Environmental Impact Report (EIR) for the project on August 13, 2007. This notice was circulated to the public, local, state, and federal agencies, and other interested parties to solicit comments on the proposed project.

Three public scoping meetings were held on November 14, 2007 at the Department of Human Assistance (2700 Fulton Avenue), on November 15, 2007 at the North Highlands Park and Recreation Center (6040 Watt Avenue), and on November 24, 2007 at the University of California Cooperative Extension (4145 Branch Center Road), to receive comments. A public agency scoping meeting was also held on November 14, 2007 at the California Governor's Office of Planning and Research. Concerns raised in response to the NOP were considered during preparation of the Draft EIR (DEIR).

Along with a Notice of Completion (NOC), the DEIR was released to the Governor's Office of Planning and Research to begin the public review period (Public Resources Code, Section 21161) on April 30, 2009. Concurrent with the NOC, the County also provided public notice of the availability of the DEIR for public review through publication in the Sacramento Bee and with notices which were sent to public libraries and to individuals who had requested such notification. The public review and comment period began on May 1, 2009, and though originally set to close on June 15, 2009, was extended and ultimately closed by the Sacramento County Planning Commission on July 27, 2009.

Public hearings on the DEIR were held before the Sacramento County Planning Commission on June 8, June 22, July 13, and July 27, 2009. Oral comments on the DEIR were accepted during all of these hearings. On July 27, 2009 the Planning Commission closed the public comment period on the DEIR and directed DERA to prepare the Final EIR. The Response to Comments chapter of the FEIR contains all of the written and oral comments made during the public comment period on the DEIR. In addition, the final section of the Response to Comments is devoted to the recommendations and comments made by the Sacramento County Planning Commission as part of formal motions and/or recommendations on the Project that are to be forwarded to the Board of Supervisors for consideration.

In most cases, substantive changes made to the content of the EIR are shown with ~~strikeout~~ text for deletions and **bold underlined** text for insertions. The exceptions are some changes within the Executive Summary and within some specific mitigation measures, because some of the mitigation measures use these conventions of notation to indicate changes that are recommended to the General Plan itself. In these cases the changes have been noted by an italicized description of the changes located at the beginning of the chapter, instead of by using special notation within the chapter.

All substantive changes to the DEIR are based on comments received on the DEIR. Corrections to errors in pagination or format, spelling corrections, grammatical corrections, and other such editorial changes that are unrelated to the substantive content of the EIR are not shown.

The Board of Supervisors will use the FEIR as one of the informational sources used to determine whether to approve or deny the Project

1 EXECUTIVE SUMMARY AND MITIGATION MEASURES

Summary of Changes:

Mitigation Measure LU-2 of the DEIR Executive Summary should have been deleted and consolidated with LU-1, with amendments; the Land Use chapter of the DEIR contained the correct mitigation, but the Executive Summary contained an older version. For the FEIR, the mitigation has been changed to the same version found within the Land Use chapter. Additional changes to the mitigation were made in response to comments. The first line has been stricken and replaced to clarify that the intent of the measure is to require phasing consisting of master planning, not to require phasing within master planning. The change is shown in bold and underlined text within the Land Use chapter.

In Mitigation Measure LU-2 the years of supply has been changed from 5 to 10.

In Mitigation Measure LU-3, the bold, underlined text of the final bullet is new language. Minor modifications have also been made to the next (e.g. the word "preserve" replaces "undevelopable").

In Mitigation Measure LU-4, the County has an agricultural-residential expansion program. The language was modified to reflect this fact.

There is a new Mitigation Measure TC-5; the DEIR TC-5 is now TC-6.

The subject of this Final Environmental Impact Report (FEIR) is a project known as the Sacramento County General Plan Update. The project encompasses the entirety of unincorporated Sacramento County.

The following environmental impact and mitigation summary table (*Table 1-1 Executive Summary of* Impacts and Mitigation *on page 1-4*) briefly describes the project impacts and the mitigation measures recommended to eliminate or reduce the impacts. The residual impact after mitigation is also identified. Detailed discussions of each of the identified impacts and mitigation measures, including pertinent support data, can be found in the specific topic sections in the remainder of this report.

This report has identified project-related impacts associated with land use policy conflict with smart growth principles, park services, noise policies, groundwater pumping within the Central Groundwater Basin, and flooding impacts associated with development of specific areas near the American River levee system as ***potentially significant, which could be reduced to a less than significant level*** through inclusion of recommended mitigation measures.

This report identifies ***significant and unavoidable*** impacts related to land use plan conflict with smart growth principles, conversion of or conflict with farmland, sewer capacity, water supply, groundwater recharge, water quality, biological resources,

roadway levels of service, transit services, vehicle noise, construction dust (particulate matter), operational air quality emissions (area, stationary, mobile, off-road), exposure of sensitive receptors to pollutants (roadway emissions, Roseville Railyard emissions, and other Toxic Air Contaminant sources), climate change impacts to and from the project, loss of mineral resources, impacts to important archaeological resources, impacts to important historical/structural resources, impacts to important cultural resources, impacts to unique paleontological resources, degradation of visual quality, and substantial glare/loss of nighttime views.

Impacts associated with land use plan compatibility, agricultural policies, division or disruption of an established community, displacement of housing, airport safety zone compatibility, most public services, water supply policies, groundwater pumping in the North Groundwater Basin, most effects to and from floodplains, circulation policy compatibility, traffic and circulation safety, bicycle and pedestrian facilities, airport noise compatibility, construction equipment emissions, carbon monoxide hotspots, pollutant emissions from the Sacramento International Airport, erosion, seismicity, unstable soils, hazardous materials, and asbestos are considered ***less than significant***.

TERMINOLOGY USED IN THIS EIR

This Draft EIR uses the following terminology to describe environmental effects of the project.

- **Significance Criteria.** A set of criteria used by the lead agency to determine at what level, or "threshold," an impact would be considered significant. Significance criteria used in this EIR include those that are set forth in the CEQA Guidelines, or can be discerned from the CEQA Guidelines; criteria based on factual or scientific information; criteria based on regulatory standards of local, state, and federal agencies; and criteria based on goals and policies identified in the Sacramento County General Plan.
- **Less-than-Significant Impact.** A project impact is considered less than significant when it does not reach the standard of significance and would therefore cause no substantial change in the environment. No mitigation is required for less-than-significant impacts.
- **Potentially Significant Impact.** A potentially significant impact is a substantial, or potentially substantial, adverse change in the environment. Physical conditions which exist within the area will be directly or indirectly affected by the proposed project. Impacts may also be short-term or long-term. A project impact is considered significant if it reaches the threshold of significance identified in the EIR. Mitigation measures may reduce a potentially significant impact to less than significant.

- **Significant Unavoidable Impact.** A project impact is considered significant and unavoidable if it is significant and cannot be avoided or mitigated to a less-than-significant level once the project is implemented.
- **Cumulative Significant Impact.** A cumulative impact can result when a change in the environment results from the incremental impact of a project when added to other related past, present or reasonably foreseeable future projects. Significant cumulative impacts may result from individually minor but collectively significant projects.
- **Mitigation.** Mitigation measures are revisions to the project that would minimize, avoid, or reduce a significant effect on the environment. CEQA Guidelines §15370 identifies 5 types of mitigation:

  a) Avoiding the impact altogether by not taking a certain action or parts of an action.

  b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation.

  c) Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment.

  d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.

  e) Compensating for the impact by replacing or providing substitute resources or environment.

Table 1-1
Executive Summary of Impacts and Mitigation

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
LAND USE			
Land Use Plan Compatibility			
• **Existing Land Use Plans**			
The proposed General Plan Land Use Diagram does not result in substantial conflicts with adjacent land use plans or programs that are intended to avoid environmental effects.	LS	None recommended.	LS
• **Smart Growth Principles**			
Of the identified growth strategies and areas, the Commercial Corridors and development of vacant and underutilized land strategies, and the West of Watt and Easton New Growth Areas are consistent with smart growth principles. The Jackson Highway Corridor and the Grant Line East areas are inconsistent with principles that direct development toward existing urbanized environments and away from open space. Mitigation requiring logical phasing can reduce the significant impact associated with the Jackson Highway Corridor to less than significant levels. This mitigation would not be sufficient for Grant Line East, so this impact remains significant.	S	**LU-1.** Growth within the Jackson Highway Corridor and Grant Line East New Growth Areas shall be phased through master planning processes. The phases shall be defined by a specific geographic area, with the earliest phases closest in to the existing urban areas, and the later phases farthest outward. Each phase shall represent a geographic area that will accommodate no more than 10 years of growth, based on the latest SACOG projections. Development within the phases shall occur sequentially, and residential or commercial development in each subsequent phase shall be prohibited until the prior phase is developed to at least 50% of holding capacity.	SU
Land Use Policy Compatibility			
• **Smart Growth Principles**			
Proposed new policies LU-17, LU-120, and LU-121 conflict with smart growth principles. Proposed policies LU-87 and LU-123, which are identical to two existing General Plan policies, also conflict with smart growth principles. The	S	**LU-2.** Modify Policy LU-120 as follows (delete ~~strikethrough~~, add **bold, underlined**): Except as permitted by LU-60, the County shall not accept **private** applications to amend the General Plan Land Use Diagram from a designation in	LS

[1] PS = Potentially Significant S = Significant SU = Significant and Unavoidable LS = Less Than Significant

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
policy conflicts with smart growth principles identified are of great import, because the policies deal with expansion of the Urban Policy Area and amendment of land uses outside the Urban Policy Area. The physical effects of the policy conflicts could result in substantial impacts related to loss of open space and development outside of the urban environment.		Column A to a designation in Column B for property located outside of the Urban Policy Area but within the Urban Service Boundary unless **the expansion is deemed to be minor and logical, as follows**: • The property adjoins property ~~designated for~~ **substantially developed with** urban land uses and its shape and extent comprise a logical extension of infrastructure and services; and • There is clear evidence that infrastructure capacity and service availability exist or can be easily extended to the property; and • The amendment is consistent with draft or adopted Habitat Conservation Plans; and • The Board finds that the unincorporated area land supply within the Urban Policy Area contains an insufficient land supply to accommodate a ~~15~~ **10** year supply of growth. • ~~The Board determines that the property represents a minor and logical extension of the Urban Policy Area for the purpose of preparation of a Specific Plan or other development request.~~ **LU-3.** Modify Policy LU-121 as follows (delete ~~strikethrough~~, add **bold, underlined**): The Urban Policy Area is intended to provide a 25-year supply of developable land sufficient to accommodate projected growth. The UPA shall also include additional **preserve** lands to ensure an appropriate supply **of open space**. It is the policy and intent of the County to ~~expand~~ **evaluate** the UPA at a minimum of five year intervals**, to determine if an expansion is needed** to maintain a constant adequate supply of land. Guidelines to be considered by the Board in determining the expansion of the Urban Policy Area include:	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		• Buildout rates by type of use, unit type and density for the previous 5-year period. • Infill trends and opportunities. • Population and job growth projections as reflected by a minimum of three independent sources. • Evidence that the infrastructure capacity and service availability exist or can be extended to the property. • Evidence that the proposed expansion is consistent and complies with draft or adopted Habitat Conservation Plan goals and objectives**, or where such a draft or adopted Plan does not exist, evidence that important natural resources lands, agricultural lands, and open space lands will be protected and integrated into a cohesive and interconnected network of open space within the UPA.** **LU-4.** Modify Policy LU-87 as follows (delete ~~strikethrough~~, add **bold, underlined**): The County supports Agricultural-Residential expansion outside the USB when it is determined by the Board of Supervisors to be necessary to meet demand levels **for agricultural-residential lands**. The County shall ~~establish a~~ **maintain the** program that determines the methodology for Ag-Res expansion and criteria for small-scale expansion. **LU-5.** Modify Policy LU-123 as follows (delete ~~strikethrough~~, add **bold, underlined**): The County may modify the Urban Policy Area independent of changes in General Plan land use designations provided that the area encompassed by the changes meets the requirements of Policy LU-120, or the County has adopted a Community Plan which **includes plans to** ~~provides for~~ extend~~ing~~ urban services to existing agricultural-residential areas.	
• **Agricultural Policies**			

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
All of the proposed changes to agricultural policies, and all of the existing policies being carried forward into the proposed General Plan, are beneficial.	LS	None recommended.	LS
Environmental Health			
To the degree to which the Project conflicts with smart growth principles, the project could also be considered to have impacts related to environmental health. However, CEQA does not require the analysis of this subject, but instead directs the discussion of specific topical areas that are related to environmental health, such as air quality impacts. Reviewers are directed to peruse the smart growth discussion and the other sections of this EIR that contain impact discussions with ramifications for human health.	N/A	See the various topical chapters related to health (e.g. Air Quality).	N/A
Division or Disruption of an Established Community			
The Project does not include any elements that would result in significant division or disruption of an established community, as the only new roadways and other project aspects that could divide communities are located in relatively undeveloped areas.	LS	None recommended.	LS
Conversion of or Conflict With Farmland			
Considering the Jackson Highway Corridor, the Grant Line East area, and the Commercial Corridors together, the Project has the potential to impact 217 acres of Prime Farmland, 1,800 acres of Farmland of Statewide Importance, 231 acres of Unique Farmland, and 6,619 acres of Farmland of Local Importance, for a total of 8,867 acres of designated farmlands.	S	**LU-6.** Amend policies CO-63 and AG-5 to require 1:1 mitigation, and include an Implementation Measure to Policy AG-5 which directs the establishment of a farmland mitigation fund that can be used to acquire, preserve, and maintain farmlands.	SU

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Displacement of Housing			
The amount of housing that may be displaced by new or expanded roadways associated with the Transportation Plan is far outweighed by the amount of housing projected to be accommodated by implementation of the Project. The Project will not require the construction of unplanned replacement housing elsewhere as a result of the displacement of existing housing.	LS	None recommended.	LS
Airport Safety Zone Compatibility			
Some of the safety zones of the Sacramento Executive, Mather Field, and McClellan Airpark airports extend into proposed growth areas. Allowable uses within the safety zones described above will be restricted, based on the CLUPS in effect at the time a project is proposed. These restrictions prevent significant safety impacts.	LS	None recommended.	LS
PUBLIC FACILITIES AND SERVICES			
Solid Waste			
Kiefer Landfill has the capacity to meet solid waste demands generated by the Project; the Project will not result in the expansion of Kiefer Landfill or construction of a new landfill. The construction of new transfer stations is a part of the recycling efforts, and General Plan Policy PF-21 and Implementation Measure A will ensure impacts of new transfer stations are minimized.	LS	None recommended.	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Schools			
The Project will require the provision of new school facilities. The construction of new facilities will result in environmental impacts, but these impacts will occur within areas that have already been analyzed throughout the EIR. General Plan policies requiring provision of land for schools, in addition to developer fees under SB 50 and school facilities mitigation under the California Government Code, will provide adequate funding and support to ensure that sufficient school facilities will be provided.	LS	None recommended.	LS
Library Services			
The New Growth Areas would require additional libraries, which the General Plan requires incorporation of new library facilities into specific plans and community plans. The funding mechanisms for new libraries are also contained within the General Plan. The construction of new facilities will result in environmental impacts, but these impacts will occur within areas that have already been analyzed throughout the EIR.	LS	None recommended.	LS
Law Enforcement			
Project implementation will require additional law enforcement personnel and facilities. The General Plan contains policies for the planning and development of law enforcement facilities, such as law enforcement programs (educational and crime preventative programs), design of neighborhoods and regulating security measures through the Zoning Code, Uniform Building Code and Land Development Ordinances. The construction of new facilities will result in environmental impacts, but these impacts will occur within areas that have already been analyzed throughout the EIR.	LS	None recommended.	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Fire Protection and Emergency Services			
The General Plan contains policies that allow the Board of Supervisors to establish mitigation fees for the purpose of funding adequate fire protection and emergency medical response facilities, provided they find that such fees are critical and necessary to meet the facility funding needs of the fire district. Additionally, the policies contained in the General Plan require that new buildings and neighborhoods meet the requirements of the California Fire Code and access and fire hydrants are adequate. These policies will ensure that impacts associated with growth and funding for adequate fire protection will be less than significant. The construction of new facilities will result in environmental impacts, but these impacts will occur within areas that have already been analyzed throughout the EIR.	LS	None recommended.	LS
Energy Services			
The Project would require additional energy production and distribution facilities (such as transmission corridors) to provide delivery of electricity to new development. The General Plan contains policies regarding the siting of energy facilities that attempt to minimize impacts associated with land use conflicts, visual and aesthetic resources, historic or cultural resources and biological resources. New Community Plans must contain an Energy Facility Siting Element, indicating the location of existing and planned energy facilities. Developing neighborhoods must prepare a Public Facility Financing Plan that includes the cost of the installation of new and existing subtransmission lines underground. The policies contained in the General Plan ensure that impacts will be minimized and/or mitigated.	LS	None recommended.	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure		Level of Significance After Mitigation
Parks and Recreation				
As required by the Quimby Act and General Plan policies, park land dedication and/or in lieu fees are required in order to develop and maintain parks. General Plan policy PF-124 requires new subdivisions to provide sufficient acreage of parks to meet the long-range needs of the community. The construction of new facilities will result in environmental impacts, but these impacts will occur within areas that have already been analyzed throughout the EIR. Though the existing policies support park services, the park districts are concerned that existing policies do not support operation and maintenance of parks adequately, only local park land acquisition. As a consequence, it is possible that new development consistent with the Project will result in potentially significant issues with providing adequate ongoing park services. To ensure that this impact is avoided, it is recommended as mitigation that the park districts' proposed alternative general plan policy language (or a similar updated version) is adopted as part of the General Plan.	PS	**PF-1.**	The County shall either adopt the Park District Alternative section of the Public Facilities Element, or a similar updated version.	LS
SEWER SERVICE				
Combined, the various growth strategies will result in a minimum of 76 mgd (ADWF) that must be accommodated by conveyance facilities and 52.9 mgd that must be accommodated by the treatment plant. The existing flows at the treatment plant are ~~140~~ **141** mgd and permitted flows are 181 mgd. The proposed Project will increase existing flows to ~~192.9~~ **193.9** mgd, which exceeds the existing permitted capacity. If the lawsuit related to permit expansion for the Sacramento Regional Wastewater Treatment Plant is resolved and the permitted capacity is expanded to 218 mgd (ADWF), there will be enough capacity to serve the Project. However, there will not be enough capacity to serve the Project plus all of the other	S	**SE-1.**	General Plan Policy PF-18 should be modified as follows to address corridor infrastructure environmental impact concerns: New development projects which require extension or modification of the trunk or interceptor sewer systems shall be consistent with sewer facility plans and shall participate in established funding mechanisms. *Prior to approval of a specific Commercial Corridor re-development plan, a sewer study and financing mechanism shall be prepared and considered along with the proposed Corridor re-development plan,* ***in consultation with the Sacramento Area Sewer District****.*	SU

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
development in the cities of Elk Grove, Sacramento, and Rancho Cordova. This combined growth will result in up to ~~291.5~~ **292.5** mgd of flows to the treatment plant. A facility expansion would be required.		**SE-2.** The following policy shall be added to the General Plan: *Extension or modification of trunk or interceptor sewer systems that are required for new developments shall be consistent with sewer facility plans and shall participate in an established funding mechanism. New development that will generate wastewater for treatment at the SRWTP shall not be approved if treatment capacity at the SRWTP is not sufficient to allow treatment and disposal of wastewater in compliance with the SRWTP's NPDES Permit.*	
WATER SUPPLY			
Proposed Policies			
The proposed and existing policies and implementation measures associated with Water Supply are intended to ensure that development does not exceed the capacity of dependable water supplies and that the sustainable yield groundwater and surface water rights are used to meet projected growth in the unincorporated Sacramento County. These policies are all beneficial in nature. This includes the Alternative version of these policies that is proposed by Sacramento County Department of Water Resources.	LS	None recommended.	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure		Level of Significance After Mitigation
Increase In Water Demand That Cannot Be Met by Water Purveyors' Existing or Future Projected Supplies or Require New Water Treatment Facilities and Pipelines That Could Cause Construction-Level Environmental Effects				
Of the 28 water purveyors that supply water to customers within Sacramento County, 17 would be affected by corridor enhancement, residential infill, or New Growth Areas proposed in the General Plan Update. All affected water purveyors are likely to need additional conveyance infrastructure to serve new development, and the impacts of construction of these pipelines, wells, and other structures are potentially significant. While in most cases there is sufficient available supply to meet the additional demand, the following purveyors will need to obtain additional supply: CalAm, Florin County Water District, and Sacramento County Water Agency Zone 40.	S	**WS-1.**	The following policy shall be added to the General Plan: New development that will generate additional water demand shall not be approved or building permits shall not be issued, **whichever occurs first,** if sufficient water supply is not available.	SU
Interference With Groundwater Recharge				
Easton and Grant Line East are located over substantial areas identified as being of high, medium, and low groundwater recharge potential. Development within these areas has the potential to eliminate or impact these areas. General Plan policy requires that moderate to very high groundwater recharge capability areas be maintained as open space or agriculture. General Plan policy will help offset impacts, but low groundwater recharge capability areas may still be lost.	S	None recommended.		SU

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Contribute to groundwater pumping in excess of 131,000 acre-feet for the Sacramento North Area Groundwater Basin			
Using the conservative estimate of 101,096 acre-feet annually (AFA) as the existing pumping demand and predicting a conservative 3606 AFA demand resulting from the proposed General Plan growth, the total regional demand on the basin would be 104,702 AFA. This is 80% of the sustainable yield of 131,000 AFA; therefore, the project is not expected to contribute to groundwater pumping in excess of 131,000 AFA for the North Area Groundwater basin.	LS	None recommended.	LS
Contribute to groundwater pumping in excess of 273,000 acre-feet for the Sacramento Central Groundwater Basin			
Impacts of the General Plan Update related to exceeding the 273,000 AFA sustainable yield of the Central Basin can be reduced to *less than significant* with implementation of a new water supply master plan to serve the new growth proposed in the Jackson and Grant Line East New Growth Areas that commits to not exceeding current groundwater allocations which support the sustainable groundwater yield.	S	**WS-2.** The following policy shall be added to the General Plan: Prior to approving any new development in the Jackson and Grant Line East New Growth Areas, a water supply plan shall be approved that demonstrates that the sustainable yield of the Central Groundwater Basin will not be exceeded by the proposed growth.	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Secondary Impacts of Obtaining Additional Water Supply			
Secondary impacts include physical impacts related to construction of new facilities (pipelines, scalping plants, wells, etc), impacts to biological resources as a result of increased surface water diversions, groundwater contamination resulting from lowered aquifer levels (poorer-quality groundwater is sometimes found deeper within an aquifer), drying of wells or flooding of properties as a result of increased fluctuations in groundwater levels, and land subsidence as a result of lowering groundwater levels. The details of these impacts cannot be known until a specific plan to increase water supply is proposed, but impacts related to any one of these secondary impacts could be substantial.	PS	General Plan policies and existing regulations constitute all reasonable and feasible mitigation. None recommended.	PS
HYDROLOGY AND WATER QUALITY			
Project Effects on Floodplains			
Development within the areas identified for growth as part of this General Plan will contribute additional runoff to existing stormwater systems and floodway environments. Any future master planning proposal within the growth area will require preparation of a Drainage Master Plan, pursuant to General Plan Policy SA-5. All smaller-scale development, such as infill, will be required to comply with the provisions of the Floodplain Management Ordinance and County Improvement Standards. Compliance with County Ordinances, Improvement Standards, and General Plan Policy will ensure that the Project will not substantially increase the rate or amount of surface runoff in a manner that causes flooding or that exceeds stormwater system capacity.	LS	None recommended.	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Floodplain Effects on the Project			
Some of the areas identified for development as part of buildout of this General Plan are within floodplain areas. Compliance with the Sacramento County Floodplain Management Ordinance will ensure that no residence is placed within a flood hazard area, and that people or structures will not be exposed to a significant risk involving flooding. There are numerous levees within Sacramento County. Most of the proposed Project development areas are either within areas that are not levee-protected or are in areas with certified and adequate levees. In the case of the Jackson Highway Corridor) there are existing uncertified levees, so the levee-protected area is treated as existing floodplain until improvements are made. In all these cases, existing regulations and policies are sufficient to avoid impacts. The exception is a few development areas along the American River. The American River has certified 100-year levees in the affected areas, but recent legislation and General Plan policy indicates that this should ultimately be to the 200-year standard. Mitigation recommends precluding development in those affected areas until the levees are improved to the 200-year level. This will be sufficient to offset any potential impacts.	S	**HY-1.** The following policy language shall be added to the General Plan Safety Element: **<u>Discretionary</u>** residential development within any area identified on the City/County of Sacramento Flood Emergency Evacuation Plan as being inundated by at least 3 feet of water shall be prohibited until the American River levee system is certified to a 200-year standard unless: 1. It is demonstrated to the satisfaction of the Sacramento County Department of Water Resources that the project site is outside the 200-year floodplain. OR 2. The need for this policy is superseded by implementation of legislation or other policy related to this issue, as determined by the Sacramento County Department of Water Resources.	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Project Effects on Water Quality			
There are multiple creeks within the County that are listed by the state as impaired, primarily for pollutants such as diazinon and chlorpyrifos (both common components of pesticides and insecticides). The Project will introduce development in areas that contribute runoff to these impaired waterways, thereby resulting in a net increase in urban runoff pollution. Although the County has standards that apply to larger new developments that will offset these impacts to some extent, it is unrealistic to expect that there will be zero net increase in pollution as a result of the Project. Any net increase to an impaired waterway is a significant impact. Impacts related to water quality are *significant and unavoidable*.	S	**HY-2.** The following language shall be added to the General Plan Conservation Element, Surface Water Quality section, Implementation Measures: Develop appropriate stormwater treatment measures to apply to small development and redevelopment projects to incorporate into the *Stormwater Quality Design Manual.*	SU
BIOLOGICAL RESOURCES			
Wetlands and Riparian Areas			
The New Growth Areas contain at least 576 acres of wetlands and streams and 256 acres of riparian habitat – figures that only includes habitat within the Jackson Highway Corridor, Grant Line East, and Easton. A substantial amount of these wetlands and riparian areas, plus additional acreage within the infill areas, West of Watt, and the planned communities, will be lost. Overall, wetland and riparian impacts in the new growth areas are considered *significant and unavoidable*. This determination is based on the density and distribution of vernal pools and other wetland and riparian habitats and the existing biological health and landscape integrity.	S	General Plan policies and existing regulations provide all feasible protection for wetland and riparian habitat. No mitigation is recommended.	SU

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Special Status Species			
The new growth areas have a considerable amount of contiguous undeveloped land that provides habitat for listed species to persist within an area. These vast tracts of land are more likely to provide adequate food, water, and shelter and less likely to suffer from urban impacts (deterioration of water quality, competition from non-native species, disruption of migrating corridors, direct mortality from vehicular collisions, etc.). The reduction in size of habitat reduces a species' ability to persist in an area, and will eventually lead to the area being uninhabitable or detrimental to those that remain. Plants or animals attempting to survive in these substandard habitats are not able produce offspring, and eventually die without contributing to the overall population. The development of the new growth areas will contribute toward the cumulative impact associated with the decline of listed species by removing large areas of listed species habitat and create smaller isolated pieces of substandard habitat. Though existing regulations and General Plan policy will offset these impacts to the extent possible, cumulative impacts are *significant and unavoidable*.	S	General Plan policies and existing regulations provide all feasible protection for wetland and riparian habitat. No mitigation is recommended.	SU

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Native Trees			
The Project area includes many native riparian trees, oak trees, black walnuts, and other native trees. Buildout of the Project will result in a substantial loss of these native trees. Proposed policies require compensation for loss of riparian habitat (which includes riparian trees), oak trees, and other native trees. With replacement plantings occurring through draft policy CO-158, the significant impacts could be reduced, though not to a less-than-significant level. There will still be temporal losses (meaning that it will be many years before a seedling planted replaces a mature tree). There will also be losses within particular areas of the County, because lack of space will require that replacement plantings for an impact in one area of the County may need to be accommodated in a different location in the County. Impacts are *significant and unavoidable*.	S	**BR-1.** The following General Plan policy shall be added: Mitigate for the loss of native trees for road expansion and development consistent with General Plan policies and/or the County Tree Preservation Ordinance. **BR-2.** Implementation Measure B, under the Landmark and Heritage Tree Protection objective, bullet item number five should be changed as follows: A. Require equivalent compensation of a minimum tree replacement value as follows: a. <u>One deepot seedling = 1 inch dbh</u> b. One 15-gallon tree = 1 inch dbh c. One 24-inch box tree = 2 inch dbh d. One 36-inch box tree = 3 inch dbh	SU

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure		Level of Significance After Mitigation
Tree Canopy				
Though consideration of urban tree canopy is promoted by CO-162, there is no requirement to preserve or replace canopy. Mitigation is suggested to include urban tree canopy policies that require equivalent compensation for canopy loss. Though the proposed mitigation may ultimately prevent a County-wide loss of tree canopy, there will still be temporal losses (meaning that new plantings will take time to mature and replace lost canopy). It is also probable that there will be net canopy losses within specific areas of the County. As infill lots develop, there will be less land available to support trees within the urban core. Some proportion of mitigation planting will need to take place outside of the particular urban area where the impact occurred.	S	**BR-3.**	The following General Plan policy shall be added: Removal of non-native tree canopy for development shall be mitigated by creation of new tree canopy equivalent to the acreage of non-native tree canopy removed. New tree canopy acreage shall be calculated using the 15-year shade cover values for tree species.	SU
		BR-4.	The following General Plan policy shall be added: If new tree canopy cannot be created onsite to mitigate for the non-native tree canopy removed for new development, project proponents (including public agencies) shall contribute to Greenprint funding in an amount proportional to the tree canopy impacts of the specific project.	
TRAFFIC AND CIRCULATION				
Circulation Policy Compatibility				
The Circulation Element of the General Plan Update includes 37 policies intended to facilitate the implementation of the goals of the General Plan. The proposed policies are a complete re-write of the existing policies, reflecting changes in political, social, environmental, and fiscal conditions since the creation of the earlier plan. However, the general goals of the policies are the same: integration of transportation with land use; continued emphasis on alternative travel modes; and adequate funding for transportation infrastructure, operation, and maintenance. The new policies will not result in any adverse physical effects as measured by the standards of significance.	LS	None recommended.		LS
Roadway Levels of Service				
The volume increases associated with the project result in multiple roadways degrading from acceptable to	S	**TC-1.**	The Sacramento County Transportation Plan diagram shall be amended to designate the following roadways as	SU

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
unacceptable levels of service. In addition, multiple roadways that would already operate at an unacceptable level of service under the No Project Alternative would experience an increase of volume-to-capacity ratio of greater than 0.05. Despite the improvements in mobility that could be accomplished through the application of mitigation, it is considered infeasible to fully mitigate the Project's impacts on roadways for an array of reasons. There are physical constraints that make widening some roadways infeasible, such as the presence of biological resources or existing buildings that would need to be removed to accommodate the expansion. There are also financial constraints; many funds exist to build roadways, but the sheer number of areas that may be affected by the Project makes it unreasonable to assume that all of these improvements can be funded in a timely manner.		six lane thoroughfares in the cumulative condition: A. White Rock Road (between Grant Line Road and Scott Road North) B. Kiefer Boulevard (between Excelsior Road and Bradshaw Road) C. Excelsior Road (between Gerber Road and Jackson Road) **TC-2.** The following policies shall be added to the General Plan: A. Replace Policy CI-19 with the following – *The County shall develop right-of-way acquisition guidelines for the implementation of transit services shown on the Transportation Plan.* B. *Public Facilities Financing Plans shall incorporate capital and operating costs for transit. Infrastructure Master Plans shall include transit planning.* C. *Plan and implement intelligent transportation system (ITS) strategies within the County's high-demand travel corridors and support efforts to deploy ITS strategies on a regional level.* D. *The County shall plan and prioritize the implementation of intersection improvements, where feasible, in corridors identified as congested.* **TC-3.** The County shall adopt a smart-growth program that will facilitate the expansion of walkways, bikeways, and transit services and decreases in vehicle miles traveled. This requirement may be met by adopting the proposed Smart Growth Streets program described in this chapter, or by including a policy within the General Plan requiring adoption of a smart-growth program consisting of the following minimum elements: A. A policy focusing on overall mobility to supplement	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		the existing vehicular mobility standards. B. A policy or set of policies that allow enhancements to non-auto travel modes as mitigation pursuant to the policy described in TC-3.A. C. Replacement or alteration of the minimum parking standards with standards that reflect and accommodate average use for the region, or other method that results in overall reductions in per-project parking requirements. **TC-4.** The following policy shall be added to the General Plan: A. Infill projects that are consistent with the County's definition of a Quality Infill Project may participate in the County's Infill/Urban Tree Mitigation Program. The Tree Mitigation Infill Policy is as follows: Impacts to native trees designated for removal shall be calculated and mitigated based on canopy area coverage. Canopy replacement may utilize any tree species that is listed on the Tree Coordinator's list of recommended trees for parking lot shade. For measurement purposes, replacement tree canopy shall be calculated in the same manner as the parking lot shade requirements of Section 330-94 of the Sacramento County Zoning Code, using the ultimate canopy growth as specified on the Tree Coordinator's Tree Species Specifications. Tree canopy replacement shall, ideally, occur on site. In the event the physical constraints of the site preclude the additional replacement mitigation on-site, the following options may be utilized in coordination with the County Tree Coordinator and Mitigation Program: a. Planting in adjacent landscape/ corridor areas; b. Planting within local parks; c. Other plantings that may otherwise be arranged in	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		the neighborhood or community; d. Participation in County programs including but not limited to payment of in lieu fees for use in tree care, preservation and maintenance programs, and other similar programs to the satisfaction of the County Tree Coordinator. **TC-5.** The following policies of the General Plan shall be modified: A. Modify CI-1 as follows: ~~Promote~~ **Provide** complete streets with access to a diversity of safe and efficient travel modes for **all urban and suburban** ~~all new and existing~~ land uses within Sacramento County **except within certain established neighborhoods where particular amenities (such as sidewalks) are not desired**. B. Modify CI-3 as follows: Travel modes ~~should~~ **shall** be interconnected to form an integrated, coordinated and balanced multi-modal transportation system, planned and developed consistent with the land uses to be served. C. Modify CI-21 as follows: ~~Promote the development of~~ **Develop** a comprehensive, safe, convenient and accessible bicycle and pedestrian system that serves and connects the County's employment, commercial, recreational, educational, social services, housing and other transportation modes. D. Modify LU-28 as follows: When planning for new development in ~~either~~ new ~~or existing~~ communities, the ~~following~~ features **below** shall be ~~considered~~ **incorporated** for their public health benefits and ability to encourage more active lifestyles**, unless environmental constraints make this infeasible. In existing communities, the features below shall be considered, as appropriate and feasible.**	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
		• **Where appropriate,** compact, mixed use development and a balance of land uses so that everyday needs are within walking distance, including schools, parks, jobs, retail and grocery stores. • Streets, paths and public transportation that connect multiple destinations and provide for alternatives to the automobile. • Wide sidewalks, shorter blocks, well-marked crosswalks, on-street parking, shaded streets and traffic-calming measures to encourage pedestrian activity. • Walkable commercial areas with **features that may include** doors and windows fronting on the street, street furniture, pedestrian-scale lighting, and served by transit when feasible. E. Modify LU-39 as follows: ~~Promote~~ **Provide** and support development of pedestrian and bicycle connections between transit stations and nearby residential, commercial, employment or civic uses by eliminating physical barriers and providing linking facilities, such as pedestrian overcrossings, trails, wide sidewalks and safe street crossings. F. Modify LU-72 as follows: Give the highest priority for public funding to projects that facilitate infill, reuse, redevelopment and rehabilitation, ~~and~~ mixed use development, **and that will result in per-person vehicle miles traveled lower than the County average,** and the lowest priority for projects that do not comply with public facilities Master Plan phasing sequences.	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Bicycle and Pedestrian Facilities			
The proposed General Plan Update incorporates the Bikeway Master Plan and Pedestrian Master Plan, and includes policies for the planning, funding, and implementation of bicycle and pedestrian facilities to address mobility needs. Development in new growth areas consistent with the smart growth principles will ensure bicycle and pedestrian mobility within these areas, and the County's plans to improve bicycle and pedestrian facilities on existing and planned roadways will provide important connectivity.	LS	None recommended.	LS
Safety			
The proposed General Plan Update incorporates policies related to transportation facility planning, design, and implementation in accordance with accepted design standards and guidelines.	LS	None recommended.	LS
Transit			
The increases in households and employment associated with the General Plan Update will increase the demand for transit services. To accommodate new development, RT will need to increase frequency on current transit (bus and light rail) routes, extend transit routes, and add new transit routes. New development will require additional buses and light rail vehicles. The increased transit fleet will require additional maintenance facilities and equipment. Additional transit stations, stops, and park-and-ride lots will be needed on existing and future transit routes. Although it is the intent of the General Plan Update to provide new transit services to new growth areas once the level of development and densities reach levels that justify services, it may not be possible to provide adequate transit services due to future funding uncertainties. The transit system associated with the MTP assumes future funding sources that are not guaranteed. This may result in less	S	**TC-6.** The following policy language shall be added to the General Plan: A. The County shall work with Regional Transit to establish and implement development guidelines to maximize the ability of new development to support planned transit services. B. The County shall adopt development guidelines to ensure that new development and redevelopment occurs with an orientation to travel patterns that are conducive to transit service. This will include concentration of development in centers and along linear corridors such that trip origins and destinations are concentrated near transit services. C. The County shall collaborate with transit providers to promote the phased implementation of transit	SU

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure		Level of Significance After Mitigation
transit service than appropriate to support the General Plan Update, and/or delays in the implementation of appropriate transit service.			services to all growth areas as development occurs. D. The County shall promote transit-supportive programs in new development, including employer-based trip-reduction programs (employer incentives to use transit or non-motorized modes), "guaranteed ride home" for commute trips, and car-share or bike-share programs. E. The County shall implement paid parking in the densest commercial areas, whenever feasible. F. In BRT and Feeder Line transit corridors that are anticipated to be congested in the future, the County shall implement all feasible measures to minimize the effects of congestion on transit travel times.	
NOISE				
Proposed Policies				
There are two proposed policies that have a potential for significant health-related noise impacts: NO-9 and NO-15. Neither includes a maximum allowable noise threshold, which could result in noise levels that exceed safe levels. Mitigation recommends that both policies be revised to include language establishing an upper noise ceiling of 75 dB in any area where it is reasonable to expect long-term noise exposure (except in industrial areas, where higher noise levels are expected and planned for by use of proper hearing protection).	PS	**NO-1.**	The following language shall be added to proposed policies NO-9 and NO-15: The maximum allowable long-term noise exposure permissible for non-industrial uses is 75 dB.	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Airport Noise Compatibility			
Future planning of the Jackson Highway Corridor, the West of Watt new growth area, and the Watt Avenue North Commercial Corridor will be influenced by the presence of the 60 CNEL noise contour of Mather Airport and McClellan Air Park. Proposed residential uses in these growth areas must be outside the contour line, making it more appropriate to site certain kinds of business and industrial uses, passive open space uses, or mining uses (in the case of aggregate resource areas). Compliance with the existing CLUP in effect at the time development is proposed will ensure *less than significant* impacts.	LS	None recommended.	LS
Vehicle Noise			
The Project will not cause long-term exposure to noise volumes with the potential to cause significant physiological effects. The Project will increase noise volumes in areas already inconsistent with General Plan policy, and will cause additional areas to become exposed to noise inconsistent with General Plan policy. There is no reasonable or feasible mitigation that will reduce this impact in all areas with existing development.	S	None available.	SU

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
AIR QUALITY			
Temporary Increase In Ozone Precursor (ROG AND NO_X), CO, Particulate Matter Exhaust, and Fugitive Dust Emissions During Grading And Construction Activities			
Construction allowed in the Project area would result in the temporary generation of ozone precursor (ROG, NO_X), CO, and particulate matter exhaust emissions that would result in short-term impacts on ambient air quality in the Project area. Construction within the Project area will cause significance thresholds to be exceeded. The SMAQMD requires the implementation of measures to reduce construction-related emissions. In the case of emissions from equipment, this is sufficient to offset impacts. In the case of particulate matter arising from dust, even the application of feasible mitigation will not reduce all impacts to below significance.	S	General Plan policy and existing regulatory requirements represent all feasible mitigation. No further mitigation is recommended.	SU
Elevated Health Risk from the Exposure of Nearby Sensitive Receptors to Diesel Particulate Matter During Construction			
It is anticipated that construction activities associated with the individual Project elements will be short-term and will occur over a period of several months to several years in duration, and will not result in long-term emissions of diesel exhaust in any given locale of the Project area. In addition, implementation of SMAQMD-required measures to reduce construction-related emissions would serve to further reduce construction emissions and minimize this impact.	LS	General Plan policy and existing regulatory requirements represent all feasible mitigation. No further mitigation is recommended.	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Temporary Generation of Naturally Occurring Asbestos During Grading and Construction Activities			
Project elements resulting in grading and ground-disturbing activities in areas with a moderate likelihood of containing naturally occurring asbestos, such as eastern Sacramento County, may disturb asbestiform-containing soils and generate asbestos dust. As also discussed in the Geology and Soils chapter, the only change proposed by the Project that appears to be affected by NOA is some small portion of the Grant Line East New Growth Area. Air Resources has adopted an ATCM to control exposure to asbestos from construction, grading, quarrying, and surface mining operations (17 CCR §93105, 7/26/01). Compliance with the requirements of the ATCM would offset any potential impacts associated with NOA.	LS	Existing regulatory requirements represent all feasible mitigation. No further mitigation is recommended.	LS
Generation Of On-Road Mobile Source Criteria Pollutant Emissions In Excess Of SMAQMD Thresholds			
The Project will result in emissions that exceed SMAQMD significance thresholds. Even with the preparation of Air Quality Management Plans on a project-level basis, and the County's General Plan policies aimed at promoting smart growth, reducing vehicle trips and trip lengths, and improving air quality, it is anticipated that emissions from development anticipated under the Project would still exceed SMAQMD threshold levels.	S	General Plan policy and existing regulatory requirements represent all feasible mitigation. No further mitigation is recommended.	SU

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Generation Of Stationary, Area, And Off-Road Criteria Pollutant Emissions In Excess Of SMAQMD Thresholds			
The Project will result in emissions that exceed SMAQMD significance thresholds. Even with the preparation of Air Quality Management Plans on a project-level basis, and the County's General Plan policies aimed at promoting smart growth, reducing vehicle trips and trip lengths, and improving air quality, it is anticipated that emissions from development anticipated under the Project would still exceed SMAQMD threshold levels.	S	General Plan policy and existing regulatory requirements represent all feasible mitigation. No further mitigation is recommended.	SU
Exposure Of Sensitive Receptors To Substantial Concentrations Of Carbon Monoxide			
No violations of the state or federal 1- or 8-hour CO standards are anticipated in the Project area under cumulative-year conditions. Due to continuing improvements in engine technology due to relatively stricter emission control standards and the retirement of older, higher-emitting vehicles, it is anticipated that vehicle emissions in future years will be lower than current years. As a result, although roadway volumes increase in future years, intersection congestion and volumes are not sufficient to result in elevated CO levels.	LS	None recommended.	LS
Elevated Health Risks From Exposure of Sensitive Receptors to Sacramento International Airport Emissions			
The Final Environmental Impact Report prepared for the Sacramento International Airport Master Plan (County of Sacramento 2007) evaluated health risks associated with the Sacramento International Airport's Master Plan. The Final Environmental Impact Report found that health risks ranged from 0 to 0.64 in 1 million for the maximum exposed individual receptors analyzed (i.e., residence, school, and offsite worker). These values are below the threshold of 10 in 1 million.	LS	None recommended.	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Elevated Health Risks From Exposure of Sensitive Receptors to Roseville Rail Yard Emissions			
Diesel exhaust from the Roseville Rail Yards could result in adverse health risks to nearby sensitive receptors. The Placer County Air Pollution Control District, Union Pacific Railroad, and SMAQMD are working together to reduce these emissions from the source. Meanwhile, proposed General Plan Policy AQ-3 requires that buffers be set to provide for separation between sensitive land uses and sources of pollution or odor. This policy will help to reduce this impact, but not to a less-than-significant level.	S	Refer to General Plan Policy AQ-3. No further mitigation recommended.	SU
Elevated Health Risks From Exposure of Sensitive Receptors to Roadway Emissions			
Based on modeling, potential cancer risks from roadway emissions would vary between 13 and 121 in one million, well in excess of the threshold of 10 in one million. General Plan Policy AQ-3 will help to reduce this impact, but not to a less-than-significant level.	S	Refer to General Plan Policy AQ-3. No further mitigation recommended.	SU
Elevated Health Risks From Exposure of Sensitive Receptors to Other Emission Sources			
Sensitive land uses located in closer proximity to types of Toxic Air Contaminants sources, such as roadways and refineries, could experience elevated health risks. General Plan Policy AQ-3 will help to reduce this impact, but not to a less-than-significant level.	S	Refer to General Plan Policy AQ-3. No further mitigation recommended.	SU
CLIMATE CHANGE			
Climate change has the potential to cause significant impacts to the County, and implementation of the proposed General Plan has the potential to contribute significant greenhouse gas emissions. Though mitigation is included to offset these impacts, climate change is a global phenomenon that requires the participation of the world in order to adequately address. Even if the County ‘s portion	S	**CC-1.** The following policy shall be added to the General Plan: It is the goal of the County to reduce greenhouse gas emissions to 1990 levels by the year 2020. This shall be achieved through a mix of State and local action. **CC-2.** The following shall be included as implementation measures to the policy required by CC-1:	SU

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
of the necessary emissions reduction is successfully accomplished, the negative effects of climate change will still result unless all others are likewise successful. Furthermore, as additional data is collected and refinements to modeling are made, it may be that the current estimated amount needed to offset severe climate change effects will change, and County actions will not have been enough.		A. The County shall adopt a first-phase Climate Action Plan, concurrent with approval of the General Plan update, that contains the following elements and policies: a. The County shall complete a GHG emissions inventory every three years to track progress with meeting emission reduction targets. b. The County shall adopt a Green Building Program **by 2012**, which shall be updated a minimum of every 5 years. c. The County shall enact a Climate Change Program that includes the following: i. A fee assessed for all new development projects for the purpose of funding the ongoing oversight and maintenance of the Climate Action Plan. ii. Reduction targets that apply to new development **(Table CC-9)**. d. A section on Targets that discusses the 2020 reduction target. B. The County shall adopt a second-phase Climate Action Plan within one year of adoption of the General Plan update that includes economic analysis and detailed programs and performance measures, **including timelines and the estimated amount of reduction expected from each measure**. C. The County shall update the Energy Element of the General Plan to include policies related to alternative energy production within the County, which may include a General Plan Land Use Diagram overlay designation reflecting prime or allowable areas for alternative energy production (such as solar or wind farms).	

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
GEOLOGY AND SOILS			
Erosion, Seismicity, Unstable Soils			
The project does not include significant changes to existing policies related to geology and soils, and all policies are beneficial. A combination of existing County Ordinances and State laws (such as the Uniform Building Code) will ensure that future development will not cause substantial erosion, be subject to substantial hazards associated with seismicity, or be subject to substantial hazards associated with unstable or expansive soils.	LS	None recommended.	LS
Mineral Resources			
There are aggregate resource areas within the Jackson Highway Corridor. Growth within this area has the potential to result in obstruction of access to and removal of mineral resources. The resource areas in this location are extensive, and the resource itself is not renewable, so no mitigation for this loss is possible.	S	None available.	SU
HAZARDOUS MATERIALS			
There are existing cleanup sites associated primarily with leaking underground storage tanks within all of the Commercial Corridors and within the Jackson Highway Corridor. Cleanup of these sites would be required before development on the affected properties can take place. There is also some potential for undiscovered toxics to be found as development proceeds, but application of current laws and regulations will ensure that any contaminated sites are identified and contained or remediated prior to development. Existing older structures may contain asbestos or lead. The emission of these hazardous materials during demolition activities will be prevented through adherence to existing regulations and laws.	LS	None recommended.	LS

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
CULTURAL RESOURCES			
Archeological Resources			
Although General Plan policies and measures are intended to protect archaeological resources, direct and indirect impacts to archaeological resources can still occur. Ground-disturbing activities can directly damage resources such that the significance of that resource is undermined completely. Due to the nature of archaeological resources, specifically the fact that they are often subsurface and completely obscured from view, impacts can occur inadvertently on project sites that have been completely surveyed for archaeological resources with negative findings. Due to the uncertainty of future development and associated cultural resource impacts at the project-specific level and that no feasible mitigation is available, the impact is *significant and unavoidable*.	S	None recommended or available.	SU

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Historical/Structural Resources			
Although the proposed and existing policies provide the foundation for preservation of historical resources, some of the supporting polices that would specifically guide development are lacking in the current update. Furthermore, even with implementation of these policies and with best efforts made to discover and protect important resources, impacts can be inadvertent and significant. Due to the uncertainty of future development and associated historical resources impacts at the project-specific level, impacts to historical/architectural resources are considered *significant and unavoidable*.	S	**CR-1.** The following policies shall be added to the Cultural Resources chapter of the Conservation Element: A. County Planning staff shall take historical and cultural resources into consideration when conducting planning studies and documents in preparation of, including but not limited to, area plans, corridor plans, community plans, and specific plans. B. When conducting planning studies, County Planning staff, shall encourage the adaptive reuse of historic resources when the original use is no longer feasible or allowed under proposed area planning efforts. C. County-owned historic and cultural resources shall be preserved and maintained, such that modifications, alterations, and rehabilitations are conducted in a manner that is consistent with the U.S. Secretary of the Interiors Standards for the Treatment of Historic Properties. D. The County shall facilitate and promote the development of a Cultural Resources Tourism program within the County as a tool to preserve important cultural resources and in order to encourage economic development of resources within the County.	SU

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Cultural Resources			
According to the record search conducted at the North Central Information Center, there are three recorded resources within the "West of Watt" growth area, thirty within the Jackson Highway Corridor, thirteen within the Easton area, and thirteen within the Grant Line East area. Impacts related to Easton were determined to be *less than significant* with the application of mitigation, but impacts in all the other growth areas are *potentially significant* or *significant and unavoidable*. Both the Commercial Corridors growth strategy and the infill strategy may result in significant impacts to cultural resources. Prehistoric sites are typically obscured from view in more urbanized environments, due to historic uses and natural reburial processes, so the discovery of resources cannot be discounted. Due to the uncertainties of potential impacts, impacts to cultural resources as a result of both of these strategies are considered *significant and unavoidable*.	S	None recommended or available.	SU

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
Paleontological Resources			
Neither the current General Plan nor the proposed General Plan Update specifically addresses paleontological resources. As a result, paleontological resources are currently at risk for unintentional destruction. It is reasonably foreseeable that implementation of the General Plan Update, including the proposed growth strategies, could result in impacts to paleontological resources. Therefore, impacts to paleontological resources as a result of the General Plan update are considered *significant and unavoidable*.	S	**CR-2.** The General Plan shall add an additional section under the "Cultural Resources" chapter of the Conservation Element entitled "Paleontological Resources" that provides background on Paleontological Resources in general and specifically within the County. The following policies shall be added to the Paleontological Resources section of the Cultural Resources chapter of the Conservation Element: A. As a condition of approval for discretionary projects, require appropriate mitigation to reduce potential impacts where development could adversely affect paleontological resources. B. Projects located within areas known to be sensitive for paleontological resources, should be monitored to ensure proper treatment of resources and to ensure crews follow proper reporting, safeguards and procedures. C. Require that a certified geologist or paleoresources consultant determine appropriate protection measures when resources are discovered during the course of development and land altering activities.	SU

Impacts	Level of Significance Before Mitigation [1]	Mitigation Measure	Level of Significance After Mitigation
AESTHETICS			
Visual Quality			
The development of infill areas, Commercial Corridors, West of Watt, and Easton will not substantially degrade visual character or quality. The visual characteristics of infill will be generally consistent with the existing viewshed, and the Commercial Corridors may improve visual quality by replacing older buildings with newer, cohesive designs. The West of Watt impacts would be similar to Commercial Corridor and infill impacts. The Easton viewshed is already impaired by existing industrial facilities, and development will be consistent with adjacent land uses. For the Grant Line East, Jackson Highway Corridor, and some of the planned communities, impacts are substantial. The existing viewsheds are rural and open space, and urban development is generally accepted to be less visually pleasing than open space.	S	None available.	SU
Glare and Nighttime Views			
Implementation of the Project would promote development of urban uses in existing rural areas such as the Jackson Highway Corridor and Grant Line East, which would result in an increase in light and glare. Given the limited development that exists in these areas, the increase in light and glare would be considered substantial. This increase would conflict with the rural nature of these areas and with the existing views from adjacent rural areas, which are characterized by large expanses of undeveloped open space with few sources of light and glare.	S	None available.	SU

2 PROJECT DESCRIPTION

INTRODUCTION

The project proposes the adoption of an updated General Plan for the County of Sacramento (Control Number 02-GPB-0105), henceforth described either as the proposed General Plan or as the Project. The existing Sacramento County General Plan, adopted in 1993, is approaching its time horizon of 2010. The proposed General Plan is intended to guide the growth and development of the County through the year 2030, though the proposed policies provide a framework for a longer-term view. The proposed General Plan is incorporated by reference to this EIR, and can be viewed at http://www.msa2.saccounty.net/planning/Pages/GeneralPlanUpdate.aspx or at the Sacramento County Department of Planning and Community Development, 827 7th Street, Room 230, Sacramento, CA 95814. Pertinent updated General Plan sections are described throughout this EIR.

PROJECT LOCATION

The Project covers the entire unincorporated portion of Sacramento County, which encompasses approximately 496,083 acres or 775 square miles (refer to Plate PD-1). The incorporated areas within the County that are not part of the Sacramento County General Plan are the cities of Sacramento, Citrus Heights, Folsom, Rancho Cordova, Galt, Elk Grove and Isleton.

PROJECT PROPONENTS

APPLICANTS

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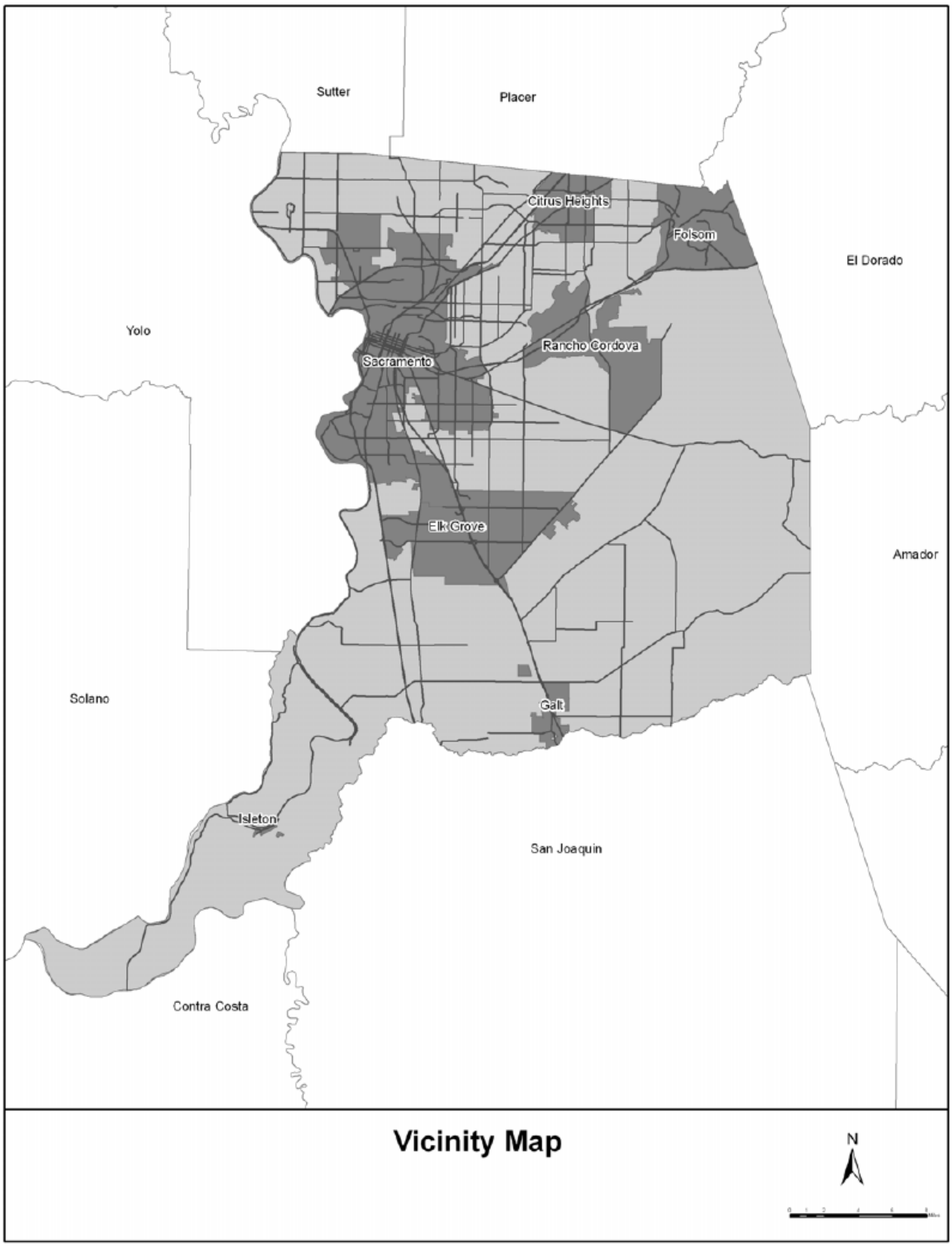
Plate PD-1 Sacramento County and Vicinity



ENVIRONMENTAL SETTING

Sacramento County lies within the Central Valley of California, and is the County seat of the state capitol of Sacramento. The County has a history as a center of government, trade, transportation and agriculture, and as a consequence the city of Sacramento is a major transportation hub. Interstates 80 and 5; U.S. Highway 50; and State Highways 99, 16 and 160 all extend from the outer edges of the County and converge in downtown Sacramento. Similarly, all of the rail lines in the County converge in Sacramento at the site of the old Sacramento Rail Yard. Airports include Sacramento International, Sacramento Executive, Mather Air Force Base, McClellan Air Force Base and other smaller airports. Each of these major transportation corridors or locations impacts the land uses in the vicinity.

The County is divided into 25 community areas, some of which are incorporated cities. Most of these communities are in the urbanized core in the western, northwestern or northern portion of the County. The southwestern, eastern and southern portions of the County are more agricultural and rural residential. Many portions of the developed County are within the historic floodplains of the three major rivers (Sacramento, American, and Cosumnes Rivers) and are protected by a system of levees.

PROJECT PROPOSAL

The Project includes many significant updates to General Plan Elements – an "Element" is like a chapter that focuses on a specific portion, or element, of the General Plan (e.g. Land Use). Other proposed changes to Elements are minor, and for some Elements the Project does not include any proposed changes. Below is a summary of proposed changes. All of the referenced exhibits are at the end of the chapter.

ELEMENTS WITH MAJOR UPDATES

- *Land Use Element & Land Use Diagram:* Major changes to growth management strategies, as well as a number of new topics, including a new section focusing on preservation and enhancement of existing communities. Land use focuses on four growth strategies: infill development, buildout of planned communities, revitalization of commercial corridors and new growth areas. Potential new growth areas have been identified, and a proposal to expand the Urban Policy Area has been included (refer to Plate PD-3, Plate PD-4, Plate PD-5, and Plate PD-6).
- *Circulation Element & Transportation Plan:* Nearly a complete rewrite to focus on overall mobility and creation of a multi-modal transportation system (refer to Plate PD-7).
- *Conservation Element:* Comprehensive update that creates a holistic ecosystem approach to preservation of natural resources and reflects the

current regulatory environment and local initiatives, including the South Sacramento Habitat Conservation Plan.

- *Open Space Element:* New Open Space Vision Diagram, new open space definition, and policies that establish trails and greenbelts to provide for recreational opportunities and community separators.
- *Agricultural Element:* New policies that support and encourage an agritourism program and protect important farmland.
- *Human Services Element:* Complete rewrite that focuses on integrating human services considerations with the land use planning and decision making process.
- *Noise Element:* Complete rewrite to address the County's current noise environment and clarify application of previously ambiguous standards.

INFILL DEVELOPMENT

This strategy assumes that vacant properties will be developed, and that properties that are developed to less density than the existing land use designations allow (underutilized lands) will be fully developed. The proposed General Plan estimates that between 10,000 and 18,000 housing units could be accommodated by implementation of this strategy.

BUILDOUT OF PLANNED COMMUNITIES

There are several Community Plans and Specific Plans that are either approved or proposed that have not been developed to their identified holding capacity. The proposed General Plan assumes that these incomplete communities will finish developing within the 2030 time horizon of the General Plan. It is estimated that this process will result in an additional 25,000 to 35,000 housing units. Each of these planned communities went through a public hearing process, during which time an EIR was prepared, published, and certified. The planned communities are: Elverta, East Antelope, Vineyard Springs, North Vineyard Station, and Florin Vineyard 'Gap'.

COMMERCIAL CORRIDORS

There are many aging commercial developments along key roadway corridors in Sacramento County. As part of the General Plan update process, staff identified 14 corridors that could be revitalized by developing mixed-use centers and urban villages. The proposed General Plan estimates that approximately 19,000 housing units could be accommodated by implementation of this strategy.

NEW GROWTH AREAS

The proposed General Plan identifies four areas as New Growth Areas: West of Watt, Easton, Jackson Highway Corridor, and Grant Line East. The West of Watt area is an underutilized section of Watt Avenue that has been prevented from developing by the noise contours in the Comprehensive Land Use Plan for the former McClellan Air Force

Base. The old noise contours were established based on military usage of the airport, and have since been revised based on the latest airport usage data. The contours no longer encumber the West of Watt area. It is estimated that this growth area can accommodate between 2,500 and 6,000 housing units.

The Easton area is not being driven by the General Plan. A private application for this planning area was submitted to the County in 2004, and the Draft EIR was released in March of 2008. Nonetheless, because the separate Easton project includes an amendment to the Urban Policy Area of the General Plan, it is identified as a New Growth Area. It is estimated that this growth area can accommodate between 4,000 and 6,000 housing units.

The Jackson Highway Corridor and the Grant Line East New Growth Areas are different from the first two growth areas, because they are both large (approximately 12,000 and 8,000 acres, respectively) and involve significant expansions of the Urban Policy Area. The Jackson Highway Corridor encompasses land on the northern and southern sides of Highway 16, beginning at South Watt Avenue and ending at Sunrise Boulevard. Grant Line East begins on the eastern side of Grant Line Road and ends at the Urban Services Boundary. It is estimated that the Jackson Highway Corridor can accommodate between 30,000 and 41,000 units, and that Grant Line East can accommodate between 15,000 and 23,000 units.

ELEMENTS WITH MINOR UPDATES

The General Plan Update project proposes relatively minor policy changes to the following Elements:

- *Air Quality Element*
- *Public Facilities Element*
- *Safety Element*
- *Hazardous Materials Element*

ELEMENTS WITH NO CHANGES

- *Housing Element*: The current Housing Element was adopted in 2004. Unlike other Elements, California state law requires that the Housing Element be updated every seven years. As such, an updated Housing Element will be adopted in the coming years separate from this General Plan Update project.
- *Energy Element*: Updating the Energy Element was not part of the scope of the General Plan Update project.

NEW ELEMENTS

- *Economic Development Element:* New Element that establishes a policy basis for the development and implementation of a County-wide economic development strategy.
- *Delta Protection Element:* The “Land Use and Resource Management Plan for the Primary Zone of the Delta,” a policy plan that was adopted into the existing

Plan during the 1990's, was repackaged as an Element of the Draft General Plan to increase its visibility. However, since these policies were already adopted into the existing General Plan, this "new Element" actually does not represent the adoption of new policies or policy direction for the County.

DELETED ELEMENTS

The following Elements are being deleted because they are either no longer relevant and/or the concepts that they contain are addressed in other Elements of the Draft General Plan:

- *Scenic Highways Element*
- *Plan Administration Element*
- *Community Planning:* Merely listed all community plans adopted into the General Plan, but contained no policies.

To read each proposed Element in its entirety and to view all of the Project exhibits, please go to the following website:
http://www.msa2.saccounty.net/planning/Pages/GeneralPlanUpdate.aspx

TOTAL HOLDING CAPACITY

Using the ranges provided in the proposed Land Use Element (Table 4), as well as updated information from the Planning Department, it is estimated that the proposed General Plan could accommodate between 103,500 and 150,000 new housing units.

PROJECT ALTERNATIVES

As part of the public hearing and scoping process to create the Draft 2030 General Plan, members of the Sacramento County Board of Supervisors discussed areas where changes to the Draft General Plan should be considered by staff. These alternatives to aspects of the Draft General Plan are described below. These are not CEQA alternatives – the CEQA alternatives are described in the CEQA Alternatives section of this chapter.

ARTERIAL DOWNGRADE PROJECT ALTERNATIVE

The Project includes an updated Transportation Plan diagram that designates roadway facility uses and widths (e.g. 6-lane thoroughfare). Some of the roadway designations reflect existing constructed widths and conditions, while some reflect planned widths. A downgrade is typically the physical conversion of an existing larger roadway facility to a smaller roadway facility – from 6 lanes to 4 lanes, for instance. Though the word "downgrade" is used, this Project alternative does not involve downgrades of existing physical structures. Commensurate with direction from Board members, the Project alternative will only apply to facilities whose constructed widths are less than the widths

designated on the Transportation Plan. In such cases, the roadway width designation would be downgraded on the Transportation Plan to the next smallest facility. The identified list of facilities is as follows:

- Dry Creek Road from 4 to 2 lanes
- West 6th Street from 4 to 2 lanes
- U Street (from Watt Avenue to 24th Street) from 4 to 2 lanes
- Removal of Dry Creek crossing of U Street, and instead creation of a cul-de-sac at 24th and U Street to the East of Dry Creek
- Eagles Nest Road (from Jackson to Grantline Road) from 4 to 2 lanes
- All other planned 4-lane roadways in Rio Linda/Elverta to 2 lanes

THOROUGHFARE DOWNGRADE PROJECT ALTERNATIVE

This alternative will examine the effects of re-designating all designated, but not-yet-built, 6-lane thoroughfares to 4-lane arterials. Any of these unbuilt roadways that are so designated but that are already in the planning stages (e.g. funding has been secured, applications have been submitted, etc) are not considered, such as:

- Hazel Avenue from Gold Country Boulevard to Madison Avenue
- Madison Avenue from Fair Oaks Boulevard to Hazel Avenue

AMENDMENT TO POLICY AG-5 PROJECT ALTERNATIVE

Agricultural Element Policy 5 (AG-5) reads as follows:

> Mitigate within Sacramento County the loss of prime, statewide importance, unique and local importance farmlands or lands with intensive agricultural investments through the specific planning process and individual project entitlement requests to provide in-kind protection (must be an equal or higher farmland category), such as easements for agricultural purposes of nearby farmland.

Members of the Board were interested in knowing about the environmental effects which could result from allowing mitigation to take place outside of Sacramento County. A distance outside the County was not specified, so part of the analysis of this Project Alternative included obtaining comments from the Agricultural Commissioner (and similar representatives/agencies) to determine whether mitigation outside the County is acceptable, and if so, by what distance.

PROJECT OBJECTIVES

The Project is intended to guide the growth and development of the County through the year 2030, and includes the following principle objectives:

- Address key challenges and opportunities, including continued growth, traffic congestion, incorporations and annexations, and a new era of regional cooperation.
- Create a sense of place, preserve and/or enhance community identity and character, decentralize County services, and encourage housing diversity and affordability in existing communities.
- Revitalize aging commercial corridors to improve community quality of life, optimize economic development, promote balanced development and upgrade existing infrastructure.
- Include new and updated policies that better link land-use and transportation planning and decision-making, as well as facilitate implementation of such concepts.
- Refine the Open Space Vision diagram and various policies to reflect preservation strategies in the South Sacramento Habitat Conservation Plan.
- Adopt a new Economic Development Element with policies that will help the County retain local businesses, attract new industries, support the tax base, and sustain the ability to provide public services to current and future residents.
- Accommodate the Blueprint Vision's growth assumptions and principles.
- Adopt an updated Land Use Diagram and Transportation Plan that reflect the new and modified growth management policies developed to accommodate the Blueprint growth allocation.
- Maintain a planning horizon that is consistent with the Blueprint Vision and Metropolitan Transportation Plan, which is the year 2030.

CEQA ALTERNATIVES

According to Section 15126.6 of the California Environmental Quality Act (CEQA) Guidelines:

> An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives.

The purpose of this section is to identify alternative project designs that would mitigate, lessen or avoid the significant effects of the Project.

To foster meaningful public discussion and informed decision-making, a range of reasonable alternatives to the Project is provided. This range includes the "No Project" alternative, the purpose of which is to allow the hearing body to compare the impacts of approving the Project to the impacts of not approving the Project. The "No Project" alternative describes what would happen if the existing General Plan were to remain in effect. In addition to the No Project alternative, there are three additional alternatives discussed below. These are: Alternative 1, which removes the Grant Line East New Growth Area; Alternative 2, which removes the Grant Line East New Growth Area and reduces the size of the Jackson Highway Corridor New Growth Area; and Alternative 3, which removes both the Grant Line East and Jackson Highway Corridor New Growth areas and accommodates projected growth within the existing urbanized areas.

The Sacramento Area Council of Government's (SACOG's) Blueprint project and the smart growth principles contained within it are the drivers for the first three Alternatives. The Blueprint estimates that the County would need to accommodate approximately 99,700 additional housing units by 2030; the Project identifies enough new growth area to accommodate up to 150,000 housing units. From 1 – 3, the Alternatives become successively more consistent with the Blueprint projected housing allocation and the smart growth principles (refer to the Land Use chapter for a discussion of the principles).

NO PROJECT ALTERNATIVE

The No Project Alternative includes the buildout of the 1993 General Plan along with reasonably foreseeable development. Reasonably foreseeable development in this Alternative includes the Easton project and the Cordova Hills project. Buildout of the 1993 General Plan includes the development of all remaining vacant parcels in the Urban Policy Area in accordance with General Plan land use designations, and buildout of the new growth areas that had been identified in the 1993 General Plan. The new growth areas were all the subject of master planning activities subsequent to adoption of the 1993 General Plan, and these are: the Elverta Specific Plan (adopted in 2008), the East Antelope Specific Plan (adopted in 1995), the Vineyard Springs Comprehensive Plan (adopted in 2000), the North Vineyard Station Specific Plan (adopted in 1998), and the Florin Vineyard Gap Community Plan (pending). **The Sacramento County Planning and Community Development Department project description indicated that the 1993 General Plan could accommodate 43,200 dwelling units. Adding to this the approximate amount of units approved for the Easton area (4,800) and the number of units assumed for the Cordova Hills project (8,300), t**he total growth assumed in the No Project Alternative is up to **56,300** ~~55,000~~ dwelling units.

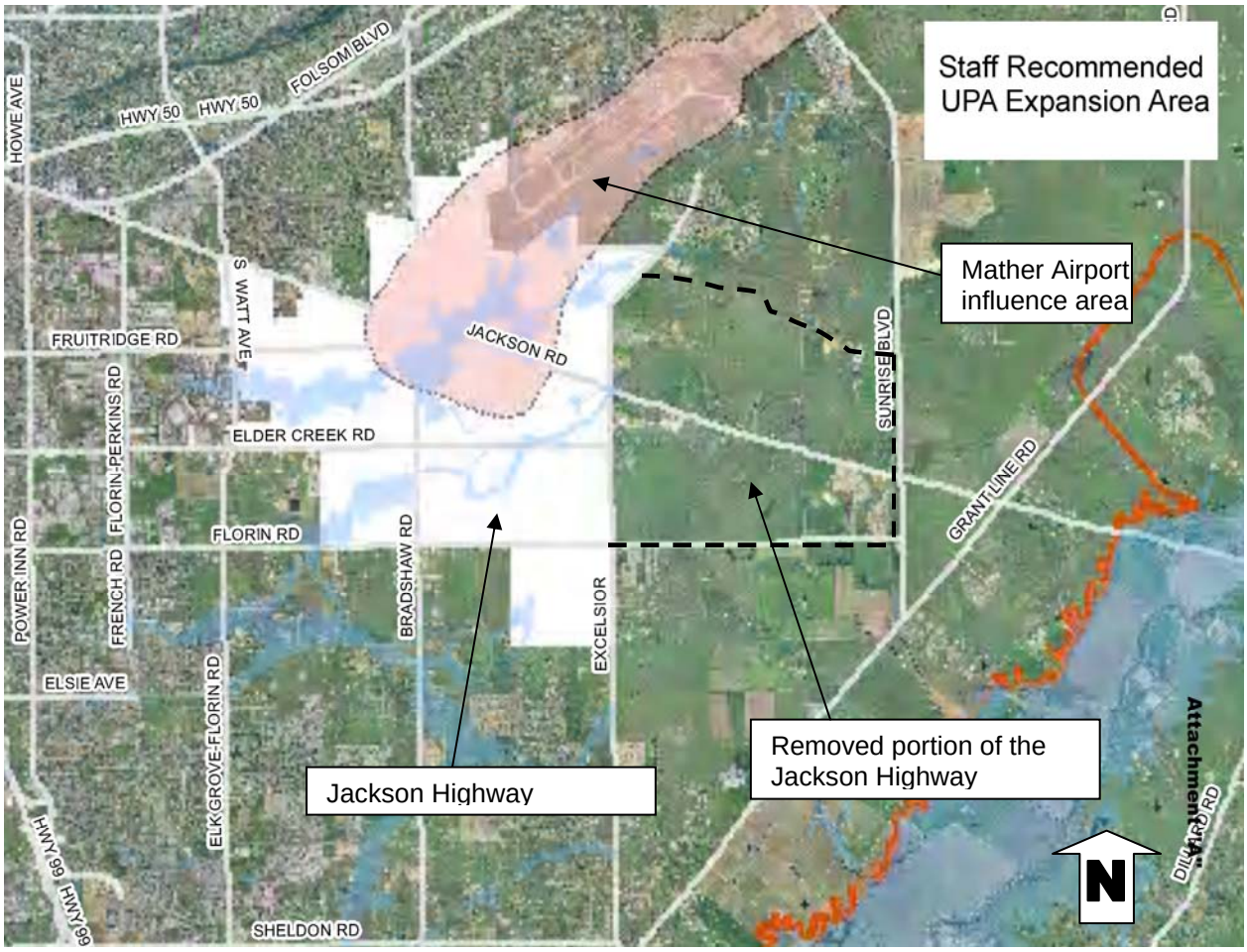
ALTERNATIVE 1: REMOVE GRANT LINE EAST

As described in subsequent chapters, there are a number of significant impacts associated with buildout of Grant Line East because of the lack of existing infrastructure and large areas of sensitive natural resources. The purpose of this Alternative is to eliminate those impacts by removing Grant Line East entirely. This Alternative reduces the potential buildout target to 113,000 dwelling units.

ALTERNATIVE 2: FOCUSED GROWTH

The original Land Use Diagram brought forward by the Planning Department to the Board of Supervisors did not include the Grant Line East New Growth Area, and the Jackson Highway Corridor Growth Area encompassed approximately 4,000 fewer acres than the current version (8,000 acres, instead of 12,000). Under Alternative 2, the Project would revert to this original proposed footprint. Plate PD-2 depicts the Jackson Highway Corridor Growth Area under Alternative 2. As shown, the Growth Area would stop at Excelsior Road, rather than continuing on to Sunrise Boulevard. In addition to reducing the footprint, the Alternative also increases densities so that essentially the same number of units allocated to the larger Jackson Highway Corridor will be allocated to this smaller growth area. It is estimated that the proposed Jackson Highway Corridor will have average densities of 10 dwelling units to the acre. Alternative 2 assumes an average density of 15 dwelling units to the acre. The result is that Alternative 2, like Alternative 1, reduces the potential buildout target to 113,000 dwelling units.

Plate PD-2 Alternative 2: Focused Growth Alternative



ALTERNATIVE 3: MIXED USE

Under Alternative 3, the residential holding capacity projected by SACOG would be accommodated in existing planned growth areas (e.g. Elverta Specific Plan), through mixed use projects in the existing urbanized sphere, and through development of underutilized land. The purpose of the Alternative is to protect existing undeveloped open space, reduce vehicle miles traveled, and to consolidate development and the corresponding revenue to support existing services. This Alternative reduces the potential buildout target to 100,000 dwelling units.

The Grant Line East and the Jackson Highway Corridor New Growth Areas are located outside existing urbanized areas on what is predominantly undeveloped open space, so these areas are not included in Alternative 3. The West of Watt area is within the urbanized area on a highly-traveled thoroughfare that is substantially developed, so this Growth Area is included in Alternative 3. The Easton Planning Area is on brownfields (contaminated land subject to past industrial use), and is already the subject of a development and reclamation plan (as previously mentioned), so this Growth Area is also included in Alternative 3.

Alternative 3 assumes that if the General Plan does not identify large new growth areas, the inevitable need for new housing will result in increased focus on revitalization of existing urbanized areas and infill development. This growth in the urbanized core will be facilitated by several factors, including upzoning of RD-20 properties to RD-30 in response to affordable housing needs, the inclusion of less restrictive accessory dwelling standards in response to the needs of an aging population, and market-rate upzones throughout the County (but particularly in areas such as the undeveloped eastern side of the North Vineyard Station Specific Plan). These three strategies have the potential to generate an estimated 15,700 additional dwelling units, and are supported by proposed changes to General Plan policy (refer to the Land Use chapter) and changes to the Transportation Plan (refer to the Traffic and Circulation chapter).

SUMMARY OF ALTERNATIVES

Table 4 of the proposed Land Use Element is a breakdown of the housing allocations that could be accommodated by the various growth strategies of the proposed General Plan. However, the Table 4 housing allocations for the Jackson Highway Corridor are based on earlier estimates for the area, rather than a specific constraints and developable area analysis, and the allocations for the Grant Line East area were not yet available. Since that time, the Planning Department generated more appropriate allocations for the Jackson Highway Corridor, and developed allocations for Grant Line East. Table PD-1, below, uses the information from Table 4 of the Land Use Element and the subsequent Planning Department work and compares it to the buildout targets identified for the Alternatives.

Table PD-1 Comparison of Residential Dwelling Unit Allocations – Project to Alternatives

Growth Accommodation Strategy	Project Holding Capacity[1]	Alternative 1 Buildout Targets[2]	Alternative 2 Buildout Targets[3]	Alternative 3 Buildout Targets[4]
Buildout of Vacant and Underutilized Infill Parcels Outside of Commercial Corridors	10,000 – 18,000	18,000	18,000	32,900[5]
Buildout of Planned Communities	25,000 – 35,000	32,000	32,000	35,800[6]
Commercial Corridors (Identified)	17,000 – 21,000	19,000	19,000	19,000
New Growth Areas				
• West of Watt	2,500 – 6,000	4,000	4,000	6,000
• Easton	4,000 – 6,000	5,000	5,000	6,000
• Jackson Highway Corridor	30,000 – 41,000	35,000 (10 du/ac)	35,000 (15 du/ac)	0
• Grant Line East	15,000 – 23,000	0	0	0
TOTAL	*103,500 – 150,000*	*113,000*	*113,000*	*99,700*

All reported dwelling unit totals are rounded to the nearest thousand.

Based on the SACOG Blueprint, Sacramento County will need approximately 100,000 dwelling units within the 2030 time horizon.

1. From the Draft Land Use Element Table 4, modified to include updated information from the Planning Department on the Jackson Highway Corridor and Grant Line East.
2. Eliminates Grant Line East. Jackson Highway Corridor density is an average of 10 dwelling units per acre.
3. Eliminates Grant Line East and reduces Jackson Highway Corridor from ~12,000 acres to ~8,000 acres, with an average density of 15 dwelling units per acre.
4. Eliminates the Jackson Highway Corridor and Grant Line East, assumes the highest reasonable densities in the other identified growth accommodation areas, and identifies additional Commercial Corridors.
5. Additional 2,000 units from upzoning existing RD-20 property to RD-30, additional 4,400 from inclusion of less restrictive accessory dwelling standards, and additional 8,500 units from market-driven rezones of 40% of existing RD-1 to RD-3 parcels to RD-5.
6. Additional 800 units from upzones as a result of policies allowing density bonuses related to affordable housing and green innovation, and from market-driven upzones in the eastern portion of the North Vineyard Station Specific Plan.

INTENDED USE OF THE EIR

This EIR is an informational document that will help to inform decision-makers, agencies, and the public of the environmental consequences of the Project, and provide ways to minimize impacts either through mitigation or through alternative proposals (CEQA Guidelines Section 15121). The EIR will serve as substantial evidence to support decisions that the Board of Supervisors ultimately makes regarding the Project. The EIR may also be used by outside agencies. While outside agency approvals or permits are not necessary for this General Plan Update, the updated General Plan would be used for later actions that would require permits or authorizations from, such as subdivisions, rezoning, funding for capital improvements or approval of other private development proposals. These subsequent implementing actions may require approval from local, regional, state and federal agencies that include, but are not limited to, the following:

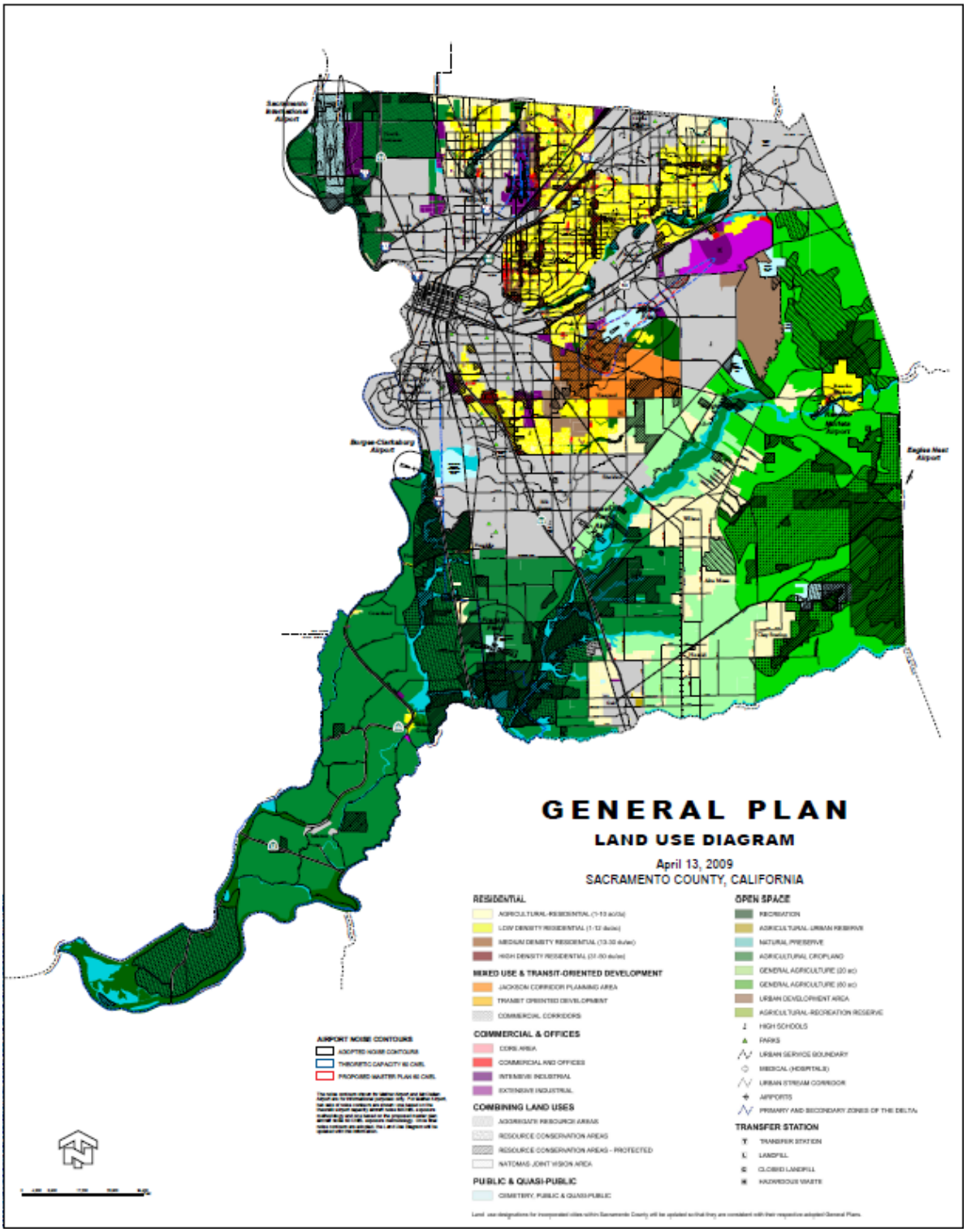
- California Department of Transportation and other agency approvals related to improvements and/or funding for changes to State highway or freeway facilities.
- California Department of Fish and Game permits for development approvals that involve changes to waterways or potential take of listed wildlife and plant species protected by the California Endangered Species Act.
- Central Valley Regional Water Quality Control Board approval of new or amended Waste Discharge Requirements related to sewer facilities, or permits for development approvals that involve dredge or fill activities within Waters of the State.
- United States Army Corps of Engineers permits for development approvals that involve dredge or fill activities within Waters of the United States.
- United States Fish and Wildlife Service permits for development approvals that involve potential take of listed wildlife or plants species protected by the Federal Endangered Species Act (or their habitats).
- State Water Resources Control Board permits for coverage under the State General Construction Activity Storm Water Permit.
- Sacramento County Local Agency Formation Commission approval of future requests for the formation, incorporation, consolidation or reorganization of special districts that provide services within the County.
- Various public and private utility district approvals for extension of service and/or expansion of infrastructure.
- Various public and private water purveyors agreement to provide service to new development.

The CEQA Guidelines also requires disclosure of all known Responsible and Trustee Agencies that may have jurisdiction over resources that may be affected by the Project.

A Trustee agency refers to a State agency with jurisdiction over natural resources held in trust for the people of the State of California. Responsible Agencies include public agencies with discretionary authority associated either with a Project or with implementation of a Project. The Sacramento County General Plan has a time horizon of 2030, so future implementing decisions may occur many years after Project approval. Therefore, it is difficult to know which responsible agencies may ultimately exercise discretionary authority. However, the following is a list of agencies that may act as Trustee or Responsible Agencies at some time:

- California Air Resources Board
- California Department of Conservation
- California Department of Fish and Game
- California Department of Forestry
- California Department of Mines and Geology
- California Department of Parks and Recreation
- California Department of Water Resources
- California Integrated Waste Management Board
- California Public Utilities Commission
- California State Lands Commission
- California Transportation Commission
- California Department of Transportation (District 3)
- Caltrans, Division of Aeronautics
- Central Valley Regional Water Quality Control Board
- Local Agency Formation Commission
- Metropolitan Transportation Commission
- National Marine Fisheries Service (NOAA)
- United States Army Corps of Engineers
- United States Bureau of Land Management
- United States Bureau of Reclamation
- United States Environmental Protection Agency
- United States Fish and Wildlife Service

Plate PD-3 Proposed Land Use Diagram



NOTE: Although the above exhibit has been provided here, there is too much detail on the image to be read in this context. If reviewers are interested in a more detailed view, please go to the following website, where a PDF document of the Land Use Element is available (the diagram is the last page of the Element): http://www.msa2.saccounty.net/planning/Pages/GeneralPlanUpdate.aspx

Plate PD-4 Proposed New Growth Areas

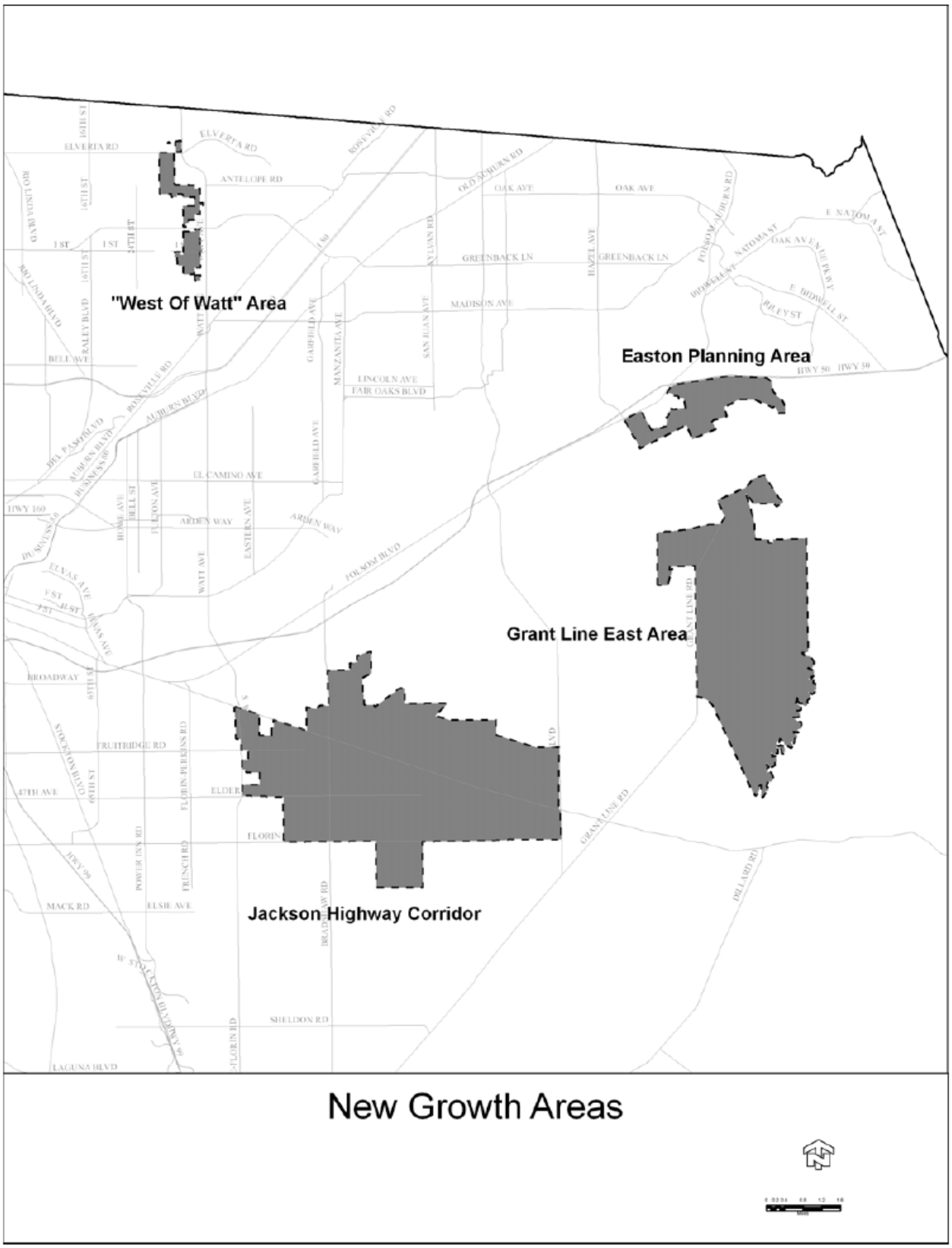


Plate PD-5 Existing and Proposed Urban Policy Area Boundaries (Revised in FEIR)

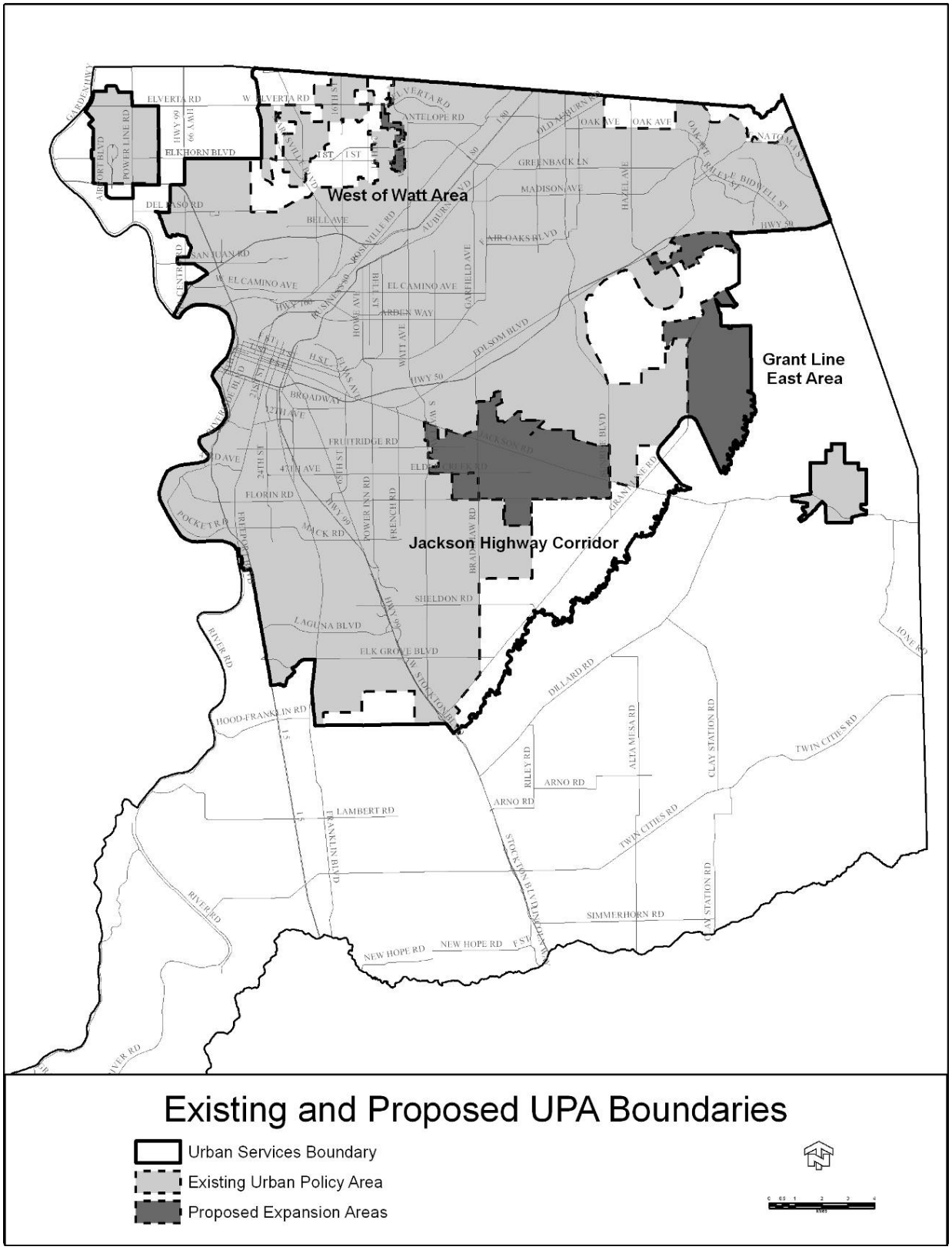


Plate PD-6 Identified Commercial Corridors for Transition to Mixed Use

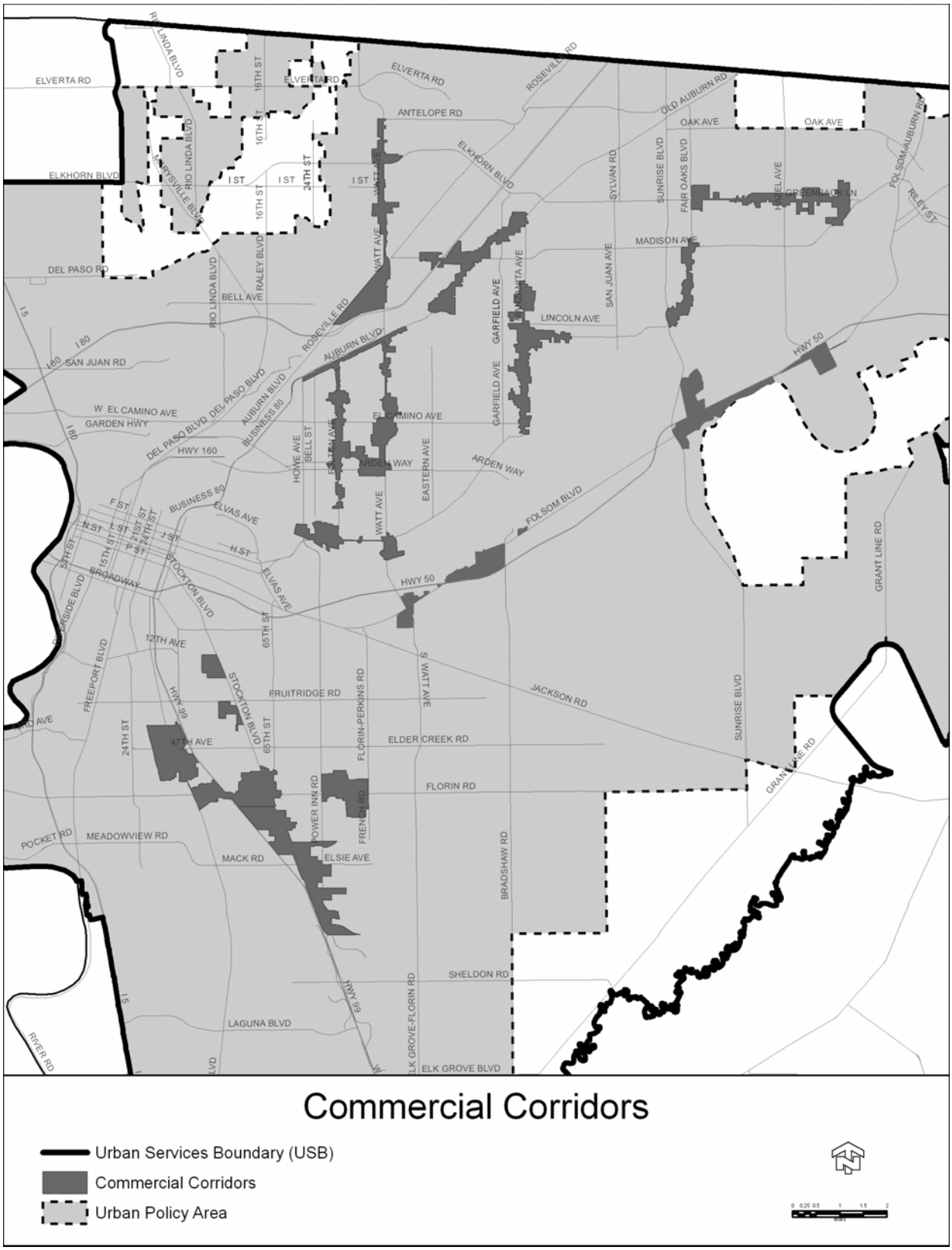
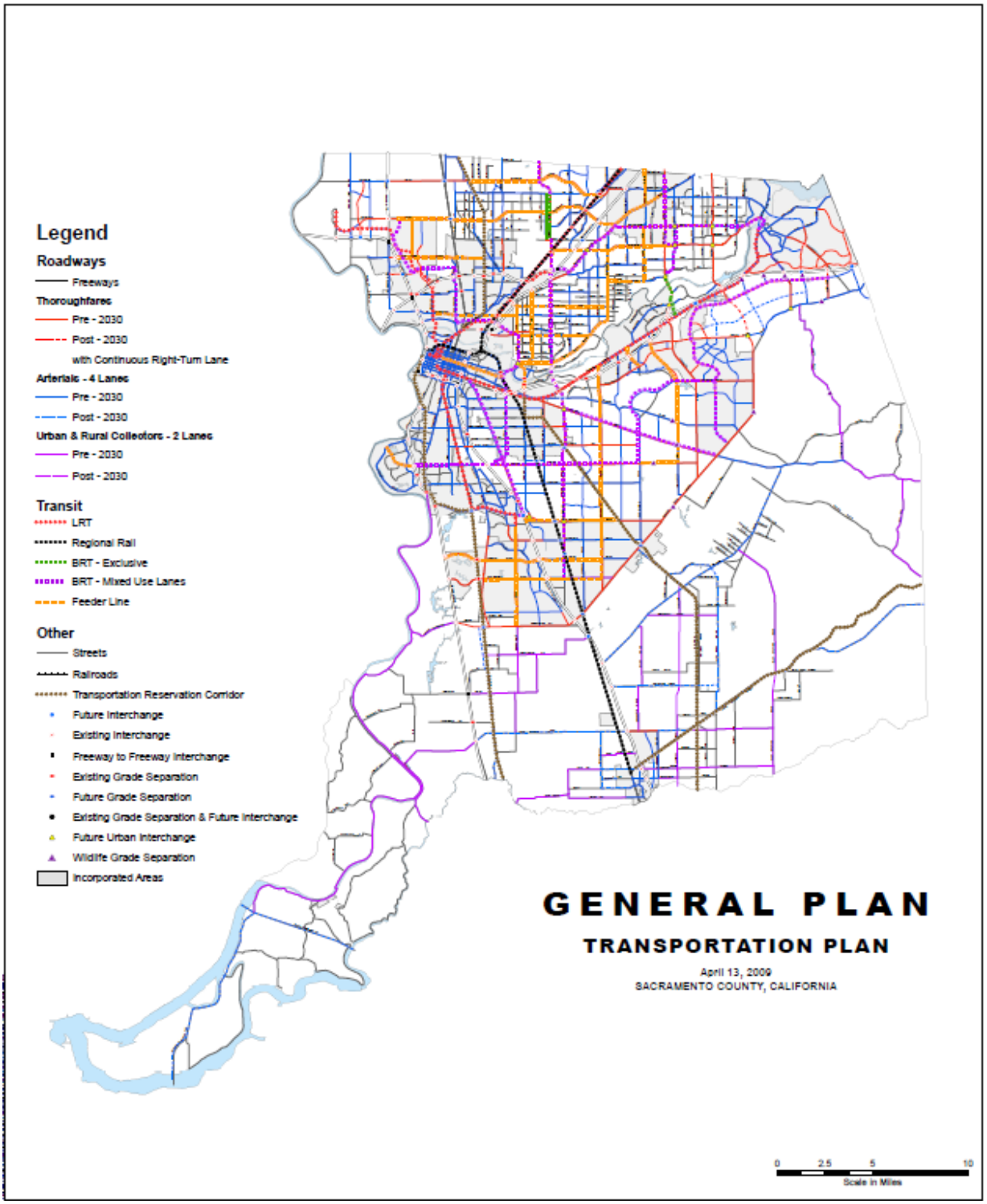


Plate PD-7 Proposed Transportation Plan



NOTE: Although the above exhibit has been provided here, there is too much detail on the image to be read in this context. If reviewers are interested in a more detailed view, please go to the following website, where a PDF document of the Circulation Element is available (the diagram is the last page of the Element): http://www.msa2.saccounty.net/planning/Pages/GeneralPlanUpdate.aspx

3 LAND USE

Mitigation Measure LU-3 has been modified. The measure already uses the bold, underlined text convention to denote recommended changes to proposed policy, so the change between DEIR and FEIR is not apparent. Reviewers should note that the bold, underlined text of the final bullet in measure LU-3 is new.

INTRODUCTION

In December of 2004 the Sacramento Area Council of Governments adopted a regional land use and transportation plan for the Sacramento region, which encompasses 6 counties, called the Blueprint Vision (Blueprint). The Blueprint strives to control sprawl by concentrating more of the anticipated growth within the urbanized cores of the study area. The Board of Supervisors decided to conceptually endorse the Blueprint and design the proposed General Plan based on the Blueprint growth assumptions and smart growth principles. The Blueprint project estimated that the County would need to accommodate 99,700 additional housing units by 2030. Developing "as usual", the actual holding capacity of the County's existing General Plan Urban Policy Area was estimated at 42,285 residential units. The proposed General Plan includes proposed new strategies, assumptions and land use proposals intended to accommodate additional growth in the County.

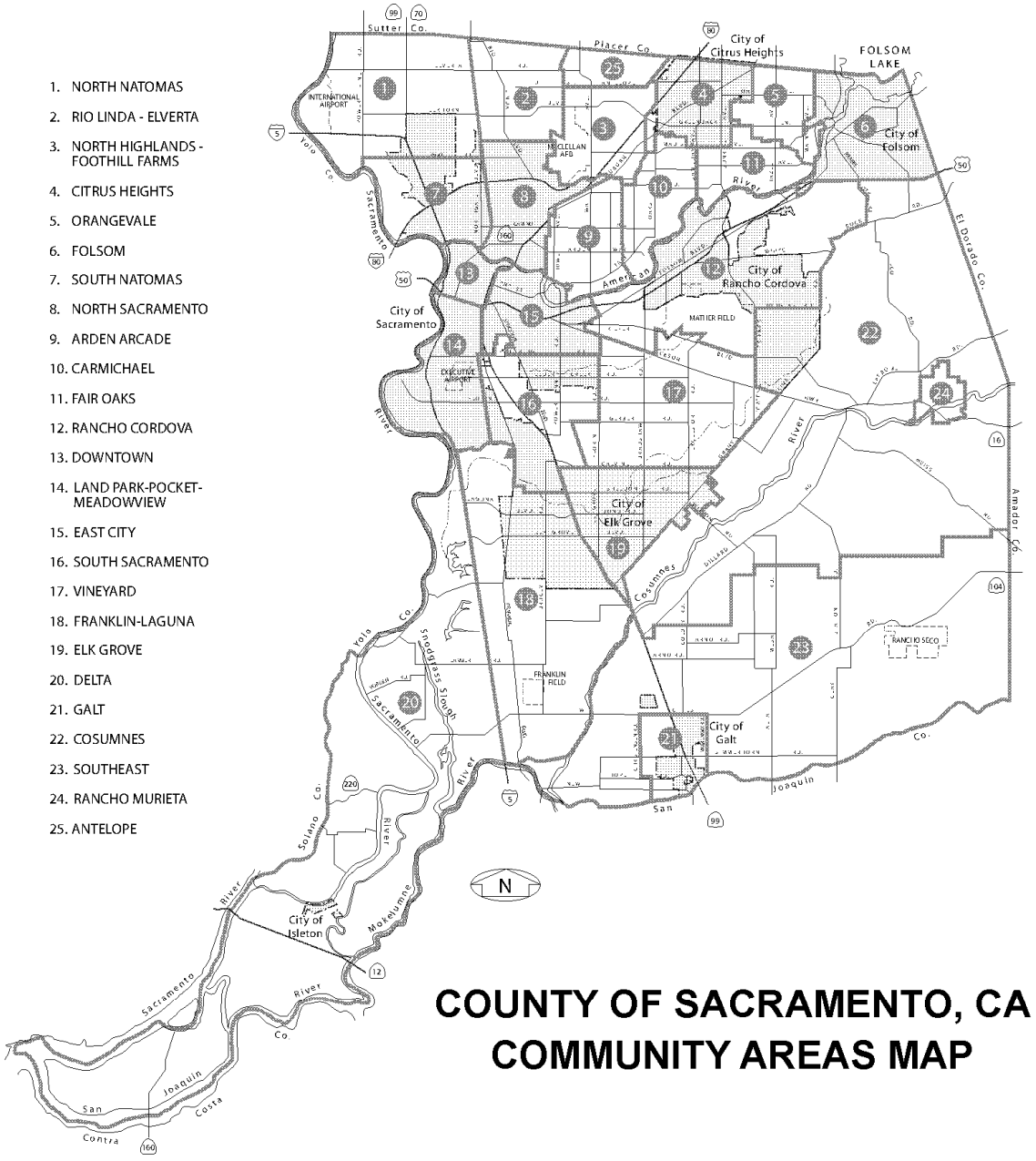
The proposed General Plan includes four distinct growth management strategies, which are buildout of vacant and underutilized infill parcels, buildout of previously master-planned communities, commercial corridor planning and revitalization, and expansion of the Urban Policy Area (i.e. New Growth Areas). The Planning Department describes the first two strategies as "assumption-based", because instead of proposing specific actions or changes to current growth management policies, these two strategies simply assume a continuation of current trends. On the other hand, the commercial corridors and the new growth area strategies require the County to implement specific programs to plan for new development.

As stated in the Project Description, the infill strategy will result in between 10,000 and 18,000 housing units, the commercial corridor strategy will result in between 17,000 and 21,000 housing units, and the buildout of master-planned areas will result 25,000 to 35,000 housing units. It is estimated that the West of Watt New Growth Area can accommodate 2,500 to 6,000 units, the Easton New Growth Area can accommodate 4,000 to 6,000 units, the Jackson Highway Corridor New Growth Area can accommodate between 30,000 and 41,000 units, and Grant Line East New Growth Area can accommodate between 15,000 and 23,000 units. Combined, these strategies result in between 103,500 and 150,000 additional housing units, which exceeds the number of units the Blueprint determined would need to be accommodated.

ENVIRONMENTAL SETTING

Sacramento County was incorporated in 1850 as one of the original 27 counties of the State of California, and is currently governed by the Board of Supervisors, with an appointed County Executive to run the day-to-day County business. As of the 2005 census, the County included 528,035 housing units, and was populated by over 1.3 million people. The County is bordered to the west by Yolo and Solano Counties, to the north by Sutter and Placer counties, the east by El Dorado and Amador counties, and to the south by San Joaquin and Contra Costa counties. Encompassing approximately 994 square miles, the County includes seven incorporated cities: Sacramento, Citrus Heights, Elk Grove, Folsom, Galt, Isleton and Rancho Cordova. Plate LA-1 is an exhibit indicating the identified community areas within the County.

Plate LA-1 Map of Communities within Sacramento County



S:\Misc Maps\community-areas-map.pdf (Last update 7/7/06)

REGULATORY SETTING

The following section provides summaries of the regulations or other governing land use documents that affect the Project. The section discusses the regulations from the top down; regulations of the broadest scope are first, and regulations with the narrowest (or most specific) scope discussed last.

SMART GROWTH

The current best management practices applicable to planning are described most commonly as "smart growth". The land use and environmental benefits of smart growth principles are recognized by environmental protection groups and governmental regulatory agencies alike, and as such these principles are treated as an applicable land use policy in this EIR. Various regulatory agencies, including the Environmental Protection Agency, have published documents on smart growth along with a set of principles. Depending on the publication source, the details of the text of the principles and their order varies, but the core principles remain the same. For the purposes of this analysis, the EIR relies on the principles as published in the SACOG Blueprint. The following is a summary of those principles:

1. Provide a variety of transportation choices, including walkable paths
2. Mix land uses
3. Take advantage of compact building and community design
4. Create a range of housing opportunities and choices
5. Strengthen and direct development toward existing communities
6. Foster distinctive, attractive communities with a strong sense of place
7. Preserve open space, farmland, natural beauty, and critical environmental areas

The ultimate purpose of smart growth is sustainable communities, and is a reaction to the recognized health and safety impacts of urban sprawl and vehicle-centric development strategies. Various studies have demonstrated that smart growth development significantly reduces impacts to air quality, water quality, open space/biological resources, and public health. A 2000 study found that compact development in New Jersey would produce 40 percent less water pollution than more dispersed development patterns (Rutgers University). A 2005 Seattle study found that residents of neighborhoods where land uses were mixed and streets are better connected, making non-auto travel easier and more convenient, traveled 26 percent fewer vehicle miles than residents of neighborhoods that were more dispersed and less connected (Lawrence Frank and Company). Smart growth development also promotes the clean-up and redevelopment of contaminated lands (brownfields), supports maintenance of infrastructure by concentrating post-development revenue into smaller

areas, and requires less extension of new infrastructure. It has also been demonstrated that the greenhouse gas emission reductions incorporated within California's Executive Order S-3-05 are unlikely to be achieved just through vehicle efficiency and development of low-carbon fuels – significant vehicle trip reductions will also be required (Yang, et. al.) and can be fostered through smart growth land use policies.

Terms such as smart growth and mixed use are used loosely in the media and elsewhere. A development is often called "smart growth" if it includes bus stops, pedestrian paths, higher density than the average for the jurisdiction, and nodes of commercial structures even if it is located in a non-urbanized open space area far from the urban core. However, this analysis relies on a strict definition of smart growth – a proposal must be consistent with all seven principles to be called smart growth. The following paragraphs expand on the seven principles, and describes both what does and does not satisfy each principle.

TRANSPORTATION

The first principle recommends a mix of transportation options, including walkable paths. This does not merely imply that there must be sidewalks, a bus turnout, and roadways. Those design elements are normal infrastructure required by existing development standards. A project must go beyond these minimums to satisfy the principle. The following paragraphs include some of the design elements that typify pedestrian-, bicycle-, and mass transit-friendly development.

Pedestrian-supportive development includes placing commercial and retail buildings close to the road rather than separated by large parking lots, building separated sidewalks with landscaping, avoidance of cul-de-sacs and non-linear street design that lengthens the distance from one place to another, placing amenities within 5 – 10 minutes walking distance, and the creation of community trails.

Bicycle-supportive development includes bicycle lanes on roads carrying higher volumes and/or speeds, avoidance of cul-de-sacs and non-linear street design, placement of secure bicycle parking facilities at all amenities, provision of showering facilities at places of employment, and providing a cash buy-out program for employees that do not use a parking space.

Transit supportive development includes creation of exclusive Bus Rapid Transit lanes, provision of queue-jump processes for buses, creation of bus stops at key locations, providing subsidies for employees who choose mass transit, institution of maintenance fees to support ongoing operation of transit, provision of high residential density along all mass transit routes to provide adequate ridership, provision of medium density in many non-corridor areas to support mass transit, provision of a jobs-housing balance within each community rather than just in the region as a whole, and location of development near existing transit lines and job centers.

MIXED-USE

A development is often called mixed use if two or more uses are proposed adjacent to one another. However, this type of project would be better described as multiple use. A mixed use project would involve multiple uses in the same building (e.g. a building with retail on the first floor and apartments on the second floor) or would at a minimum intersperse and blend multiple uses through a development rather than grouping most of the similar uses together. This involves the inclusion of neighborhood community retail centers, markets, and parks within a ¼ or ½ mile radius, rather than clustering these amenities in regional centers several miles from the average home.

COMPACT DESIGN

Compact building and community design refers to higher density development, cluster development, including multiple-story buildings, and including smaller buildings. The typical subdivision in Sacramento County is less than 5 dwelling units to the acre, whereas compact community design would involve a minimum of 10 dwelling units to the acre. In many typical subdivisions, the greenspace is divided up amongst all of the residential and commercial lots and fenced off, while in a cluster development homes and businesses would be given smaller private yards and clustered together facing a common greenspace. Townhomes and other types of housing products can be included to provide home square-footage without taking up additional land, and homes can be built with less square footage in general to avoid taking up additional land.

RANGE OF CHOICES

Many subdivisions provide only a handful of floorplans and often only one type of product. A smart growth development would include a range of house sizes and product types to accommodate the range of residents in the community. The needs of young single individuals differ from the needs of a family of 5, and differ again from the needs of seniors. The purchasing power of the different resident groups also varies. Rather than building predominantly single-family homes of several thousand square feet, developments should include cottages of 700 – 1,000 square feet, townhomes, condominiums, apartments, and other housing choices.

DEVELOP IN EXISTING COMMUNITIES

Directing development toward existing communities is accomplished by building on infill land and urban brownfields before developing greenfields, building on greenfields only after the prime infill and brownfield land is developed, and developing greenfields in a logical and phased progression beginning in those areas nearest to existing urban lands.

SENSE OF PLACE

Creating a sense of place, and creating distinctive, attractive communities can be accomplished through a variety of means, and the existing landscape and community context will be a significant driver for that process. However, it can generally be stated that the inclusion of focal points, such as town centers and community main streets plays a role in creating a sense of place. Distinctiveness and attractiveness is a function of how the setbacks are implemented, the amount and location of landscaping, providing variation in building façades while maintaining cohesion, the placement of garages on homes, and a multitude of other factors. To ensure that this principle is achieved, it is often important to include a comprehensive set of design guidelines for a community.

PRESERVE OPEN SPACE

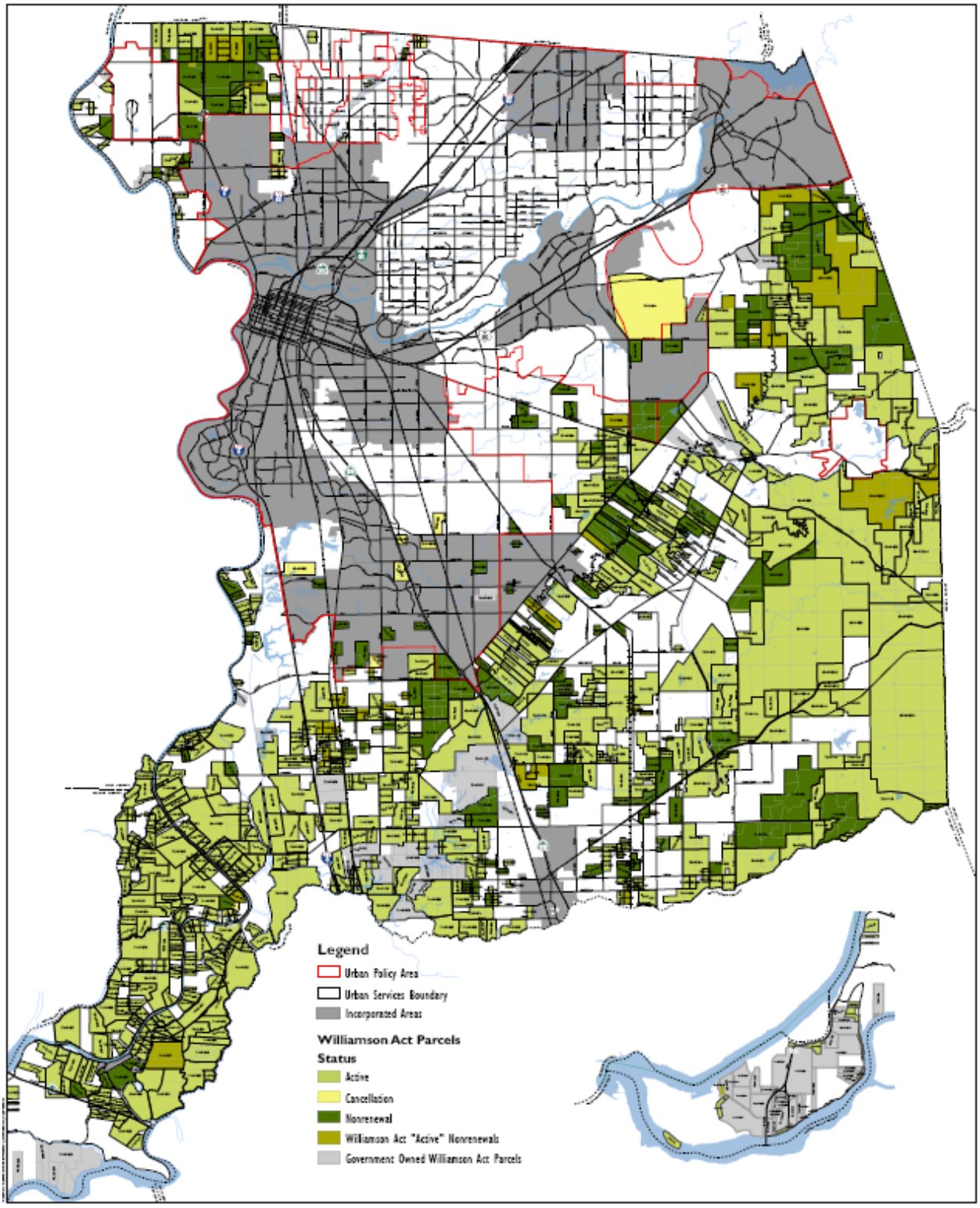
Preservation of open space, be it for the benefit of agriculture, ecological function, or cultural resources, is an often-overlooked component of smart growth. A project may meet all of the smart growth principles listed above, but still be developed within prime open space. Clearly, it is inevitable that development will involve the destruction of some open space resources if a project is located on undeveloped land (as opposed to a reuse project). The purpose of this principle is not to entirely prevent loss of open space, but to ensure that a project preserves the most sensitive and prime resources within the area. This is partly accomplished through principle five, which directs development toward existing communities where the open space environment is already compromised by existing urbanization. This is also accomplished by identifying the prime ecological, agricultural, and cultural resources during project design, and avoiding those areas. These resources can then become recreational and visual amenities, sequestration areas for carbon dioxide, and natural preserves.

Many of the principles described above address detailed design issues that go beyond the level of detail within a General Plan analysis. Therefore, the discussions below rely on an analysis of the proposed policies of the General Plan in most cases.

WILLIAMSON ACT

The Williamson Act, also known as the California Land Conservation Act of 1965, enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. When the County enters into a contract with the landowners under the Williamson Act, the landowner agrees to limit the use of the land to agriculture and compatible uses for a period of at least ten years and the County agrees to tax the land at a rate based on the agricultural production of the land rather than its real estate market value. The County has designated areas as agricultural preserves within which the county will enter into contracts for the preservation of the land in agriculture. The County has 245,682 acres under Williamson Act Contract as of 2008 (Plate LA-2).

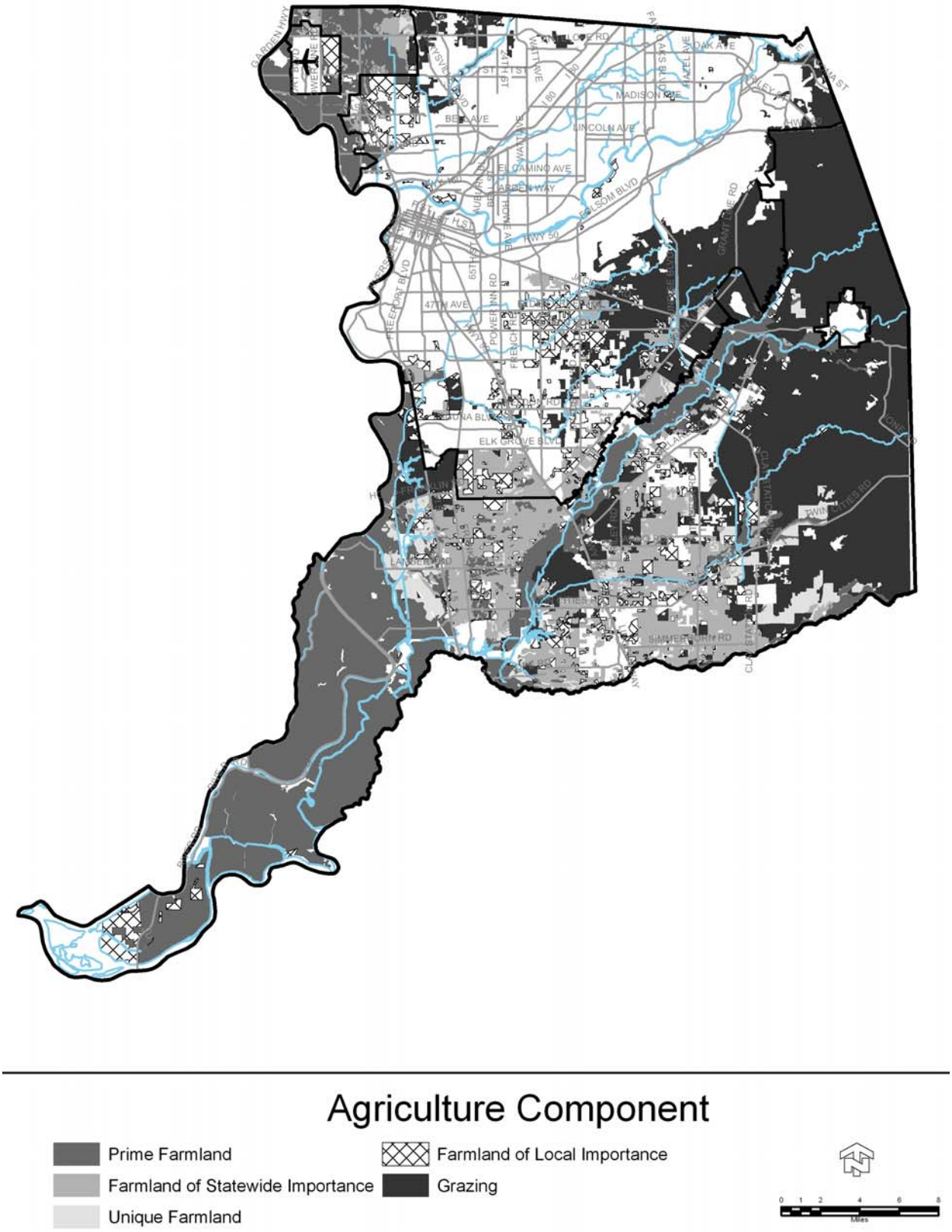
Plate LA-2 Map of Williamson Act Contracts as of 2008



STATE INVENTORY OF IMPORTANT FARMLAND

The Farmland Mapping and Monitoring Program was established in 1984 to document the location, quality, and quantity of agricultural lands and conversion of those lands over time. The program provides impartial analysis of agricultural land use changes throughout California. For inventory purposes, several categories were developed to describe the qualities of land in terms of its suitability for agricultural production. The State Department of Conservation utilizes the following classification system: the *Prime Farmland* category describes farmland with the best combination of physical and chemical features able to sustain long term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date. *Farmland of Statewide Importance* is farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date. *Unique Farmland* is farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated, but may include nonirrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date. *Farmland of Local Importance* is either currently producing crops or has the capability of production. This farmland category is determined by each county's board of supervisors and a local advisory committee. For Sacramento County, this classification refers to lands which do not qualify as Prime, Statewide, or Unique designation but are currently irrigated crops or pasture or nonirrigated crops; lands that would be Prime or Statewide designation and have been improved for irrigation but are now idle; and lands which currently support confined livestock, poultry operations, and aquaculture.

Plate LA-3 Sacramento County Map of Important Farmlands



EXISTING GENERAL PLAN

The general plan details policies for the distribution and intensity of land use in the County within the Land Use Element and on the Land Use Diagram. Within the element future development in the County unincorporated area is guided by the Urban Service Boundary and the Urban Policy Area. Their objective is to "Reserve the land supply to amounts that can be systematically provided with urban services and confine the ultimate urban area within limits established by natural resources". The planning horizon for the existing General Plan and these policies is 2010. The intent of these two policies is detailed below.

URBAN SERVICE BOUNDARY

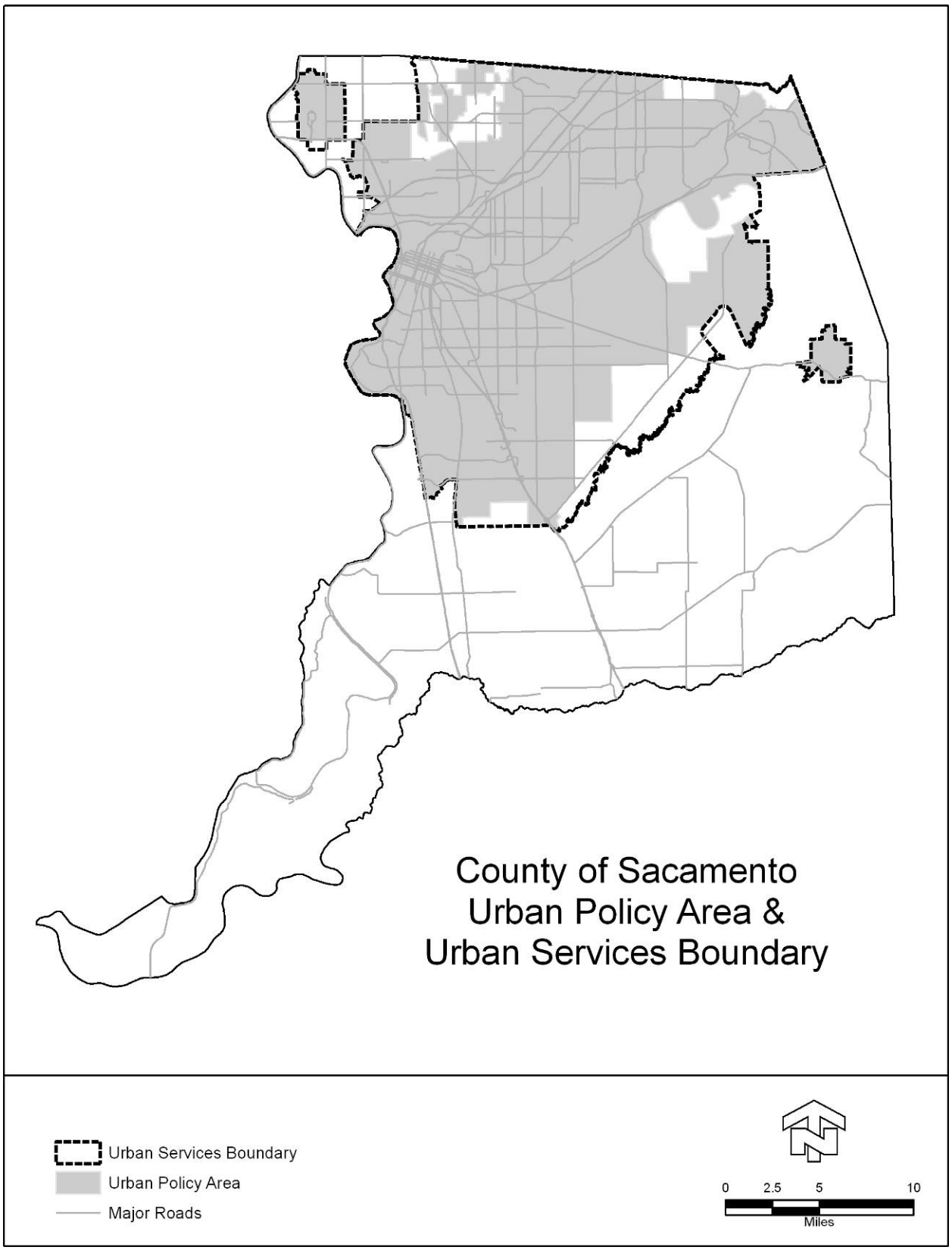
The Urban Service Boundary (USB) defines the ultimate urban area, based on natural and environmental limits to growth, in the unincorporated County (Plate LA-4). The boundary is intended to be permanent, allowing modification only under extraordinary circumstances. The USB is intended to be used to develop long-range master plans to be implemented as the urban area expands.

URBAN POLICY AREA

The Urban Policy Area (UPA) defines the area expected to receive urban levels of public infrastructure and services within the planning horizon by providing the geographic basis for the provision of urban services and infrastructure to the unincorporated County (Plate LA-4).

Community Plans, Specific Plans, Comprehensive Plans, and zoning provide more specific definition of allowable land uses than the General Plan for various geographic subareas, and must be consistent with the General Plan.

Plate LA-4 Existing USB and UPA (Revised in FEIR)



COMMUNITY PLANS

Sacramento County includes 25 mapped communities, some of which are incorporated cities that are not within County jurisdiction (refer to Plate LA-1). In some cases, the communities within the unincorporated County have adopted Community Plans. A Community Plan includes goals and policies specific to each individual community, and is accompanied by a Community Land Use Plan map. The Community Land Use Plan specifies the location, density, and intensity of residential, commercial, industrial and public facilities, as well as open space. Community Plans have been adopted for the unincorporated areas of Antelope, Arden Arcade, Carmichael, Delta, Fair Oaks, Laguna, North Highlands/Foothill Farms, Orangevale, Rio Linda/Elverta, Southeast, South Sacramento, and Vineyard. Community Plans have also been adopted for Citrus Heights, Cordova, and Elk Grove, but most of the area encompassed by these plans is now within the incorporated boundaries of the City of Citrus Heights, City of Rancho Cordova and the City of Elk Grove, respectively.

Portions of the South Sacramento and Vineyard Community Plans are currently proposed for amendment by the Florin-Vineyard Community Plan project. The Florin-Vineyard Community Plan proposes the urbanization of the area by establishing a preferred land use plan and a facilities finance element. Objectives of the plan include preservation of the rural character, clustering of commercial uses at major intersections, providing appropriate locations for multifamily uses, preserving wetlands, and considering public use/transportation options for the California Central Traction Railroad tracks right-of-way.

As discussed in the Project Description, the Project includes the identification of potential new growth areas (with an associated Urban Policy Area expansion) and commercial corridors for transitioning to mixed use. Of the New Growth Areas, the West of Watt area is partially within the Antelope Community Plan and the North Highlands Community Plan. The Jackson Highway Corridor is partially within the Vineyard Community Plan. The Easton area is within the Cordova Community Plan. However, the Grant Line East area does not lie within an existing Community Plan. The following Community Plans include one of the identified commercial corridors: North Highlands, Arden Arcade, Carmichael, Cordova, Fair Oaks, Orangevale, and South Sacramento.

SPECIFIC AND COMPREHENSIVE PLANS

SPECIFIC PLANS

There are four specific plans adopted within Sacramento County. The plans are East Antelope, Elverta, Mather Field, and North Vineyard Station.

The East Antelope Specific Plan (East Antelope SP) encompasses a geographic area in the Antelope community with Placer County line to the north, Don Julio Boulevard to the west, between Poker Lane and Antelope to the south, and Antelope North Road to the east. The purpose of the East Antelope SP is to provide orderly development within the

Plan Area in accordance with the Sacramento County General Plan. Land uses include Urban Residential (5.5 dwelling units per acre with a maximum density of RD-7), School, Park, Agricultural-Residential, Industrial, Limited Commercial, and General Commercial. The East Antelope SP is divided up into four subareas; the Northern, Western, Central, and Eastern. The subareas were drawn to correspond with the existing parcelization at the time the specific plan was developed, ownership interest, and physical characteristics. The Northern and Western Subareas show urban-residential uses, the Central Subarea shows agricultural-residential, the Eastern Subarea shows industrial land uses.

The Elverta Specific Plan (Elverta SP) encompasses a geographic area in the Rio Linda-Elverta community with the Placer County line to the north, El Verano Avenue to the west, U Street to the south, and 24th Street to the east. The Elverta SP provides a framework of policies that guide development within the specific plan area and reflects the objectives identified by the Citizens Advisory Committee (CAC) and other members of the community. The objectives include the adequate provision of infrastructure, social and walkable village environment, and linking rural context to community character. The purpose of the Elverta SP is to establish a coordinated and comprehensive approach towards land use development in the 1,744 acre planning area. Land uses include Agricultural Residential (AR), Residential Development (RD), Office/Professional, Commercial, Community/Neighborhood/Sports Park, Elementary School and Open Space.

The Mather Specific Plan (Mather SP) encompasses a geographic area in the community of Rancho Cordova with Folsom Boulevard to the north, Routier Road to the west, Kiefer Boulevard to the south, and Sunrise Boulevard to the east. The Mather SP provides a vision for a large area of Sacramento that has transitioned from military to civilian activities. The purpose of the Mather SP is to guide the evolution of the area in a way that will encourage coordinated development and reuse of the site in a manner that responds to local and regional objectives. Land uses include Public/Quasi-Public, Industrial-Intensive, Commercial & Offices, Low-Density Residential (1 to 12 dwelling units per acre), and Recreation.

The North Vineyard Station Specific Plan (NVSSP) encompasses a geographic area in the vineyard community with Jackson Road (State Route 16) to the north, Watt Avenue/Elk Grove Florin Road to the west, Calvine Road to the south, and Excelsior Road to the east. The purpose of the NVSSP is to provide for the ultimate development of a 1,595-acre area in an orderly and systematic manner through the establishment of a comprehensive planning program that is consistent with the Sacramento County General Plan and responsive to the opportunities and constraints in the local community area. Land uses include Business/Professional, Commercial, Single Family Residential, Medium Density Residential, Multi-Family Residential, Landscape Corridor, Drainage Parkway, Parkway, Storm Water Detention Basin, Open Space, Pubic Services, Schools, and Parks.

COMPREHENSIVE PLANS

The Vineyard Springs Comprehensive Plan (Comprehensive Plan) is the only adopted comprehensive plan within Sacramento County. This plan encompasses a geographic area in the Vineyard community with Gerber Road to the north, Bradshaw Road to the west, Calvine Road to the south, and Excelsior Road to the east. The Comprehensive Plan includes:

> Written and graphic descriptions that specify the distribution, location and extent of land uses;
>
> Policies, design guidelines and development standards which strive to blend the concepts of the General Plan with the dynamics of the local community area; and
>
> Written and graphic descriptions of the location, extent and cost of public facilities required to serve ultimate development of the Plan area.

Land uses range in density from Agricultural-Residential 1 (AR-1) to Residential Density 20 (RD-20). Other non-residential land uses include elementary schools, neighborhood parks, and community parks.

SACRAMENTO COUNTY ZONING CODE

The Sacramento County Zoning Code has been adopted by the Board of Supervisors and is used to encourage the most appropriate use of land; to conserve, protect and stabilize the value of property; to provide adequate open space for light and air; to prevent undue concentration of population; to lessen congestion on the streets; to facilitate adequate provisions for community utilities such as transportation, water, sewerage, schools, parks and other publicly owned facilities; and to promote the public health, safety and general welfare.

AIRPORT COMPREHENSIVE LAND USE PLANS AND AIRPORT POLICY AREAS

There are seven public use airports located within Sacramento County. One of these public use airports, the Sunset Skyranch facility, is still present but is not in operation and may ultimately be converted to a non-airport use. The Rancho Murieta Airport and Rio Linda Airport both include relatively short runways, and can only be used by smaller aircraft. As a result, the primary safety zones of these airports encumber very small areas that do not extend into any of the proposed Commercial Corridors or New Growth Areas. Franklin Field is of medium size, but the safety zones for this airport does not extend into any of the proposed Commercial Corridors or New Growth Areas. Therefore, no discussion is provided for Sunset Skyranch, Rio Linda Airport, Rancho Murieta Airport, or Franklin Field. Sacramento International Airport is very large, but nonetheless the safety zones of the airport do not encumber any of the proposed New Growth Areas or Commercial Corridors.

The remaining airports, Sacramento Executive, Mather Field, and McClellan Air Park, all have adopted Comprehensive Land Use Plans (CLUPs) and/or Airport Policy Areas. An

airport CLUP addresses airport expansion, noise/land use compatibility, and safety. Discussion for each of these airports is included in this chapter, along with maps of the safety zones in relation to proposed land use changes.

Sacramento Executive Airport

Executive Airport's planning and development are handled by the Sacramento County's Planning and Development department, and is operated by the Sacramento County Airport System. Executive Airport is approximately 540 acres, much of it already developed or in a clear zone. Executive is preparing a Master Plan Study that will lay the groundwork for the future of Executive Airport with community input. The safety zones for this airport are not shown, because they do not affect any of the growth areas of the proposed General Plan.

Mather Field

Mather Field is located in central Sacramento County, just south of the City of Rancho Cordova. Since its conversion from a military airfield to a public/commercial facility, non-military operations have steadily increased at this facility, as have issues relative to local development. The safety zones for this airport are shown on Plate LA-11.

McClellan Air Park

McClellan Air Park is located in north-central Sacramento County, just northeast of the City of Sacramento. Since its conversion from a military airfield to a public/commercial facility, operations have increased at this facility, although not as quickly as Mather Airport, and the operations are still well below the levels of activity experienced when it was a military air field. The airport safety zones for use in guiding future growth in the airport vicinity are presented in Plate LA-12. These are the safety zones of the current CLUP, and are larger than warranted by existing operations. The airport no longer serves the large military aircraft that needed long approach and departure areas, or large overflight areas. However, because the CLUP has not yet been amended, this analysis must rely on the adopted zones.

Proposed General Plan Land Use Element

The General Plan is fundamentally a land use document, so it follows that the Land Use Element and associated Land Use Diagram include some of the most substantial changes. As has been discussed in the Project Description and in the Introduction to this chapter, the General Plan includes four new strategies for growth. These strategies are reflected within proposed policies, implementation measures, figures, and in some cases on the Land Use Diagram.

Potential infill parcels are not identified on the Land Use Diagram, but are shown on Figure 4 of the Land Use Element. The Figure is not detailed – you cannot use it to determine if a particular parcel is included – but it does provide a good overview and indicates the areas of the highest concentrations of these parcels. The primary discussion of the infill strategy begins on page 27 of the proposed Land Use Element, and includes four policies and five implementation measures. The policies are:

Policy #	Policy Text
LU-5	The County shall give priority to residential development on vacant or underutilized sites within existing urban areas that have infrastructure capacity available.
LU-6	All residential projects involving ten or more units, excluding remainder lots and Lot A's, shall not have densities less than 75% of zoned maximums, unless physical or environmental constraints make achieving the minimum densities impossible.
LU-7	Provide for the development of vacant or underutilized portions of commercial projects and industrial-office parks with medium or high-density residential uses or mixed-use development where appropriate, such as near existing or future transit service.
LU-8	Provide for additional mixed use development in commercial parking areas where such uses would be compatible with surrounding uses and where parking demand can be appropriately accommodated or structured parking can be constructed.

The existing or pending master-planning areas where the proposed General Plan assumes buildout are the Elverta Specific Plan, the East Antelope Specific Plan, the North Vineyard Station Specific Plan, the Vineyard Springs Comprehensive Plan, and the Florin Vineyard “Gap” Community Plan (Figure 5 of the proposed Land Use Element). The primary discussion of the master-planned buildout strategy begins on page 31 of the proposed Land Use Element, and includes three policies. The policies are:

Policy #	Policy Text
LU-9	Maximize residential buildout of planned communities at a minimum of the approved plan densities.
LU-10	Consider private amendment applications that seek to increase densities within planned communities, including in pending and approved Specific Plan areas, when the project area is appropriately designed and sited.
LU-11	Recognize the inclusion of sites within planned communities to meet the County’s affordable housing ordinance.

The Commercial Corridors are depicted both on a separate Figure in the Land Use Element (Figure 6) and on the Land Use Diagram (denoted by a hatch-mark overlay).

The primary discussion of the Commercial Corridors begins on page 34 of the proposed Land Use Element, and includes one policy and two implementation measures. The policy is:

Policy #	Policy Text
LU-12	It is the intent of the County to comprehensively plan for the revitalization of the 14 targeted commercial corridors and invest the resources necessary to: stimulate private investment; encourage development of vacant and underutilized parcels; support reuse and/or rehabilitation of abandoned or blighted buildings; encourage rezoning of excess industrial and commercial lands to allow for medium and high density residential or mixed use projects, and; avoid non transit supportive uses, such as industrial uses, low density residential, and uses that would necessitate large parking lots fronting on the street.

Lastly, the New Growth Areas of West of Watt, Easton, Jackson Highway Corridor, and Grant Line East are all shown on Figure 7 and on the Land Use Diagram. The Land Use Diagram has a colored overlay for the Jackson Highway Corridor that is labeled as the Jackson Corridor Planning Area, and the remaining corridors all have a color overlay labeled as Urban Development Area. All of the New Growth Areas are discussed together, beginning on page 39 of the proposed Land Use Element. This section includes five policies and four implementation measures. The policies are:

Policy #	Policy Text
LU-13	The County will promote new urban developments within identified growth areas and prohibit land use projects which are for noncontiguous development, specifically proposals outside of the Urban Policy Area (i.e. leapfrog development).
LU-14	A Public Facilities/Infrastructure Master Plan shall be prepared to identify the major facilities required to serve new development in urban growth areas. A Public Facilities Financing Plan shall be prepared and approved by the Board of Supervisors prior to the approval of any zoning for any urban uses in urban growth areas. The Financing Plan shall include a Public Facilities/Infrastructure Master Plan describing required major infrastructure improvements necessary to support proposed developments, and present a detail plan for the phasing of capital improvements and identifies the extent, timing and estimated costs of all necessary infrastructure.
LU-15	Specific plans may be prepared for subareas of an urban growth area for the purpose of prioritizing development opportunities. The boundaries of new Specific Plan areas should be defensible and should take into account the physical nature and characteristic of the sub planning areas. The boundaries of these subareas should consider the following constraints and features: roadways, drainage watersheds, school districts, water districts, parks districts, etc.
LU-16	Planning and development of new growth areas shall be consistent with the South Sacramento Habitat Conservation Plan and other efforts to preserve and protect natural resources.
LU-17	The County will initiate and lead processes (including Community Plans, Specific Plans, Comprehensive Plans, etc.) to plan for development within the Jackson Highway Area, as illustrated in Figure 7. The resulting plans must be consistent with the vision plan resulting from the Jackson Visioning Study Area effort.

The text describing each of the New Growth Areas also specifically states that the County intends to avoid uncoordinated development by master-planning the West of Watt area and notes that the Easton area is already the subject of a proposed master-plan proposal. Specific and detailed language is included for the Jackson Highway Corridor, including:

> rather than allowing growth to occur throughout the new growth area, this General Plan requires that development radiate from four key nodes along the Jackson Highway: South Watt Avenue, Bradshaw Road, Excelsior Road and Sunrise Boulevard.

The General Plan also provides a narrative description of the expected mix of uses and community characteristics that would predominate in these nodes. In addition to the

designated New Growth Area, the General Plan also discusses a concept called the Visioning Area. The Visioning Area includes the Jackson Highway Corridor, but also extends farther eastward, all the way to the Urban Services Boundary. The Jackson Highway Corridor is intended to accommodate growth through 2030, while the greater Jackson Highway Visioning Area is intended to study growth beyond the proposed General Plan timeframe. Proposed policy LU-3 includes a description of the intent for the area, as well as a lengthy implementation measure. The total Visioning Area includes 22,000 acres.

The stated purpose of the Visioning is to ensure a longer-view and more integrated approach to planning in the area. This southeastern portion of the County contains a significant amount of biological resources, preservation areas, farmlands, and other important resources, and it was decided that in order to plan the nearer-term Jackson Highway Corridor appropriately, it would be necessary to know about the greater Jackson Highway reach all the way to the Urban Services Boundary. The Visioning is an information-gathering process. ~~According to the Planning Department, the final product will be one that the Board will endorse. Any future development within the area would thereafter need to be consistent with the principles and other guidance in the Visioning study.~~ The Jackson Highway Corridor Visioning ~~has been~~ **was** initiated ahead of the completion of the General Plan Update process, at the behest of the Board. **The final workshop on this study was held before the Board of Supervisors on March 31, 2009, at which time the Board received and filed the study.**

The text for Grant Line East simply states that the area is being explored as a New Growth Area. As mentioned, this area was added late in the process, so not as much text has been devoted to the area in the Draft General Plan. The Board since directed the Planning Department to begin a Visioning process for the Grant Line East area concurrently with the Visioning for the greater Jackson Highway Corridor area. However, in the case of the Grant Line East Visioning, the area being studied has the same boundaries as the New Growth Area. In addition, one application has been filed in the Grant Line East area, known as Cordova Hills. That project application was accepted by the Board of Supervisors and is proceeding concurrent with the General Plan.

In addition to the above development-related changes, there are several other aspects of the Project worth specific mention. The Land Use Diagram shows the noise and safety contours for the major airports in Sacramento County. The Draft Land Use Diagram of the Project includes two noise contours for Sacramento International Airport and Mather Field airport: the theoretical capacity contours and the Master Plan contours. These are two different methodologies for calculating potential noise, and the Board has directed that both methodologies be used in this analysis so that one or the other contour can be chosen for inclusion in the Final Land Use Diagram. The effects of these two noise contours are discussed in detail in the Noise chapter, while the safety contours are discussed in this chapter.

The Project includes a correction to the Land Use Diagram. When the 1993 General Plan was in the update process, the mapping abilities were not as refined as they are

now. As a result, there have been some areas identified over the years where the General Plan Land Use Diagram showed designations spilling over into areas where they should not. Part of this Project is a technical correction to one such area in Courtland. The current land use diagram shows an egg-shaped area of Low Density Residential backed by a narrow oblong of Medium Density Residential, and two smaller areas of Industrial and Commercial. These odd shapes clearly do not respect parcel boundaries, and as a result they overflow off of the intended properties and onto some of the surrounding agricultural lands zoned for AG-80 uses. The record shows that the 1993 decision-making process clearly did not intend this. The proposed Land Use Diagram makes the designations consistent with the parcel boundaries. As this is a technical correction, no further discussion of this issue is provided in the EIR.

SIGNIFICANCE CRITERIA

CEQA Guidelines defines "significant" 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. A social or economic change related to a physical change may be considered in determining whether the physical change is significant." (Section 15382)

Based on the CEQA Guidelines, a land use impact is significant if Project implementation results in any of the following:

1. If any portion of the project will significantly conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to a general plan, specific plan or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

2. Result in significant physical disruption or division of an established community.

3. Conflict with existing zoning for agricultural use, or a Williamson Act contract.

4. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

5. Convert a substantial amount of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use.

6. Result in an airport safety hazard for people residing or working in the Project area.

In addition to the CEQA Guidelines criteria for significance of farmland loss, the existing and proposed General Plan policies provide significance criteria for loss of farmland.

CO-55 (Existing)
Projects resulting in the conversion of more than fifty (50) acres of prime or statewide in importance farmland shall be deemed to have a significant environmental effect, as defined by CEQA.

CO-64 (proposed)
Projects resulting in the conversion of more than fifty (50) acres of prime, statewide importance, unique, and local importance farmland shall be deemed to have a significant environmental effect, as defined by CEQA.

The impacts of the Project will be compared to all three significance criteria: CEQA Guidelines, existing policy, and proposed policy. The General Plan policies establish 50 acres of loss as substantial, or significant, while the CEQA Guidelines leaves that un-quantified. For this EIR, 50 acres will be used as the threshold for all three criteria. The primary difference, then, is in the type of farmlands protected. From least to most protective, the existing General Plan protects Prime and Statewide Importance farmlands, the CEQA Guidelines protects those farmlands and adds Unique farmlands to the list, and the proposed General Plan protects all the farmlands of the previous two and adds Farmlands of Local Importance.

METHODOLOGY

An evaluation of the potential land use impacts associated with implementation of the Project was based on a review of planning documents, including the various components and policies of the 1993 Sacramento County General Plan, the proposed 2005 Sacramento County General Plan, other County regulations affecting planning and implementation of the proposed General Plan, other local jurisdictions' general plans if they are applicable to the Project, other applicable community plans and specific plans, field reviews of the County, and consultation with appropriate agencies.

IMPACTS AND ANALYSIS

The focus of the land use analysis in this section is on land use impacts that would result from the proposed Project, which consists of a proposed policy document, land use map, and other General Plan components. Project impacts are described and mitigation is included, as appropriate.

IMPACT: LAND USE PLAN COMPATIBILITY

EXISTING LAND USE PLANS – UNINCORPORATED COUNTY

In addition to the General Plan, land uses within the unincorporated County are governed by Specific Plans, Community Plans, Special Planning Areas, and

Neighborhood Preservation Areas. Below are tables listing the County planning documents that lie adjacent to (Table LA-1) or within (Table LA-2) any one of the 14 Commercial Corridors or 4 New Growth Areas (as of 2008).

Table LA-1
County Planning Areas Adjacent to Project Features

Planning Area	Project Land Use Proposal
Vineyard CP	Jackson Highway Corridor
Florin-Vineyard "Gap" CP	Jackson Highway Corridor
Mather SP	Jackson Highway Corridor
North Vineyard Station SP	Jackson Highway Corridor
Vineyard Springs Comprehensive Plan	Jackson Highway Corridor
McClellan Park SPA	Watt Ave North Commercial Corridor
Arden Oaks NPA	Watt Ave North Commercial Corridor
Citrus Heights SPA	Auburn Blvd North Commercial Corridor
Carmichael Creek NPA	Fair Oaks Blvd Central Commercial Corridor
Arden Park NPA	Watt Ave Central Commercial Corridor

CP – Community Plan, SP – Specific Plan, SPA – Special Planning Area, NPA – Neighborhood Preservation Area

Table LA-2
County Planning Areas Within Project Features

Planning Area	Project Land Use Proposal
Antelope CP	Watt Ave Planning Area and Watt Ave North Commercial Corridor
North Highlands – Foothill Farms CP	Watt Ave Planning Area, Watt Ave North Commercial Corridor, and Auburn Blvd North Commercial Corridor
Arden Arcade CP	Watt Ave Central, Auburn Blvd Central, Fulton Rd, and Fair Oaks Blvd West Commercial Corridors
Carmichael CP	Fair Oaks Blvd Central Commercial Corridor
Fair Oaks CP	Fair Oaks Blvd East and Greenback Ln Commercial Corridors

Table LA-2 County Planning Areas Within Project Features	
Planning Area	**Project Land Use Proposal**
Orangevale CP	Greenback Ln Commercial Corridor
Rancho Cordova CP	Folsom Blvd Commercial Corridor and the Jackson Corridor, Easton, and Grant Line Planning Areas
South Sacramento CP	Stockton Blvd Central, Franklin Blvd, Stockton Blvd South, and Florin Rd Area Commercial Corridors
Watt Avenue SPA	Watt Ave North Commercial Corridor
Winding Way – Hackberry Ln SPA	Fair Oaks Blvd Central Commercial Corridor
Carmichael Colony NPA	Fair Oaks Blvd Central Commercial Corridor
Marshal – Fair Oaks SPA	Fair Oaks Blvd Central Commercial Corridor
Greenback Ln SPA	Greenback Ln Commercial Corridor
Fair Oaks Village SPA	Fair Oaks Blvd East Commercial Corridor
Aerojet SPA	Folsom Blvd Commercial Corridor
Gold River SPA	Folsom Blvd Commercial Corridor
Arden Oaks NPA	Watt Ave Central Commercial Corridor
Sierra Oaks Vista NPA	Fair Oaks Blvd West Commercial Corridor
Arden Park NPA	Fair Oaks Blvd West Commercial Corridor
Folsom Blvd SPA	Folsom Blvd Commercial Corridor
Cordova Industrial Uses NPA	Folsom Blvd Commercial Corridor
SMUD Substation NPA	Stockton Blvd Central Commercial Corridor
52nd Ave NPA	Stockton Blvd Central Commercial Corridor
66th Ave NPA	Stockton Blvd South Commercial Corridor
Stockton Blvd NPA	Stockton Blvd South Commercial Corridor
South Citrus Rd NPA	Stockton Blvd South Commercial Corridor
Stockton Blvd-Gerber Road SPA	Stockton Blvd South Commercial Corridor

Table LA-2 County Planning Areas Within Project Features	
Planning Area	**Project Land Use Proposal**
Victory Ave SPA	Stockton Blvd South Commercial Corridor
Larchmont Countryside SPA	Stockton Blvd South Commercial Corridor
Calvine Ave/Hwy 99 SPA	Stockton Blvd South Commercial Corridor
Florin Rd/Florin Perkins Rd (Industrial)	Florin Rd Area Commercial Corridor
Florin Rd/Florin Perkins Rd	Florin Rd Area Commercial Corridor
South Sacramento Industrial	Florin Rd Area Commercial Corridor
CP – Community Plan, SP – Specific Plan, SPA – Special Planning Area, NPA – Neighborhood Preservation Area	

The details of all of these planning areas are available either on the internet (http://www.planning.saccounty.net/) or as a hard-copy from the Sacramento County Community Planning and Development Department. Future planning activities within the proposed Commercial Corridors will need to consider all of the adopted land use plans that apply to the corridor planning areas. The designated Commercial Corridors are already developed, predominantly with commercial uses, though with some residential as well. The Commercial Corridor designation is not intended to radically change the type of uses present, but to revitalize aging infrastructure, fully utilize the underutilized/vacant land, and restructure the distribution of commercial and residential components in a more balanced way. This aspect of the Project will not significantly 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, nor will it result in significant physical disruption or division of an established community. Land-use-related environmental impacts in areas where the proposed Commercial Corridors and Planning Areas interface with other County planning areas are *less than significant*.

Existing Land Use Plans – Incorporated County and Adjacent to County

The County of Sacramento contains many incorporated areas with independent General Plans and Community Plans, and is also adjacent to other counties and cities with independent land use plans – these are listed in the Environmental Setting section. Some of these planning documents have particular relevance to this discussion because proposed Project land use proposals either lie within or adjacent to these

areas. Below is a table listing the jurisdictions whose land use plans interface with Project land use proposals, and a description of the Project proposal involved.

Table LA-3
Incorporated Jurisdictions Adjacent to Project Features

Jurisdiction	Project Land Use Proposal
City of Citrus Heights	Auburn Blvd North, Fair Oaks Blvd East, and Greenback Ln Commercial Corridors
City of Elk Grove	Stockton Blvd South Commercial Corridor
City of Folsom	Greenback Ln Commercial Corridor and Easton New Growth Area
City of Rancho Cordova	Folsom Blvd Commercial Corridor, Easton New Growth Area, Grantline East, and Jackson Highway Corridor
City of Sacramento	Various Commercial Corridors and Jackson Highway Corridor

The Project includes a Commercial Corridor overlay on Auburn Boulevard, on Fair Oaks Boulevard, and on Greenback Lane, all of which abut the City of Citrus Heights. At the County-City interfaces, the City of Citrus Heights General Plan designates the property on the Auburn Boulevard and Fair Oaks Boulevard frontages as General Commercial, and the property behind the frontages as Medium Density Residential (8 – 20 units per acre). Greenback Lane has a large segment of General Commercial shown on the City of Citrus Heights General Plan that extends far beyond the frontage areas, though there is some Business Professional (offices, etc) and Medium Density residential shown nearby.

The Project includes a Commercial Corridor overlay on Stockton Boulevard from north of Florin Road to the City of Elk Grove. At the County-City interface of this corridor, the City of Elk Grove General Plan designates the frontage property as Low Density Residential (4.1 – 7.0 units per acre), Medium Density Residential (7.1 – 15 units per acre), and Public Schools.

The Project includes a Commercial Corridor overlay on Greenback Lane that abuts the City of Folsom. The City of Folsom General Plan designates the land that fronts Greenback Lane as Community Commercial (areas suitable for low-intensity retail commercial activities oriented to serving nearby residential areas), while the property behind Greenback Lane along Main Street is designated Single-Family (2 – 3.9 units per acre).

The Easton New Growth Area interfaces with the City of Folsom and the City of Rancho Cordova. Most of the northern boundary of the Easton area is along the boundary between the County and the City of Folsom, but they are separated by Highway 50. The City of Folsom designates a buffer strip of open space between the developed City

and the highway. Beyond the open space most of the land is designated for Industrial uses, with a few areas of Regional Commercial and Specialty Commercial District.

The City of Rancho Cordova General Plan covers not only the land within the City, but also a substantial amount of land that is within the unincorporated County. This further boundary outside the City limits is called the "General Plan Planning Boundary", which the Rancho Cordova General Plan recognizes is outside of City jurisdiction and defines as lands where the City intends to enter into "cooperative agreements on land use and circulation planning" (Rancho Cordova General Plan, page 5). There are multiple City Planning Areas outside the City that are within or adjacent to the County Easton area, Jackson Highway Corridor area, and Grant Line East area. The presence of two different land use plans over the same lands is an inconsistency. However, the City of Rancho Cordova does not have jurisdiction in these areas, so this EIR does not contain discussion about land use conflicts in this respect.

The Easton area shares a boundary with the City of Rancho Cordova at Hazel Avenue south of Highway 50, and is within the "General Plan Planning Boundary" of the City of Rancho Cordova General Plan. The City of Rancho Cordova General Plan designates the area in the City west of the County's Easton area as the Westborough Planning Area. GenCorp has filed development applications with both the City and the County, one to develop the City's Westborough Planning Area and one to develop the County's Easton area. These two sister projects have been designed by GenCorp to be complimentary to one another.

The Grant Line East area shares a boundary with the City of Rancho Cordova at Grantline Road. The Rancho Cordova General Plan designates all of these City areas along Grantline Road for a range of low to high density residential with a node of commercial at the intersection of Grant Line Road and Douglas Road.

The Jackson Highway Corridor area shares its eastern boundary with the City of Rancho Cordova. In the City, this interface area is designated for a mix of residential densities in most areas, and high density residential and commercial nodes at key intersections. There is also a large segment of open space designated in the block between Sunrise Boulevard, Rancho Cordova Parkway, Kiefer Boulevard, and Chrysanthy Boulevard. This open space area extends on a northeast-southwest diagonal that stops at the City limit at the corner of Kiefer Boulevard and Sunrise Boulevard – which is the far northeastern corner of the Jackson Highway Corridor area.

The Project includes a Commercial Corridor overlay on Folsom Boulevard on the eastern and western sides of the City of Rancho Cordova. On the western side, Folsom Boulevard is lined mostly with commercial uses, with low density residential to the north and south of the commercial areas. On the eastern side, the boulevard is low density residential to the north and industrial to the south.

The Project includes many Commercial Corridors that are adjacent to the boundaries of the City of Sacramento. These are: Franklin Boulevard, Stockton Boulevard South and

Central, Florin Road Area, Folsom Boulevard, Fair Oaks Boulevard West, Auburn Boulevard South, and Watt Avenue Central.

On the western side, a section of Union Pacific Railroad tracks lie between the City of Sacramento and the Franklin Boulevard commercial corridor. On the other side of the tracks, the City of Sacramento proposed General Plan designates the land as a mix of Traditional Neighborhood Low, Suburban Center and Employment Center (low rise). The existing City of Sacramento General Plan designates these areas as Low Density Residential (4 – 15 du/acre) and Heavy Commercial or Warehouse. The northern boundary of the commercial corridor interfaces directly with an area designated as Traditional Neighborhood Low, while the southern boundary interfaces with an area designated as Urban Center High. The existing City of Sacramento General Plan designates these areas as Low Density Residential, Community/Neighborhood Commercial and Offices, and Heavy Commercial or Warehouse.

At the County-City interface, the Stockton Boulevard South and Central commercial corridors are designated by the City of Sacramento proposed General Plan as Suburban Corridor, Employment Center (Mid-Rise), Suburban Center, Suburban Neighborhood High and Suburban Neighborhood Low. On the existing City of Sacramento General Plan most of this area is Community/Neighborhood Commercial and Offices, with some areas of Medium Density Residential and Public/Quasi-Public-Miscellaneous.

The northern side of the Florin Road Area commercial corridor is adjacent to the City of Sacramento. The city lands are designated as Heavy Commercial or Warehouse on the existing City of Sacramento General Plan, and as Employment Center (Low Rise) on the proposed City of Sacramento General Plan.

The Project includes a Commercial Corridor overlay on Folsom Boulevard that interfaces with the City of Sacramento. The existing City of Sacramento General Plan shows this area as being within the City Sphere of Influence, and designates these interface areas as Heavy Commercial or Warehouse, Community/Neighborhood Commercial and Offices, and Low Density Residential. The proposed City of Sacramento General Plan does <u>not</u> show this area as City Sphere of Influence, and designates the interface lands as Suburban Corridor, Urban Center High, and Suburban Neighborhood Low.

The Project includes a Commercial Corridor overlay on Fair Oaks Boulevard that interfaces with the City of Sacramento. The existing City of Sacramento General Plan designates these interface areas as Low Density Residential and Community/Neighborhood Commercial and Offices. The proposed City of Sacramento General Plan designates the interface lands as Employment Center (Mid-Rise) and Suburban Neighborhood Low.

Although both the Watt Avenue and the Edison Avenue commercial corridors are adjacent to the City of Sacramento, there are physical barriers that separate the areas. Watt Avenue is on the northern side of Interstate 80, and Edison Avenue is on the

southern side of Business 80. Therefore, these commercial corridors do not actually interface with City of Sacramento development areas.

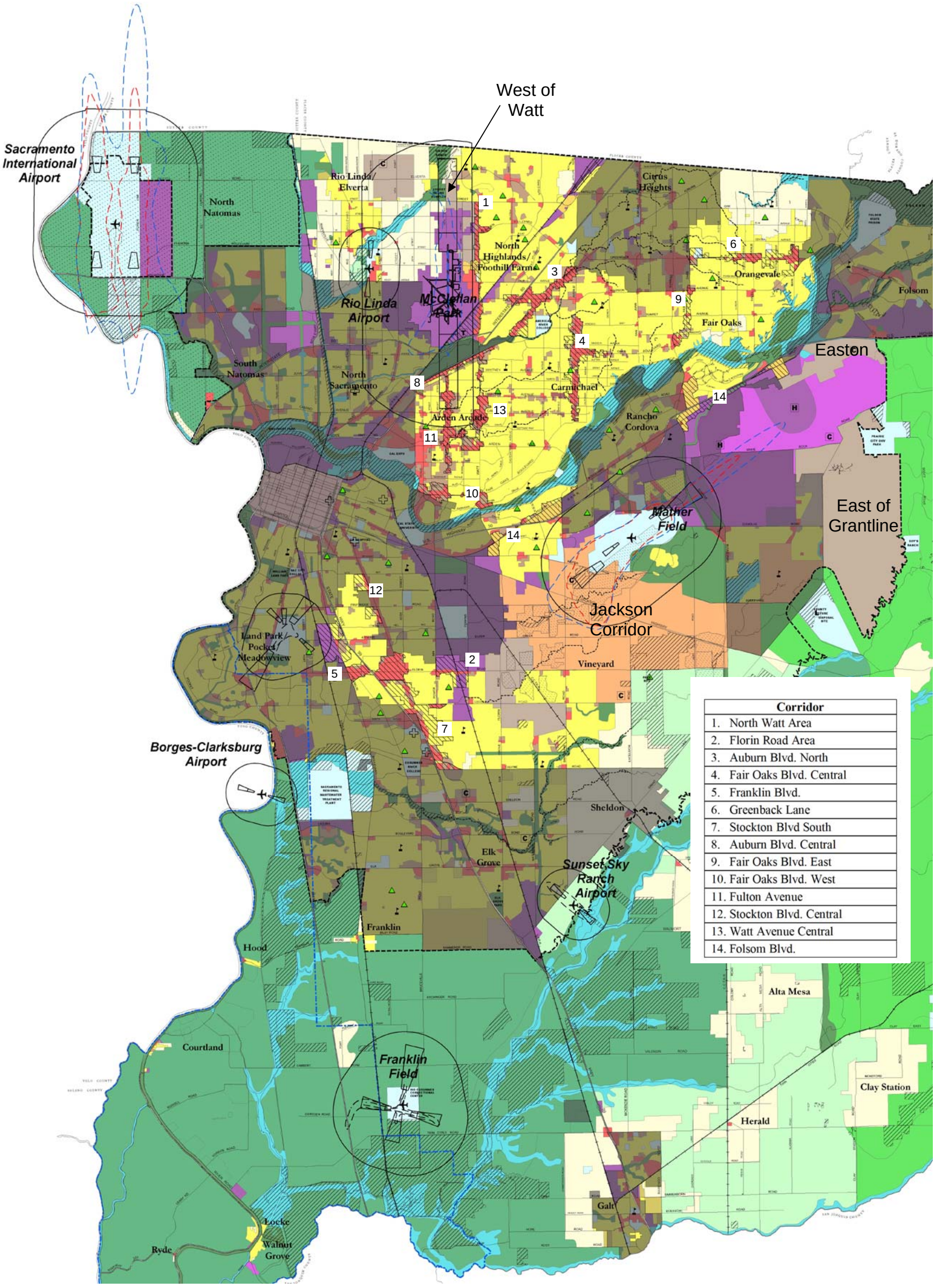
As discussed in the Project Description chapter, the Commercial Corridor overlays do not convey any detailed proposals. These overlays indicate areas identified for revitalization and reuse, with the intent of providing a balanced mix of commercial and residential uses. Similarly, the Jackson Corridor, Grantline East, West of Watt, and Easton areas do not include detailed land use proposals as part of the General Plan. Any detailed development proposal would be pursued as a separate project, and would be accompanied by a separate environmental document (which, as mentioned previously, is underway for Easton). The more specific analyses will be provided as part of the CEQA document accompanying the detailed land use proposals, if they are proposed.

The designated Commercial Corridors are already developed, predominantly with commercial uses, though with some residential as well. The Commercial Corridor designation is not intended to radically change the type of uses present, but to revitalize aging infrastructure, fully utilize the underutilized/vacant land, and restructure the distribution of commercial and residential components in a more balanced way. This aspect of the Project will not significantly 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, nor will it result in significant physical disruption or division of an established community. Land-use-related environmental impacts in areas where the proposed Commercial Corridors interface with incorporated land uses are *less than significant*.

MITIGATION MEASURES:

None required.

Plate LA-5
Commercial Corridors and Growth Areas Relative to Incorporated Areas



Corridor
1. North Watt Area
2. Florin Road Area
3. Auburn Blvd. North
4. Fair Oaks Blvd. Central
5. Franklin Blvd.
6. Greenback Lane
7. Stockton Blvd South
8. Auburn Blvd. Central
9. Fair Oaks Blvd. East
10. Fair Oaks Blvd. West
11. Fulton Avenue
12. Stockton Blvd. Central
13. Watt Avenue Central
14. Folsom Blvd.

SMART GROWTH PRINCIPLES

The discussions below examine the New Growth Areas and Commercial Corridors to determine which Project elements are compatible or incompatible with the seven smart growth principles outlined in the Methodology section of this chapter.

The General Plan states that the Jackson Highway Corridor area is intended to be consistent with smart growth objectives (proposed Land Use Element page 8), and also states that the area is intended to offer a balanced mix of uses while preserving habitat, design compact and pedestrian-oriented uses, and have public transit service. However, there are no specific land use designations proposed at this stage in the process, nor are there specific design elements required to achieve these stated intentions. Depending on future decision-making and planning, the Jackson Highway Corridor may be consistent with the smart growth principles related to community design.

The Jackson Highway Corridor does lie along a major transportation route (State Route 16), contains several other major arterial roadways, is contiguous on the western side with existing urbanized areas, and is contiguous on portions of the south side with land approved for urbanized development. However, the Jackson Highway Corridor overlays land predominantly composed of agricultural fields, grazing lands, wetlands and other waterways, and homes on agricultural-residential lots (lots of 1 – 5 acres). Locating this major growth area within an area dominated by open space and agriculture conflicts with smart growth principle 7.

This New Growth Area is outside the UPA, and, according to the proposed General Plan, not all of the area is expected to be developed within the 2030 time horizon of the Project. Assuming that all the other growth strategies are implemented except for the two major New Growth Areas, Jackson Highway Corridor and Grant Line East, the proposed General Plan can accommodate 86,000 units, which is below the 100,000-unit number set by the Blueprint. Adding the Jackson Highway Corridor, the proposed General Plan can accommodate as much as 127,000 units, which is 27,000 more units than is necessary.

In many ways, development within existing urban areas is more difficult than greenfield development. Existing communities tend to resist changes, and parcels may be of odd configurations and difficult to develop within existing zoning requirements. Greenfield projects usually don't involve either of those issues. Traffic impacts are a common and expensive result of commercial or high-density infill projects and of large greenfield projects, but because greenfield projects involve much larger volumes of product these costs are far easier to defray. This is true of other types of infrastructure impacts as well. Providing this superabundance of greenfield growth area is likely to draw development away from the more challenging infill and redevelopment projects and toward the greenfield projects. The Commercial Corridors aspect of the Project is anticipated to accommodate 19,000 units, but if there is room for an extra 27,000 units in a greenfield area it may prove difficult to attract redevelopment interest into the Commercial Corridors. Both because it includes substantial more area away from

existing communities than is needed, and because it may divert other development away from existing communities, the Jackson Highway Corridor also conflicts with smart growth principle 5.

There is another potential negative effect of designating a larger-than-needed growth area: leapfrog pressures. Ideally, development would proceed beginning within the areas closest to the urbanized areas and move outward, consistent with principle 5. The larger the area designated for growth becomes, the greater the potential that developments will be requested that are disconnected both from each other and from the existing urbanized area. This kind of scattered, or leapfrog, development makes it difficult to provide adequate transportation choices (principle 1) and walkable neighborhoods (principle 1). Although not directly stated as an objective in the smart growth principles, it also causes difficulties with master planning transportation, drainage, and other infrastructure components. Overall, the proposed Jackson Highway Corridor conflicts so significantly with principles 5 and 7 that it outweighs the potential consistency with the other principles. The Jackson Highway Corridor will significantly conflict with the smart growth principles outlined by the Blueprint.

There are CEQA Alternatives described below which would eliminate the conflict entirely, or reduce the degree of conflict. The other means of reducing or eliminating the conflict is to establish a phasing approach as part of the Jackson Highway Corridor visioning process or later master-planning process. The phases would be defined by a specific geographic area, with the earliest phases closest in to the existing urban areas, and the later phases farthest outward. For this to offset the impact, a policy would be required to prohibit residential or commercial development in any later phase until a prior phase was built to a minimum of 50% capacity. At 50% capacity, a phase will have collected substantial funds for infrastructure, and developers are more likely to complete the phase because they are already substantially committed. Each phase should also represent no more than 10 years of growth. The UPA itself is intended to represent 25 years, so phasing in 10-year increments balances both the need for a reasonable amount of development land and the need to phase in stages outward to the growth boundary. Mitigation below recommends the incorporation of a phasing mechanism as part of the Jackson Highway Corridor visioning; this mitigation reduces the identified significant land use impact to *less than significant* levels.

Reviewers should note that alternatives to the recommended Mitigation Measure LU-1 have been suggested by commenters. The California Attorney General has suggested such additions as: specifying a number of new housing units to be built within infill areas, inclusion of growth criteria that must be met prior to developing within subsequent phases (such as vacancy factors, adequacy of infrastructure, and community growth priorities), or meeting or exceeding emissions reductions targets. The Sacramento Metropolitan Air Quality Management District has recommended altering the mitigation measure to apply to any Specific Plan or master planning proposal in the County, not just to the two largest New Growth Areas, and has further recommended altering the minimum developed capacity from 50% to 75%. It was also suggested that the

County consider a phasing plan that requires meeting a vehicle miles traveled performance factor, and/or one that uses a GHG per capita metric.

The Grant Line East New Growth Area was added late in the process, so there are neither detailed descriptions of the anticipated use of this area nor policies specific to the area. It is not possible to know whether the internal development of this area would conflict or be consistent with smart growth principles 2 – 4 and 6. The placement of a growth area here does conflict with principle 1, because there are no mass transit services to this area presently or planned in the future.

The 8,147-acre Grant Line East area encompasses large tracts of open space dominated by grassland and wetlands, with only a handful of houses. This growth area conflicts even more substantially with principles 5 and 7 than does the Jackson Highway Corridor. There are no **existing** major transportation routes within the Grant Line East area, and the adjacent roadways are two-lane rural roads without developed shoulders. The western side of the growth area is adjacent to land within the City of Rancho Cordova that is designated for urbanized growth, but currently this land is undeveloped open space. **There is one area adjacent to Grant Line East that is likely to develop within the near-term. This is the area south of Douglas Road within the City of Rancho Cordova includes more specific land use designations, because this is part of the approved Sunridge Specific Plan area. The Sunridge Specific Plan includes infrastructure financing plans, approved subdivision maps, and other more detailed development approvals. So although this area, too, is currently undeveloped open space, the area is likely to develop within the near-term. There is also the potential for the Capital Southeast Connector to result in the widening of Grant Line Road to a major 6-lane expressway. If this occurred, it would be more likely to attract transit and further development to the area. Nonetheless, a**s stated, there is more land available within the Jackson Highway Corridor than can be developed within the time frame of this General Plan, and the Grant Line East area will add over 8,000 acres and 23,000 units to this excess. The Grant Line East area will significantly conflict with the smart growth principles outlined by the Blueprint. Between the Jackson Highway Corridor and Grant Line East, the proposed General Plan can accommodate an excess 50,000 units beyond the 100,000 units of the Blueprint. This large excess could divert infill development and Commercial Corridor development interest.

There are CEQA Alternatives described below which would eliminate the conflict entirely, or reduce the degree of conflict. In the case of Grant Line East, the Alternatives are the only means of reducing the significant impact. The phasing approach recommended for the Jackson Highway Corridor would not be sufficient to reduce impacts in the Grant Line East area. Firstly, there is no adjacent urban land to phase outward from. Secondly, any phasing would need to require that Jackson Highway Corridor build-out be completed prior to development in Grant Line East, in order to continue the logical progression of development from the most urbanized areas to the least. Given that it has already been stated that build-out of the Jackson Highway Corridor will not occur within the 2030 time horizon, this phasing would put off development to the distant future – despite the fact that an application for growth in this

area is already being processed by the County, and is included in the No Project scenario as reasonably foreseeable. Though a phasing requirement can be placed on Grant Line East, the requirement to begin nearest the urban areas is less effective, and a requirement to wait until the Jackson Highway Corridor is nearly complete is infeasible, so the smart-growth-related land use impacts of the Grant Line East area remain *significant and unavoidable*.

As stated in the Easton EIR, the Easton growth area is adjacent to developed areas of Rancho Cordova and Folsom; the project is a mixed use proposal that provides a range of land uses and housing types; the design of Easton Place is intended to promote pedestrian movement within the development; the portion of the project within 0.5 mile of the Hazel Avenue light rail station conforms to the County's density requirements; transit-oriented development (TOD) concepts are included in Easton Place; the proposed design guidelines include pedestrian walkways within parking lots, encourage surface lots to be located behind buildings and accessed from side streets, and encourage shared parking where appropriate; the project would have adequate transportation access; and automobile-oriented commercial areas would be located beyond 0.5 mile of the Easton Place TOD commercial core area. The Easton project is consistent with the smart growth principles; impacts are *less than significant*.

The proposed General Plan states that the West of Watt new growth area is composed of land that has become available as a result of the decommissioning of the McClellan Air Force Base (Land Use Element page 40). This section of the General Plan also indicates that West of Watt will be developed with residential, commercial, and employment-related uses. The West of Watt area is adjacent to the urbanized portions of the Antelope and Foothill Farms/North Highlands communities, and Watt Avenue is a major transportation corridor for the County where there is planned exclusive bus rapid transit (as part of the proposed General Plan Transportation Plan). Based on the location of the growth area and the language of the proposed General Plan, this area is likely to be developed consistent with the design principles 2 – 4 and 6; however, at this stage in the planning process, it cannot be known with certainty.

The West of Watt area is consistent with principles 1, 5, and 7. West of Watt is located along an urban corridor, rather than in open space or outside of the urbanized environment. The Watt Avenue corridor is serviced by Regional Transit bus services, and there is a light rail station at the Business 80/I-80 split to the south of the growth area. As the West of Watt area is consistent with the smart growth principles, impacts are *less than significant*.

All of the proposed Commercial Corridors are redevelopment, not new development areas. The Commercial Corridors are located along arterial roadways that have aging commercial and multiple-family residential buildings that can be renovated to allow a mix of uses (first floor commercial with upper floor residential, for instance), and that have vacant or abandoned properties. These corridors are all well within the existing urbanized environment, with access to transit options. Proposed General Plan Policy LU-12 specifically states that "non-transit supportive" uses will be avoided, as will uses that involve large parking lots fronting on the street. Avoiding large on-street parking

lots is pedestrian-friendly, as it allows people on the sidewalk to enter buildings without having to cross large parking lots to get there. The proposed Commercial Corridors are consistent with principles 1, 5, and 7 and are likely to be consistent with principles 2 – 4 and 6, as well. As the Commercial Corridors are consistent with the smart growth principles, impacts are *less than significant*.

MITIGATION MEASURES:

LU-1. ~~A phasing plan shall be included in any Specific Plan or other type of master planning proposal for the Jackson Highway Corridor and Grant Line East New Growth Areas.~~ **Growth within the Jackson Highway Corridor and Grant Line East New Growth Areas shall be phased through master planning processes.** The phases shall be defined by a specific geographic area, with the earliest phases closest in to the existing urban areas, and the later phases farthest outward. Each phase shall represent a geographic area that will accommodate no more than 10 years of growth, based on the latest SACOG projections. Development within the phases shall occur sequentially, and residential or commercial development in each subsequent phase shall be prohibited until the prior phase is developed to at least 50% of holding capacity.

IMPACT: LAND USE POLICY COMPATIBILITY

This section does not include the text of all of the existing or proposed policies of the General Plan. The existing policies are available within the Land Use Element of the existing General Plan and the proposed policies are available within the proposed Draft Land Use Element of the General Plan Update. Appendix A of this EIR also contains both the existing and proposed General Plan policies, as well as notations indicating which of the proposed General Plan policies are the same as an existing policy, are an amendment to an existing policy, or are entirely new.

SMART GROWTH PRINCIPLES

Appendix A includes a list, by number, of all of the proposed new or modified land use policies and indicates whether the policy is consistent or inconsistent with the smart growth principles. If a policy is neutral, it is not included in the table, and if a policy is either consistent or inconsistent the table indicates the principle(s) with which it is consistent or inconsistent. Out of all of the proposed Land Use Element policies, only three new policies conflict with the smart growth principles: LU-17, LU-120, and LU-121. However, there are two existing policies being carried over into the proposed General Plan that also conflict and are discussed below. The text of the three new policies is provided below, followed by impact discussion, and then the text of the two existing policies being carried over are provided, followed by impact discussion.

Policy #	Policy Text
LU-17	The County will initiate and lead processes (including Community Plans, Specific Plans, Comprehensive Plans, etc.) to plan for development within the Jackson Highway Area, as illustrated in Figure 7. The resulting plans must be consistent with the vision plan resulting from the Jackson Visioning Study Area effort.
LU-120	Except as permitted by LU-60, the County shall not accept applications to amend the General Plan Land Use Diagram from a designation in Column A to a designation in Column B for property located outside of the Urban Policy Area but within the Urban Service Boundary unless: • The property adjoins property designated for urban land uses and its shape and extent comprise a logical extension of infrastructure and services; and • There is clear evidence that infrastructure capacity and service availability exist or can be easily extended to the property; and • The amendment is consistent with draft or adopted Habitat Conservation Plans; and • The Board finds that the unincorporated area land supply within the Urban Policy Area contains an insufficient land supply to accommodate a 15 year supply of growth; or • The Board determines that the property represents a minor and logical extension of the Urban Policy Area for the purpose of preparation of a Specific Plan or other development request.

Policy #	Policy Text
LU-121	The Urban Policy Area is intended to provide a 25-year supply of developable land sufficient to accommodate projected growth. The UPA shall also include additional lands to ensure an appropriate supply. It is the policy and intent of the County to expand the UPA at a minimum of five year intervals to maintain a constant adequate supply of land. Guidelines to be considered by the Board in determining the expansion of the Urban Policy Area include: • Buildout rates by type of use, unit type and density for the previous 5-year period. • Infill trends and opportunities. • Population and job growth projections as reflected by a minimum of three independent sources. • Evidence that the infrastructure capacity and service availability exist or can be extended to the property. • Evidence that the proposed expansion is consistent and complies with draft or adopted Habitat Conservation Plan goals and objectives.

Proposed policy LU-17 directs the creation of new development plans in the Jackson Highway Corridor New Growth Area. This area is mostly open space or minimally-developed area, and is also capable of accommodating substantially more new housing (~13,000 more units) than is anticipated for the Sacramento County region in the 2030 time horizon. Smart growth principle 7 states that open space should be preserved and principle 5 directs development within existing communities. Including policy direction to develop in open space areas when the area designated is larger than needed to accommodate anticipated growth conflicts with principles 5 and 7. Mitigation Measure LU-1 will require logical phasing from the existing urban environment, and in so doing will ensure that open space is not developed until there is demonstrated need.

Policies LU-120 and LU-121 allow for private applications to expand the UPA and County-initiated expansion of the UPA, respectively.

Proposed policy LU-120 (a modified version of existing policy LU-75) allows the redesignation of agricultural and recreational lands outside the Urban Policy Area but inside the Urban Services Boundary, provided the request meets certain specified criteria. The area outside the UPA is dominated by open space lands, with abundant natural resources and areas of floodplain. Without demonstrating that there is no remaining area within the existing Urban Policy Area that can be developed, expansion of the UPA into these open space areas has the potential to conflict with smart growth policies 5 and 7. The first three criteria of the policy are required, while for the final two only one needs to be true. On its face, the first required criterion does not appear to conflict with smart growth principles, because it requires that the property be adjacent to existing land designated for urban uses and that its shape and extent comprise a logical

extension of services. However, the key word is that the adjacent land need only be *designated* for urban uses – the criteria does not require that the adjacent land actually be *developed* with urban uses. This can lead to the acceptance of an application for an expansion of the Urban Policy Area in a location that is isolated from the existing urban environment (leap-frog development) which conflicts with smart growth principles 5 and 7.

The second and third required criteria of LU-120 are consistent, or at least neutral. The second criterion specifies that there must be clear evidence that either infrastructure capacity and service availability exists, or can easily be extended to the property. Interpreting smart growth principle 5 loosely, this criterion is consistent with the smart growth principle 5. Strictly interpreting the principle to refer only to buildings, this criterion is then neutral with respect to smart growth principles. The third criterion requires that any UPA expansion be consistent with draft or adopted Habitat Conservation Plans, which supports the statement of smart growth policy 7 that open space area should be preserved.

The fourth and fifth criteria specify that either the Board must find that the existing land within the Urban Policy Area is not sufficient to provide a 15-year supply of growth or that the requested expansion represents a “minor and logical” extension. The phrase “minor and logical” is not defined. Reasonable minds may differ on what constitutes a logical or minor expansion, and should those disagreements occur there is no objective factor to consider that would resolve the difference. This criterion could lead to the acceptance of an application for an expansion of the Urban Policy Area in a location that is isolated from the existing urban environment in the open space areas of the County, which conflicts with smart growth principles 5 and 7. The other option, that a 15-year supply of land is not available, is specific and measurable. However, General Plan policy LU-121 states that the Urban Policy Area is only intended to accommodate 25 years of growth to begin with, making it clear that the 15-year criterion is not very restrictive. Long before the proposed Urban Policy Area has reached build-out, an applicant could successfully argue that the area needs expansion because it no longer contains a 15-year supply of land. This criterion conflicts with smart growth policies 5 and 7, because it may result in expansion into open space areas long before the land closer to the urbanized environment has been utilized.

Policy LU-121 (a modified version of existing policy LU-76) is referenced in the discussion related to LU-75 because it also discusses expansion of the Urban Policy Area. The difference between policy LU-120 and policy LU-121 is that the former outlines the process for accepting private applications for an expansion, while the latter outlines the process for County-initiated expansions. LU-121 specifies that the Urban Policy area is intended to provide a 25-year supply of developable land, that the Urban Policy Area should also include “additional lands to ensure an appropriate supply”, and that the County intends to expand the Urban Policy Area a minimum of every 5 years. The policy also outlines the market and infrastructure factors that should be considered when determining how to expand the area. The factors listed are either consistent with or neutral with respect to the smart growth principles. The provision that the Urban Policy Area is intended to accommodate a 25-year supply of developable land is also

consistent, because it is consistent with the normal timeframes associated with General Plans (according to the Governor's Office of Planning and Research).

Though the 25-year timeframe of the policy is consistent, some other elements of the policy are *not* consistent with smart growth principles. The policy states that the Urban Policy Area should include "additional lands to ensure an adequate supply", which is a broad statement that is not clarified by other elements of the policy. As written, this statement can be understood to modify the previous intention to limit the area to a 25-year supply, so that far more than 25 years of land could be accommodated. Furthermore, even though it is possible that due to growth pattern changes the Urban Policy Area would not require expansion within a 5-year period, the policy also states that the County intends to expand the Urban Policy Area at least every 5 years. It would be more appropriate for the policy to state that the Urban Policy Area will be updated every 5 years, rather than expanded every 5 years. The critical purpose of the Urban Policy area is to establish a cogent boundary for infrastructure master planning and development. If this boundary is expanded more frequently than necessary or includes too much land, it makes the logical planning and prioritization of growth and infrastructure difficult to achieve. This policy conflicts with smart growth principles 5 and 7.

Proposed policies LU-87 and LU-123 are provided below. These policies are identical to two existing policies, LU-67B and LU-78.

Policy #	Policy Text
LU-87	The County supports Agricultural-Residential expansion outside the USB when it is determined by the Board of Supervisors to be necessary to meet demand levels. The County shall establish a program that determines the methodology for Ag-Res expansion and criteria for small-scale expansion.
LU-123	The County may modify the Urban Policy Area independent of changes in General Plan land use designations provided that the area encompassed by the changes meets the requirements of Policy LU-120, or the County has adopted a Community Plan which provides for extending urban services to existing agricultural-residential areas.

Proposed policy LU-87 (LU-67B in the existing General Plan) allows agricultural-residential expansion outside of the Urban Services Boundary. Location limits for such expansion are included in proposed policy LU-88, but the limits do not address the key issue, which is how one determines whether expansion is "necessary to meet demand levels". It is unclear if "demand" refers specifically to demand for agricultural-residential parcels, or demand for residential development as a whole. While none of the existing policies describe the factors that must be present in order to conclude that the expansion is "necessary", the agricultural-residential expansion program that the policy requires be established has in fact already been completed and adopted by the County. This policy can be modified to state that the program should be maintained, rather than "established".

Proposed Policy LU-123 dovetails onto proposed Policy LU-120. The first half of the proposed policy is neutral with respect to the smart growth principles, because the potential impact occurs at the time the UPA is amended – whether the General Plan land use designations are also amended is immaterial. The second half of the proposed policy includes the phrase "which provides for extending urban services". It is unclear what a Community Plan must include in order to "provide for" such an extension, and it could be assumed that it is permissible if a Community Plan simply states that extension of services are permissible – even if there was no supply or infrastructure analysis completed. To avoid this circumstance, the policy language should specify that an extension of services is only allowed where a Community Plan included plans to extend infrastructure.

The remaining 97 proposed new or modified Land Use Policies and Implementation Measures are either neutral or support the smart growth principles. The identified policy conflicts with smart growth principles identified are of great import, because the policies deal with expansion of the Urban Policy Area and amendment of land uses outside the Urban Policy Area. The physical effects of the policy conflicts could result in substantial impacts related to loss of open space and development outside of the urban environment; impacts are *significant*.

Agricultural Land Use Policies

This section deals specifically with the potential physical effects of the proposed changes to General Plan policies, and the potential effects of the Project Alternative that would amend Policy AG-5 to allow out-of-county mitigation. The General Plan policies related to agricultural uses are also discussed within the "Conversion Of or Conflict With Farmland" impact section, because some of the policies help define the significance of physical impacts.

Most of the changes to the policies will not result in physical effects. Many changes are minor wording edits, clarifications, updates to reflect current regulatory environments, and changes in the emphasis of the policy. An example of the latter type of change is policy AG-10, which deals with the interaction between farmland owners and conservation land owners. In the existing policy, it stipulates that conservation lands should be managed in a way that does not disturb farming, but in the proposed policy, it stipulates that lands should be managed so that conservation and farming mutually benefit. The changing policies that may have direct physical effects are found in Table LA-4 along with a description of the change and a description of the potential impact.

Table LA-4 New and Modified Agricultural Element Policies with Potential Physical Effects

Proposed Policy #[1]	1993 Policy #[1]	Status	Description of Change	Description of Potential Impact
AG-1		Modified	Adds Statewide Importance, Unique, and Local Importance to list of protected farmlands	Beneficial: Increases the range of farmland types that are protected to encompass the same categories listed by the CEQA Guidelines. This may result in less conversion of farmland, or more farmland mitigation. This effect also applies to the other policies below that share this particular change in language.
AG-2		Modified	(+) Changes from not accepting a General Plan Amendment (GPB) unless the land is contiguous with existing Agricultural-Residential land and there are no feasible alternative locations **to** not accepting a GPB outside the Urban Services Boundary unless it is consistent with Agricultural-Residential expansion policies	Beneficial: There are a total of 9 new expansion policies in the proposed Land Use Element. These policies provide greater clarity and specifically outline the factors that must be considered before allowing the redesignation of agricultural land to agricultural-residential land, including avoidance of Prime Farmland and protecting Farmland of Statewide Importance.
AG-5A		Modified	(+)	Beneficial: See AG-1
AG-5B		Modified	Similar to AG-2 change	Beneficial: See AG-2
AG-5E		Modified	Changes from allowing established agricultural buffers to lapse after agricultural activities cease, **to** stating that buffers cannot be removed even after agriculture ceases	Beneficial: Whether or not land is being actively farmed, agricultural lands are defined by their soil types, not just active use. In the existing policy, unused agricultural lands that lose their buffer may be encroached on by a use incompatible with farming, making it unlikely that farming on the land will ever resume. The new policy protects farmlands from that loss by preserving the buffer.
AG-5F		New	Renew and update the County's right-to-farm ordinance every 5 years	Beneficial: This policy will ensure that the right-to-farm ordinance remains updated, which in turn helps to prevent negative effects on farmlands related to land use incompatibility.
AG-5G		Modified	Adds language to make the right-to-farm ordinance a Condition of Approval for all parcel and subdivision maps adjacent to agricultural lands	Beneficial: Ensures that the language of the right-to-farm ordinance is a recorded part of the new development, again reducing the incidence of negative farmland impacts related to land use incompatibility.
AG-5J		New	Notify adjacent owners of right-to-farm ordinance	Beneficial: Ensures that property owners are regularly

Proposed Policy #[1]	1993 Policy #[1]	Status	Description of Change	Description of Potential Impact
			within annual property tax bills	reminded of the provisions of the right-to-farm ordinance, and that new property owners are made aware of the ordinance, again reducing the incidence of negative farmland impacts related to land use incompatibility.
AG-9		Modified	(+)	Beneficial: See AG-1
AG-10		Modified	(+) Changes the emphasis from preventing preservation activities from disturbing farming **to** ensuring that farming and preservation activities mutually benefit	Beneficial: See AG-1 and Neutral: Although preservation is given equal footing with farmland in this proposed policy change, the policy still protects farmland.
AG-13		Modified	(+)	Beneficial: See AG-1
AG-15A		Modified	(+)	Beneficial: See AG-1
AG-19		Modified	(+)	Beneficial: See AG-1
AG-21A		Modified	(+)	Beneficial: See AG-1
AG-21B		New	Develop a signage program along trails to promote education and stewardship of prime, statewide importance, unique and local importance farmlands	Beneficial: This measure is intended to raise public awareness of the importance of farmlands to the community, which may reduce the incidence of complaints related to perceived land use incompatibility.
AG-22		Modified	(+)	Beneficial: See AG-1
AG-24		New	Support the Super Williamson Act	Beneficial: The Super Williamson Act provides for additional tax benefits in exchange for a longer-term agreement to keep the land in farming (20 years, versus the Williamson Act 10 years)
AG-24A		New	Establish a Super Williamson Act program in Sacramento County	Beneficial: See AG-24

(+) This symbol indicates that in addition to the other changes described, the policy is also amended to reflect the same change found in policy AG-1.

Aside from the above policies, the Board of Supervisors also requested a more specific analysis of proposed policy AG-5, which deals with mitigation for agricultural lands. This is listed as a Project Alternative in the Project Description chapter. The proposed policy specifies that mitigation must take place within Sacramento County, while the existing policy does not. Board members expressed an interest in understanding the negative and positive aspects of allowing out-of-County mitigation, so that they could be informed when choosing either to retain the existing policy, approve the proposed policy, or make some modification to the policy that would allow out-of-County mitigation only in certain circumstances.

The existing and proposed policy language was forwarded to the Sacramento County Agricultural Commissioner, Mr. Frank Carl, for consideration. Mr. Carl indicated in an e-mail (June 17, 2008) that the costs of allowing out-of-County mitigation outweigh the benefits. Allowing mitigation outside of the County allows a more regional approach to farmland protection, and could avoid the creation of large, contiguous areas of protected farmland. However, County residents would not benefit from out-of-County open space and the cultural value of having farming in a community. It could lead to a situation where development gets denser within the County, while much of the farmland mitigation takes place outside the County. County farmers wouldn't get the benefit of being able to sell their development rights to help support their operations. Ultimately, Mr. Carl and his staff determined that the most beneficial approach would be to keep mitigation within Sacramento County. Both approaches would satisfy the regional need to maintain farmlands, but the County itself could suffer a net-loss of farmlands if mitigation is allowed outside of the County. The proposed policy change would have a beneficial impact.

MITIGATION MEASURES:

LU-2. Modify Policy LU-120 as follows (delete ~~strikethrough~~, add **bold, underlined**): Except as permitted by LU-60, the County shall not accept **private** applications to amend the General Plan Land Use Diagram from a designation in Column A to a designation in Column B for property located outside of the Urban Policy Area but within the Urban Service Boundary unless **the expansion is deemed to be minor and logical, as follows**:

- The property adjoins property ~~designated for~~ **substantially developed with** urban land uses and its shape and extent comprise a logical extension of infrastructure and services; and
- There is clear evidence that infrastructure capacity and service availability exist or can be easily extended to the property; and
- The amendment is consistent with draft or adopted Habitat Conservation Plans; and
- The Board finds that the unincorporated area land supply within the Urban Policy Area contains an insufficient land supply to accommodate a ~~15~~ **10** year supply of growth.

- ~~The Board determines that the property represents a minor and logical extension of the Urban Policy Area for the purpose of preparation of a Specific Plan or other development request.~~

LU-3. Modify Policy LU-121 as follows (delete ~~strikethrough~~, add **bold, underlined**): The Urban Policy Area is intended to provide a 25-year supply of developable land sufficient to accommodate projected growth. The UPA shall also include additional **preserve** lands to ensure an appropriate supply **of open space**. It is the policy and intent of the County to ~~expand~~ **evaluate** the UPA at a minimum of five year intervals**, to determine if an expansion is needed** to maintain a constant adequate supply of land.

Guidelines to be considered by the Board in determining the expansion of the Urban Policy Area include:

- Buildout rates by type of use, unit type and density for the previous 5-year period.
- Infill trends and opportunities.
- Population and job growth projections as reflected by a minimum of three independent sources.
- Evidence that the infrastructure capacity and service availability exist or can be extended to the property.
- Evidence that the proposed expansion is consistent and complies with draft or adopted Habitat Conservation Plan goals and objectives**, or where such a draft or adopted Plan does not exist, evidence that important natural resources lands, agricultural lands, and open space lands will be protected and integrated into a cohesive and interconnected network of open space within the UPA.**

LU-4. Modify Policy LU-87 as follows (delete ~~strikethrough~~, add **bold, underlined**): The County supports Agricultural-Residential expansion outside the USB when it is determined by the Board of Supervisors to be necessary to meet demand levels **for agricultural-residential lands**. The County shall ~~establish a~~ **maintain the** program that determines the methodology for Ag-Res expansion and criteria for small-scale expansion.

LU-5. Modify Policy LU-123 as follows (delete ~~strikethrough~~, add **bold, underlined**): The County may modify the Urban Policy Area independent of changes in General Plan land use designations provided that the area encompassed by the changes meets the requirements of Policy LU-120, or the County has adopted a Community Plan which **includes plans to** ~~provides for~~ extend~~ing~~ urban services to existing agricultural-residential areas.

IMPACT: ENVIRONMENTAL HEALTH

The Centers for Disease Control and Prevention (CDC) recognizes the connection between land use and public health, and maintains a website called Healthy Places (http://www.cdc.gov/healthyplaces/). According to information from this site, results of the 1999-2000 National Health and Nutrition Examination Survey (NHANES) indicate that an estimated 64% of U.S. adults aged 20 years and older are classified as overweight or obese. Among U.S. adults, obesity has doubled since 1980, increasing from 15% in 1980 to 31% in 2000, and the percentage of children and adolescents who are defined as overweight has more than doubled since the early 1970s. Asthma increased in prevalence during 1980--1996 in the United States [Moorman et. al., 2007], and as of 2004 it affected approximately 7.7% of adults [CDC, 2004]. The prevalence of obesity is related to dietary habits and amount of physical activity, and asthma is strongly influenced by air quality. Land use and development patterns have the potential to affect these and other public health issues.

Land use patterns in the built environment in Sacramento County tend to favor the car: retail stores are set back behind large parking lots rather than up by the sidewalk, there are no exclusive bus lanes, there are few bicycle lanes on the streets, most sidewalks are not separated from the roadway, most of the more attractive shopping centers are regional rather than local, and there are few examples of “true” mixed-use development (where two separate uses occupy the same space, as in a first story commercial building with second story residential). Research has shown that these car-centric land use patterns have resulted in an increase in air pollution and a decrease in the amount of time people spend walking or biking to their destinations.

Street network characteristics, street design, separated bike/walk facilities, density, land use mix, and site design all have an effect on the replacement of vehicle trips with pedestrian or bicycle trips. People are more likely to walk or bicycle to a destination if the path there is more direct (street network characteristics) and too distant (density and land use mix); if there are adequate and attractive facilities, such as bicycle lanes and wide sidewalks, to use in getting there (street design); and if the paths are safe (separated bike/walk facilities). Many of the smart growth principles outlined in prior discussions address these same issues. The principles outline basic precepts that support pedestrian-friendly design and alternative transportation, both of which reduce the length and amount of vehicle trips and increase daily physical activity.

Many of the development features described above require site plans and subdivision maps in order to determine consistency. At the General Plan level, these are not available. Therefore, it can’t be determined whether development within the Jackson Highway Corridor or the Grant Line East areas will promote higher physical activity levels. However, as discussed in the section on smart growth principles, it can be stated that because of the size and locations of the growth areas there are likely to be long vehicle trips involved for work commutes. This circumstance will be a detriment to air quality, and a commensurate detriment to respiratory function.

As discussed in the section on smart growth, the Easton new growth area is adjacent to developed areas of Rancho Cordova and Folsom, the project is a mixed use proposal close to mass transportation options, and the project is currently designed to be accessible and pleasant for pedestrians. These factors will provide for new growth while minimizing trip lengths and promoting pedestrian and bicycle usage.

The West of Watt area is adjacent to the urbanized portions of the Antelope and Foothill Farms/North Highlands communities, and Watt Avenue is a major transportation corridor for the County. The proposed General Plan states that the Watt Avenue corridor will be developed with a mix of residential, commercial, and employment-center uses. The location of the West of Watt area within an urbanized area will keep trip lengths shorter and will promote walking and biking by providing residents with access to many nearby amenities.

All of the proposed Commercial Corridors are redevelopment, not new development areas. The Commercial Corridors are located along arterial roadways that have aging commercial and multiple-family residential buildings that can be renovated to allow a mix of uses (first floor commercial with upper floor residential, for instance), and that have vacant or abandoned properties. These corridors are all well within the existing urbanized environment, with access to transit options. Proposed General Plan Policy LU-12 specifically states that "non-transit supportive" uses will be avoided, as will uses that involve large parking lots fronting on the street. Avoiding large on-street parking lots is pedestrian friendly, as it allows people on the sidewalk to enter buildings without having to cross large parking lots to get there. Overall, the redevelopment of the designated Commercial Corridors is expected to increase non-vehicular activity.

The proposed General Plan Land Use Element does contain two policies that specifically address public health, as follows:

LU-28
When planning for new development in either new or existing communities, the following features shall be considered for their public health benefits and ability to encourage more active lifestyles:

- Compact, mixed use development and a balance of land uses so that everyday needs are within walking distance, including schools, parks, jobs, retail and grocery stores.

- Streets, paths and public transportation that connect multiple destinations and provide for alternatives to the automobile.

- Wide sidewalks, shorter blocks, well-marked crosswalks, on-street parking, shaded streets and traffic-calming measures to encourage pedestrian activity.

- Walkable commercial areas with doors and windows fronting on the street, street furniture, pedestrian-scale lighting, and served by transit when feasible.

LU-29
Provide safe, interesting and convenient environments for pedestrians and bicyclists, including inviting and adequately-lit streetscapes, networks of trails, paths and parks and open spaces located near residences, to encourage regular exercise and reduce vehicular emissions.

The CEQA Guidelines provide criteria for subjects that affect human health, such as sufficiency of landfill capacity, the proper handling and location of hazardous materials, the generation of traffic, and the emission of air pollutants, but human health is not a stand-alone impact requiring discussion in CEQA documents. Therefore, there are no significance criteria either required or available to apply to this subject. This discussion is included to provide additional information. Reviewers are directed to peruse the smart growth discussion above and the other chapters of this EIR that contain impact discussions with ramifications for human health (e.g. Air Quality).

IMPACT: DIVISION OR DISRUPTION OF ESTABLISHED COMMUNITY

The division or disruption of an established community is an impact considered by CEQA. Case law has established that a project must create physical barriers within the established community in order to be considered under this impact category. An example of a qualifying project is a new highway through an existing town. The only qualifying elements included in the Project are new roadways, and all of these new roadways either reflect existing land use proposals (e.g. Easton) or are through sparsely populated areas. The Project does not include any elements that would result in significant division or disruption of an established community. Therefore, impacts are *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: CONVERSION OF OR CONFLICT WITH FARMLAND

Sacramento County encompasses 636,083 acres, of which 34% is productive agricultural land. Total production includes harvested acreage of field crops, fruit and nut crops, seed crops, vegetable crops, and nursery crops. Much of the production occurs in the southern portion of the County within three Resource Conservation Districts, which total 386,920 acres.

The viability and potential productivity of farmlands are classified through the State Inventory of Important Farmland (based on the soil characteristics) and some properties are within a Williamson Act contract (see the Regulatory Setting section of this chapter). The State Inventory of Important Farmland program documents the location, quality, and quantity of agricultural lands and conversion of those lands over time. These lands are divided into the following four categories: Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance. Plate LA-3 details the distribution of these lands within the County. Within the County the distribution of these categories is as follows: Prime Farmland 110,278 acres, Farmland of Statewide

Importance 56,140 acres, Unique Farmland 15,187 acres, and Farmland of Local Importance 39,873 acres.

The General Plan proposes four new growth areas. These growth areas are West of Watt, Easton, Grant Line East, and the Jackson Highway Corridor. Growth is also planed within Commercial Corridors and residential infill lands. West of Watt and Easton New Growth Areas, and the residential infill lands do not abut or encompass agricultural lands. Grant Line East, the Jackson Highway Corridor, and some of the Commercial Corridors encompass and/or abut farmlands included in the State Inventory. Plate LA-6 shows the distribution of these lands within the Jackson Highway Corridor and Grant Line East growth areas, and Plate LA-9 shows the distribution within the Commercial Corridors.

In addition to the significance criteria outlined by CEQA, both the existing and proposed General Plan include policies related to agricultural uses. The potential impacts of the proposed changes to policies are described in Table LA-4, in a previous section of this chapter. The table includes a brief description of how the proposed policy relates to the existing policy. The complete text of each policy is included as Appendix A of this EIR.

The proposed General Plan includes amendments to many of the policies that guide agricultural use to extend their coverage to include farmlands of Statewide Importance, Unique farmlands, and farmlands of Local Importance, as discussed in a previous section. The existing policies only apply to Prime farmlands and lands with "intensive agricultural investments". Existing and proposed policies that guide this discussion are detailed below.

AG-1 (Existing)
The County shall protect prime farmlands and lands with intensive agricultural investments from urban encroachments.

AG-1 (Proposed)
The County shall protect prime, statewide importance, unique and local importance farmlands and lands with intensive agricultural investments from urban encroachment.

New growth areas will introduce development onto and adjacent to areas previously or currently designated for agricultural use. The current policy directs the County to protect prime farmland and land with intensive agricultural investments. The proposed policy extends this protection to farmlands of Statewide Importance, Unique farmlands, and farmlands of Local Importance. If the project is approved with the addition of these lands, project impacts on farmlands will increase because the amount of acreage that is protected will increase. However, those lands that are subject to development remain the same.

AG-5 (Existing)
Mitigate loss of prime farmlands or lands with intensive agricultural investments through CEQA requirements to provide in-kind protection of nearby farmland.

AG-5 (Proposed)
Mitigate within Sacramento County the loss of prime, statewide importance, unique and local importance farmlands or lands with intensive agricultural investments through the specific planning process and individual project entitlement requests to provide in-kind protection (must be an equal or higher farmland category), such as easements for agricultural purposes of nearby farmland.

The new growth areas may result in the loss of agricultural lands through conversion of these lands to urban use. Through the existing policy the loss of these lands is mitigated for though the CEQA process. The proposed policy extends mitigation to farmlands of Statewide Importance, Unique farmlands, and farmlands of Local Importance while specifically including in-County mitigation. If the project is approved with the addition of these lands, mitigation-eligible farmlands will increase because the amount of acreage that is protected will increase. In this case, while the lands that are subject to development remain the same, there would be more farmland preserved through mitigation if the proposed policy is approved.

AG-22 (Existing)
The County shall actively encourage enrollments of agricultural lands in its Williamson Act program.

AG-22 (Proposed)
The County shall actively encourage enrollments of prime, statewide importance, unique and local importance agricultural lands in its Williamson Act program.

AG- 23 (Existing)
Discourage property owners from filing notices of nonrenewal.

AG-24 (Existing)
Support and promote the rescission of notices of nonrenewal and replacement of Williamson Act contracts, pursuant to the provisions of Government Code Section 51254, in areas outside the Urban Services Boundary for which notices of nonrenewal have been filed.

AG-23 (Proposed, combination of existing AG-23 and AG-24)
Proactively discourage property owners from filing notices of nonrenewal and support and promote the rescission of notices of nonrenewal and replacement of Williamson Act contracts, pursuant to the provisions of Government Code Section 51254, in areas outside the Urban Services Boundary for which notices of nonrenewal have been filed, by establishing agriculture-friendly land use practices that include additional economic incentives, such as the Agri-tourism program described in this Element.

In those areas where new growth is proposed and Williamson Act contracts exist, the proposed Project conflicts with the above policies. Increasing development pressures through the provision of New Growth Areas are likely to discourage land owners from remaining within Williamson Act contracts. In those areas where contacts do not exist

but lands could be eligible, designating the land for urban development will make enrollment unlikely. AG-23 and AG-24 have been combined here and expanded on to include ag-friendly land use practices.

AG-24 (Proposed, new)
Support the state-formed program for Farmland Security Zones (also known as the Super Williamson Act).

CO-63 (Proposed, renumbered, existing CO-54)
Direct development away from prime and statewide importance soils or otherwise provide for mitigation that slows the loss of additional farmland conversion to other uses.

CO-55 (Existing)
Projects resulting in the conversion of more than fifty (50) acres of prime or statewide in importance farmland shall be deemed to have a significant environmental effect, as defined by CEQA.

CO-64 (Proposed)
Projects resulting in the conversion of more than fifty (50) acres of prime, statewide importance, unique, and local importance farmland shall be deemed to have a significant environmental effect, as defined by CEQA.

The conversion of prime, statewide importance, unique and local importance farmlands to urban use will result in their permanent loss. Existing and proposed General Plan policies provide for mitigation for the loss of these agricultural lands. General Plan policies AG-5 (existing and proposed) and CO-54 (existing) and CO-63 (proposed) specifically provide for mitigation due to conversion of farmlands. However, other than specifying that the mitigation shall be "in-kind", or of the same or better type of farmland, the amount of mitigation required is not specified. Policy AG-5 should be amended to include a specific amount of mitigation (e.g. 1:1). A monetary compensation for the loss of these lands, similar to what is done for Swainson's hawk and wetlands, should also be considered if farmland preservation is to be of equal importance as these other resources. Funds collected for this purpose would be directed toward the acquisition, preservation, and maintenance of farmlands. Preferably, those lands would be located within the boundaries of the affected area, or nearby.

Jackson Highway Corridor

The Jackson Highway Corridor new growth area contains 137 acres of Prime Farmland, 1,301 acres of Farmland of Statewide Importance, 42 acres of Unique Farmland, 2,374 acres of Farmland of Local Importance, and 5,243 acres of Grazing land. There are also 1,069 acres of land within Williamson Act contract, and an additional 1,321 acres in non-renewal. Table LA-5 lists all of the protected farmlands and Williamson Act lands. Existing general plan policies AG-1, AG-5, CO-63, and CO-64 protect Prime Farmland and Statewide Importance farmland; however the other farmland classifications are not specifically protected. The Project could result in the conversion of up to 1,438 acres of

farmland protected by existing policy to urban uses. Conversion of more than 50 acres of designated farmlands is considered a significant impact. Therefore, under existing policies, impacts are *significant*.

In addition to Prime and Statewide Importance farmlands, the CEQA Guidelines also protects Unique farmlands. This is not a significant addition to the amount of protected farmland that may be impacted, but since the total protected farmland that has the potential to be converted to non-agricultural uses based on the CEQA Guidelines is 2,781 acres, the impact is *significant* under this significance criteria also.

Table LA-5 Protected Farmland Classifications in the Jackson Highway Corridor

Farmland Type	Acreage
Prime Farmland	137
Farmland of Statewide Importance	1,301
Unique Farmland	42
Farmland of Local Importance	2,374
Williamson Act – Active	1,069
Williamson Act – Non-Renewal	1,321

Under the proposed polices the conversion of more than 50 acres of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance is considered a significant impact. The Jackson Highway Corridor new growth area contains, in total, 3,852 acres of farmlands that are protected under proposed General Plan policies that could be converted to urban use. Under the proposed General Plan significance criteria, this is a *significant* impact.

The Jackson Highway Corridor new growth area also contains 1,070 acres of active Williamson Act contracts and 1,321 acres of non-renewal contracts. Elements in both the existing and proposed general plan include policies (AG-22, AG-23, and AG-24) intended to discourage the filing of non-renewal notices and encourage the rescission of non-renewal notices for Williamson Act Contracts. Approval of this area for urban use will encourage non-renewal of the existing contracts and support existing non-renewal notices. The CEQA Guidelines state that substantial conflict with existing Williamson Act Contracts is considered a significant impact. With over two thousand acres of Williamson Act contracts involved, the development of the Jackson Highway Corridor will result in *significant* impacts.

The General Plan states that the Jackson Highway Corridor area is intended to offer a balanced mix of uses while preserving habitat. There are no specific land use designations proposed at this time, nor are there specific design elements planned to achieve these goals. This makes it difficult to know exactly how this stated goal will be

implemented. However, proposed Policy LU-16 states that the Project shall be consistent with the South Sacramento Habitat Preservation Plan (SSHCP), a portion of which lies within the Jackson Highway Corridor new growth area. A number of active Williamson Act Contracts as well as some non-renewal contracts are located in the southeastern portion of the proposed growth area within the proposed SSHCP. Adoption of the SSHCP, which results in the preservation of this area, will promote the protection of farmlands in this area. Though the preservation of these farmlands offsets some of the farmland impacts, the reduction is not sufficient to reduce impacts to less-than-significant levels. Future development of the Jackson Highway Corridor is expected to result in significant impacts to protected farmlands. Even with in-kind mitigation in accordance with existing or proposed General Plan policy LU-5, the loss of thousands of acres of farmland remains a *significant* impact.

Grant Line East

The majority of the Grant Line East new growth area consists of grazing land. The proposed growth area contains three pockets of Farmland of Local Importance totaling 717 acres and one pocket of Unique Farmland totaling 9 acres. Table LA-6 lists all of the protected farmlands and Williamson Act lands. These agricultural lands are not specifically protected under existing general plan policies. Based on the existing policy, farmland impacts resulting from development of the Grant Line East area are *less than significant*. Unique farmlands are protected based on the CEQA Guidelines, but a 9-acre loss of farmland is *less than significant*.

The proposed General Plan policies extend protection to Unique Farmland and Farmland of Local Importance. The Grant Line East new growth area will result in the potential conversion of 717 acres of Farmland of Local Importance, plus 9 acres of Unique Farmland. Farmland impacts based on the proposed General Plan policies are *significant*.

The Grant Line East new growth area also contains 2,307 acres of active Williamson Act contracts and 1,148 acres of non-renewal contracts. Elements in both the existing and proposed general plan include policies (AG-22, AG-23, and AG-24) intended to discourage the filing of non-renewal notices and encourage the rescission of non-renewal notices for Williamson Act Contracts. Approval of this area for urban use will encourage non-renewal of the existing contracts and support existing non-renewal notices. The CEQA Guidelines state that substantial conflict with existing Williamson Act Contracts is considered a significant impact. Therefore, impacts are considered *significant*.

A number of active Williamson Act Contracts exist in the western portion of the proposed growth area and within the proposed SSHCP. Preservation of this area will promote the retention of the existing contracts located within the SSHCP boundaries. Adoption of the SSHCP, which results in the preservation of this area, will promote the renewal of the existing contracts located within the SSHCP boundaries and encourage rescission of the non-renewal notices in this area. Though the preservation of these

contracts will offset some farmland impacts, the reduction is not sufficient to reduce impacts to less-than-significant levels.

Table LA-6 Protected Farmland Classifications in Grant Line East

Farmland Type	Acreage
Prime Farmland	0
Farmland of Statewide Importance	0
Unique Farmland	9
Farmland of Local Importance	717
Williamson Act – Active	2,307
Williamson Act – Non-Renewal	1,148

Commercial Corridors

Three of the proposed commercial corridors contain Farmland of Local Importance and one contains Prime Farmland. Under existing general plan policies conversion of more than 50 acres of Prime Farmland or Farmland of Statewide Importance is considered a significant impact. Approximately 27 acres of Prime Farmland and 4 acres of Farmland of Local Importance exists within the proposed commercial corridor located along Greenback Lane between Hazel Avenue and Chestnut Avenue. Though Prime Farmland is recognized within the existing general plan policies, the 27 acres found in this area does not meet the significance threshold of 50 acres. Neither the CEQA Guidelines nor existing County policy significance thresholds include Local Importance farmlands. On an individual level, this corridor does not result in significant conversion of farmland according to either the existing General Plan policy or the CEQA Guidelines – based on the existing General Plan policies, impacts are *less than significant*.

The General Plan policy amendments discussed above extend protection to Farmland of Local Importance, which would increase the amount of acreage impacted. The Greenback Lane Commercial Corridor contains 27 acres of Prime Farmland and 4 acres of Local Importance farmland, the Stockton Boulevard Commercial Corridor contains 140 acres of Local Importance farmland, and the Florin Road Commercial Corridor contains 51 acres of Local Importance farmland. On an individual level, the Stockton and Florin Commercial Corridors result in significant conversion of farmland, while the Greenback Lane Commercial Corridor does not individually convert significant amounts of farmland.

Approximately 195 acres of Farmland of Local Importance and 27 acres of Prime Farmland is distributed between the proposed commercial corridors located along Greenback Lane, Stockton Boulevard and Florin Road. Cumulatively the loss of farmland that will result from infill in these corridors is *significant*.

Table LA-7 Farmland Classifications in the Commercial Corridors

Farmland Type	Acreage
Prime Farmland	27
Farmland of Statewide Importance	0
Unique Farmland	0
Farmland of Local Importance	195
Williamson Act – Active	0
Williamson Act – Non-Renewal	0

INFILL AREAS AND PLANNED COMMUNITIES

As part of the buildout of the infill areas, there will be farmlands affected by development. Other farmlands will be affected by the buildout of the planned communities – the Florin Vineyard Gap, North Vineyard Station, and Vineyard Springs communities. Most of the designated farmlands that will be affected are Farmlands of Local Importance. However, there are some large areas designated as Farmland of Statewide Importance, and there are also areas of Prime or Unique Farmland. The first two farmland types are protected by both the CEQA Guidelines and existing General Plan policy, and the third is protected by the CEQA Guidelines and proposed General Plan policy, and the last is protected by proposed General Plan policy. Table LA-10 shows the amount of protected farmland within the existing master planning areas and within the infill areas. As shown, development in these areas could result in the loss of up to 26 acres of Prime Farmland, 304 acres of Farmland of Statewide Importance, 180 acres of Unique Farmland, and 3,333 acres of Farmland of Local Importance related to infill development and buildout of planned communities. Whether assessed based on existing policy, proposed policy, or the CEQA Guidelines, this impact is significant. This impact was already identified through the master planning process for the Planned Communities, and through prior General Plan processes, and will occur regardless of whether this Project is approved.

Table LA-8 Infill and Planned Communities

Farmland Type	Location	Acreage
Prime	Florin Vineyard Gap	8
	North Vineyard Station	12
	Vineyard Springs	6
	TOTAL	*26*
Statewide Importance	Florin Vineyard Gap	264
	North Vineyard Station	40
	TOTAL	*304*
Unique	Florin Vineyard Gap	122
	Infill Parcels	58
	TOTAL	*180*
Local Importance	Elverta Specific Plan	72
	Florin Vineyard Gap	1820
	North Vineyard Station	1016
	Vineyard Springs	425
	TOTAL	*3,333*

Plate LA-6
Agricultural Lands in the Jackson Highway Corridor and Grant Line East Areas

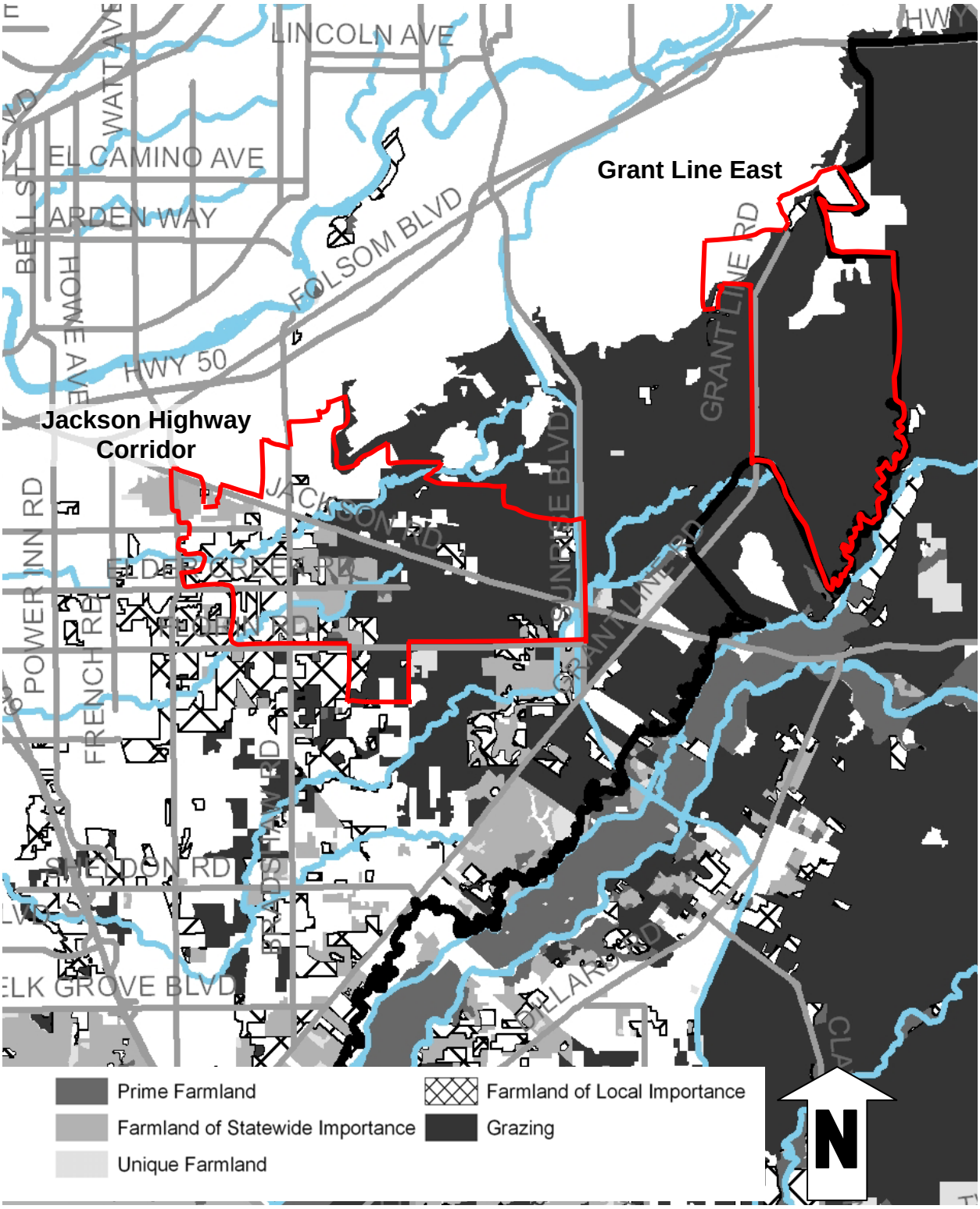


Plate LA-7 Protected Agricultural Lands within Jackson Highway Corridor

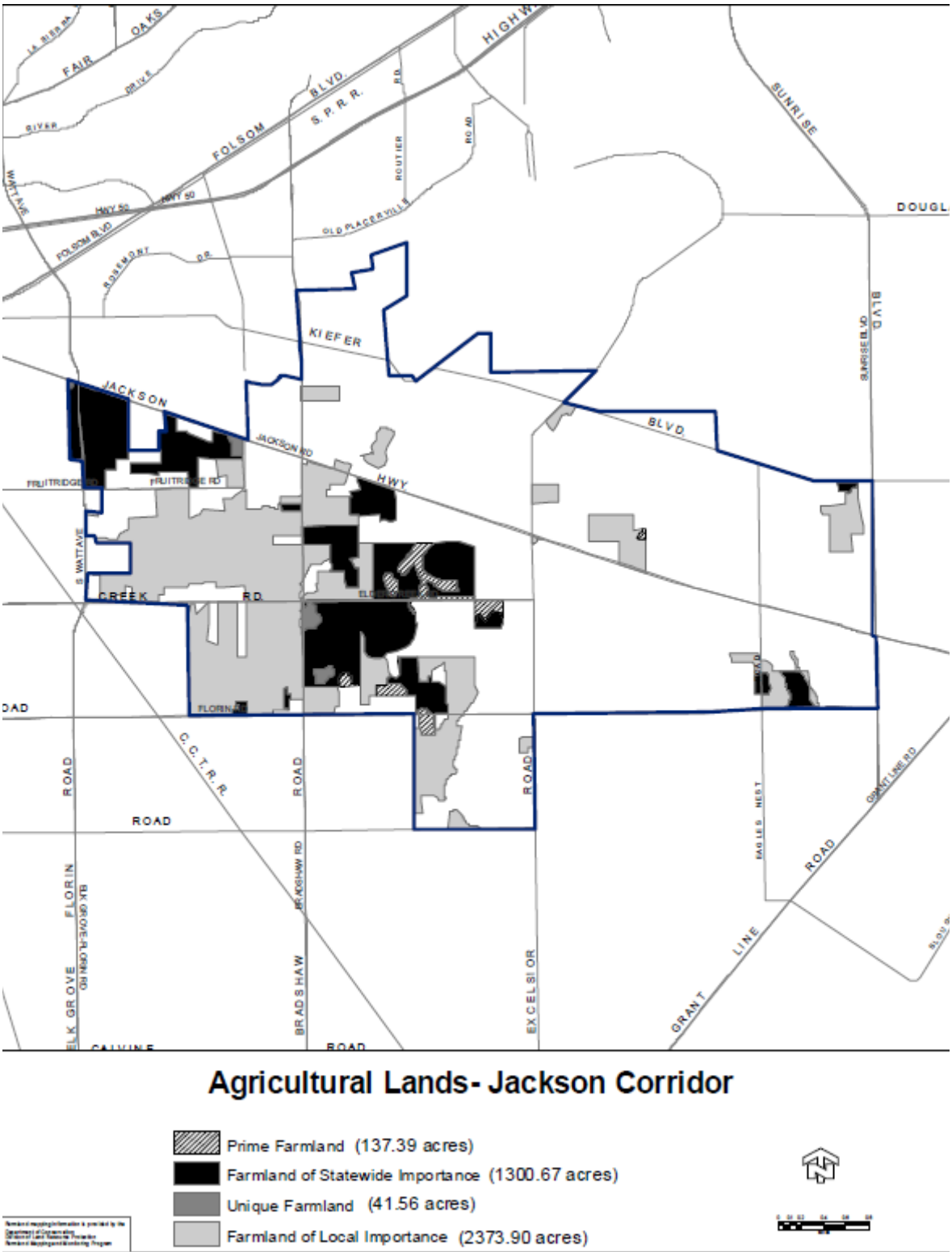


Plate LA-8 Protected Agricultural Lands within Grant Line East

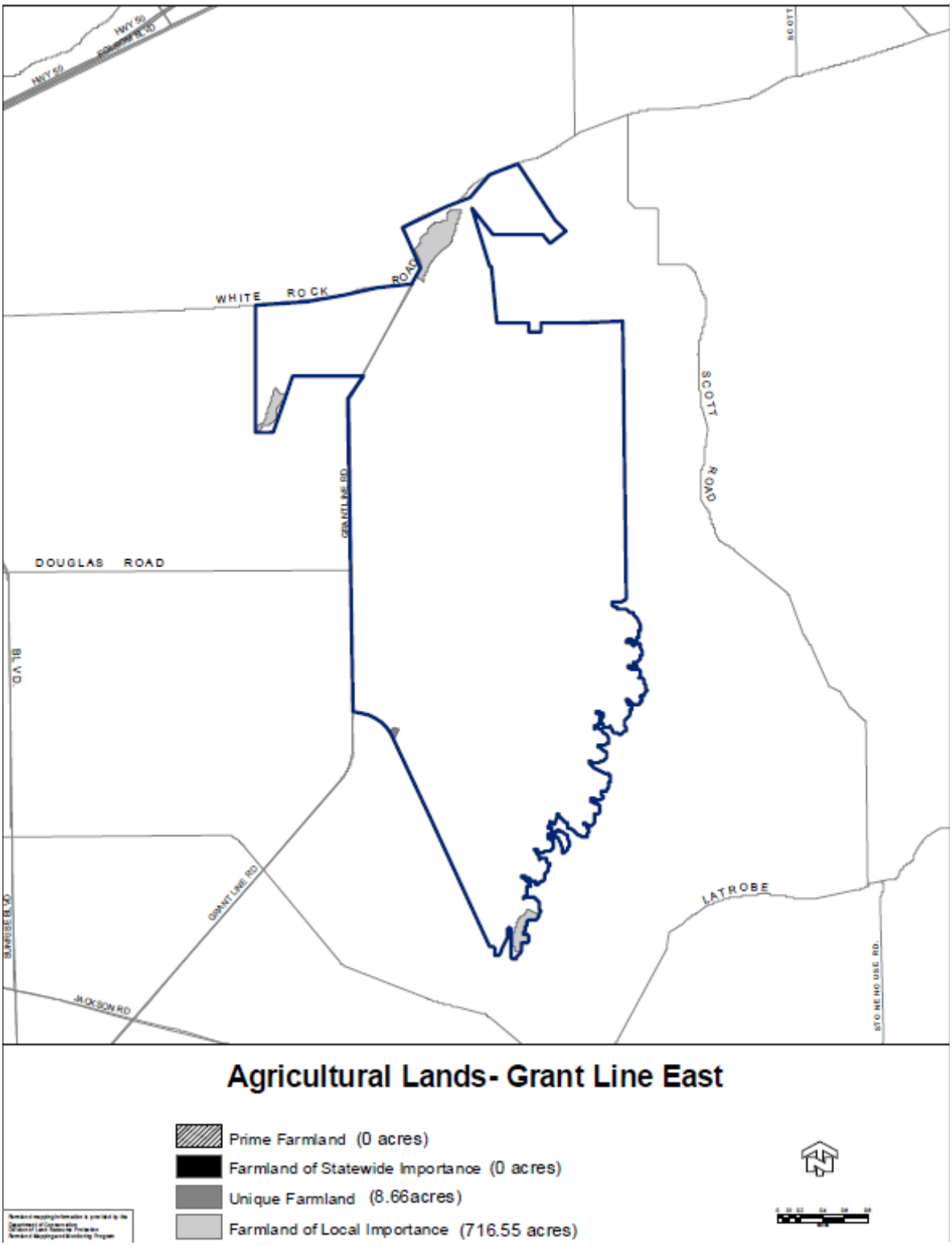
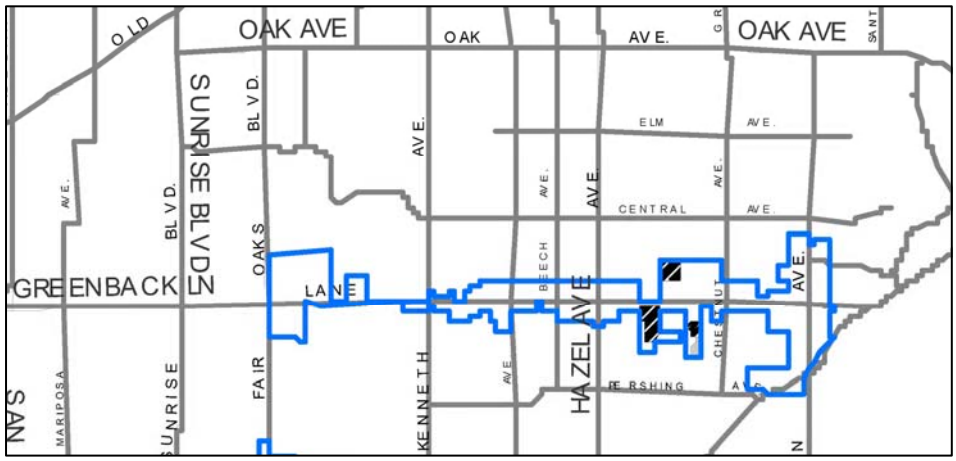
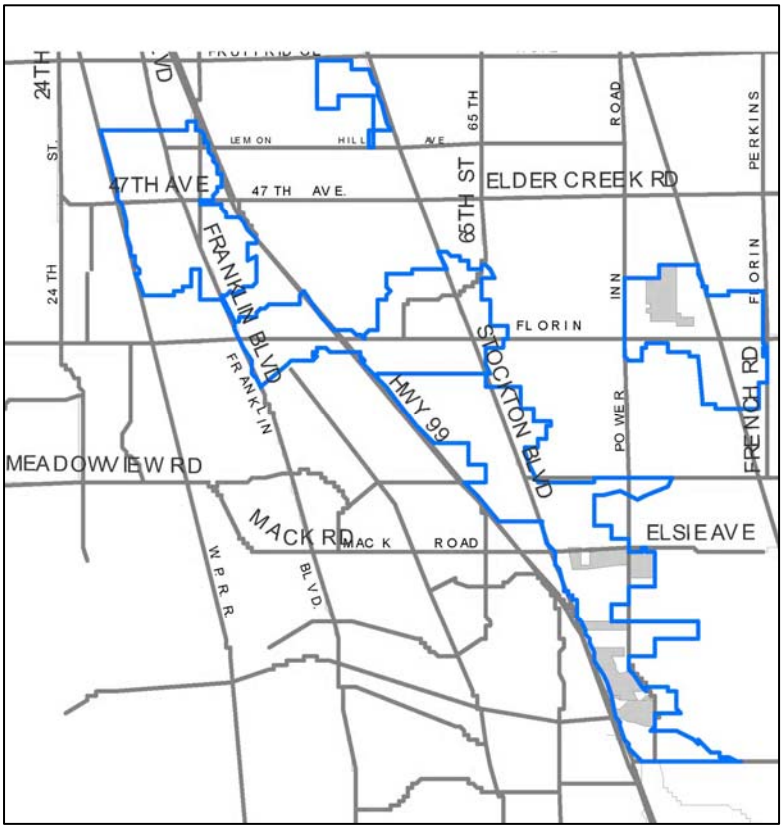


Plate LA-9
Agricultural Lands In the Greenback, Stockton, and Florin Commercial Corridors





Prime Farmland (27.46 acres)

Farmland of Statewide Importance (0 acres)

Unique Farmland (0 acres)

Farmland of Local Importance (195.75 acres)

SUMMARY OF FARMLAND IMPACTS

Considering the Jackson Highway Corridor, the Grant Line East area, and the Commercial Corridors together, the Project has the potential to impact 190 acres of Prime Farmland, 1,605 acres of Farmland of Statewide Importance, 231 acres of Unique Farmland, and 6,619 acres of Farmland of Local Importance, for a total of 8,645 acres of designated farmlands. A total of 3,377 acres of lands in the County are under Williamson Act Contract, and an additional 2,469 acres are in non-renewal contracts. Although County policy does require mitigation, and other policies are intended to support existing agriculture, the amount of farmland within designated development areas is so substantial that in-kind mitigation will not be sufficient to offset the impact. Mitigation is included to change policy language to specify a 1:1 mitigation ratio, to improve the level of impact reduction. However, even with this mitigation, it must be recognized that prime soils are a finite resource. When an area is permanently taken out of agricultural production, there has been a net-loss of agricultural lands. Other agricultural lands may be preserved through compliance with mitigation, but new agricultural soils will not be created. There will be a substantial net-loss of agricultural production within Sacramento County as a result of the Project, and impacts are *significant*.

Table LA-9 Summary of Farmland Impacts

Farmland Type	Acreage
Prime Farmland	190
Farmland of Statewide Importance	1,605
Unique Farmland	231
Farmland of Local Importance	6,619

MITIGATION MEASURES:

LU-6. Amend policies CO-63 and AG-5 to require 1:1 mitigation, and include an Implementation Measure to Policy AG-5 which directs the establishment of a farmland mitigation fund that can be used to acquire, preserve, and maintain farmlands.

IMPACT: DISPLACEMENT OF HOUSING

The proposed Transportation Plan includes new roadways and some upgrades of roadway designations, which are discussed in the Traffic and Circulation chapter. The new roadways are concentrated in areas that are sparsely populated, and where existing land use proposals are in process (e.g. Easton), so none of these are expected to require displacement of existing housing. However, many of the roadways to be redesignated are in existing urban environments with constrained right-of-ways. Widening these existing roadways may result in some displacement of housing, though it can't be quantified at this time. This is partly because many times the necessary right-of-way for streets is not acquired through property purchases, but instead is granted to

the County as part of individual development applications. As parcels of land along the designated roadways become the subject of requests for lot splits or similar actions, the County requires the granting of the appropriate right-of-way in return. Also, the houses themselves may be set back far enough from the street that the result is loss of front yard rather than the loss of the entire house.

Any roadway for which the proposed Transportation Plan includes a facility designation upgrade (e.g. 2-lane to 4-lane) was reviewed using the County GIS system to determine whether there were single-family homes along the frontage, and the proximity of the homes to the existing right-of-way. The roadways upgraded on this Transportation Plan that, based on potential encroachment of right-of-way too near a home, may require displacement of housing as part of roadway expansion include: 34th Street (Rio Linda), U Street (Rio Linda), Palm Avenue (Rio Linda), and 16th Street (Rio Linda). There are likely to be other areas where displacement will occur as roadway projects are proposed and more specific details are available. Though some houses may not be directly affected by the roadway right-of-way, typically if a roadway will encroach into the front yard or garage setback required by the zoning of a parcel, the County will acquire the property. An analysis of that level of detail cannot be accomplished until specific roadway projects are proposed.

Properties affected by partial acquisition, where a portion of the yard is lost, will be subject to reappraisal and reduced property taxes. Loss of tax revenues is an adverse community economic impact that varies, depending on circumstances. For properties affected by total acquisition, the owners will be provided with fair compensation for the loss. In accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, Caltrans or the local agency will provide relocation advisory assistance to any person, business, farm, or nonprofit organization displaced as a result of the acquisition of real property for public use.

The amount of housing that may be displaced by the Project is far outweighed by the amount of housing projected to be accommodated by implementation of the Project. The Project will not require the construction of unplanned replacement housing elsewhere as a result of the displacement of existing housing; impacts are *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: AIRPORT SAFETY ZONE INCOMPATIBILITY

There are three basic safety zones: the Clear Zone, the Approach/Departure Zone, and the Overflight Zone. The uses allowed in each of these zones is established through the CLUP process. The tables indicating allowable uses were also incorporated into the existing General Plan Noise Element, though they have not been carried forward into the proposed General Plan.

The Clear Zone is the highest risk area that overlies the ends of the runway, where aircraft are just beginning to lift off the runway or just coming down to land. The only uses allowed in the Clear Zone are agricultural fields and passive open space.

The Approach/Departure Zone is the next highest risk area, and it covers the area beyond the clear zone, where aircraft is at low altitude and either coming in to land or climbing up from takeoff. Many common uses are prohibited within this Zone, because the Zone is restricted to uses that involve low numbers of people and uses that do not involve concentrations of potentially explosive or hazardous materials. The Approach/Departure Zone does allow single-family uses, but because it requires a 5-acre parcel size, only agricultural-residential properties (zoned AR-5 or greater) would be permitted. All other types of residential uses are prohibited, as are most forms of retail, recreational areas, and civic uses. Uses that are allowed include passive open space, most agricultural uses, auto sales and repair, and industrial uses that don't involve hazardous or explosive materials (such as lumber or furniture warehouses).

The Overflight Zone is the area of least risk, and describes the area where aircraft are maneuvering in to begin descent or maneuvering into their flight path after ascent. Given the rarity of accidents in this Zone, the only uses generally prohibited in the Overflight Zone are those at highest risk, either because there are large concentrations of people (stadiums), sensitive groups (school children), or large concentrations of hazardous/explosive materials (chemicals or fuel).

Sacramento Executive safety zones are mostly within the City of Sacramento (Plate LA-10). The Overflight zone does extend into the County and over the Franklin Boulevard Commercial Corridor, but no other Project elements are affected by the safety zones of this airport.

Mather Field safety zones overlie a portion of the Jackson Highway Corridor area, as shown on Plate LA-11. The southernmost Approach/Departure Zone overlies approximately 120 acres in the northwestern portion of the growth area, and the Overflight zone overlies approximately 3,200 acres in the northern portion of the growth area.

McClellan Airpark safety zones overlie the West of Watt new growth area, the Watt Avenue North Commercial Corridor, Watt Avenue Central Commercial Corridor, Auburn Boulevard Central Commercial Corridor, and the Fulton Avenue Commercial Corridor (Plate LA-12). Only one part of the Project is within a clear zone, and that is a small corner of the southern portion of the Watt Avenue North Commercial Corridor. There are many parts of the Project that lie within the Approach/Departure zone of McClellan: the southwestern portion of the Watt Avenue North Commercial Corridor, the middle section of the Auburn Boulevard Central Commercial Corridor, the northern section of the Fulton Avenue Commercial Corridor, and the northern section of the West of Watt New Growth Area. The Overflight area also contains many Project elements: all but the eastern edge of the West of Watt New Growth Area, a portion of the western edge of the Watt Avenue North Commercial Corridor, most of the Watt Avenue Central Commercial Corridor, most of the Auburn Boulevard Central Commercial Corridor, the

Fulton Avenue Commercial Corridor from just north of Cottage Way, and portions of the western edge of the Watt Avenue South Commercial Corridor.

Allowable uses within the safety zones described above will be restricted, based on the CLUPS in effect at the time a project is proposed. Compliance with the provisions of the CLUPs will ensure that airport safety impacts are *less than significant*.

MITIGATION MEASURES:

None recommended.

Plate LA-10 Sacramento Executive Safety Zones

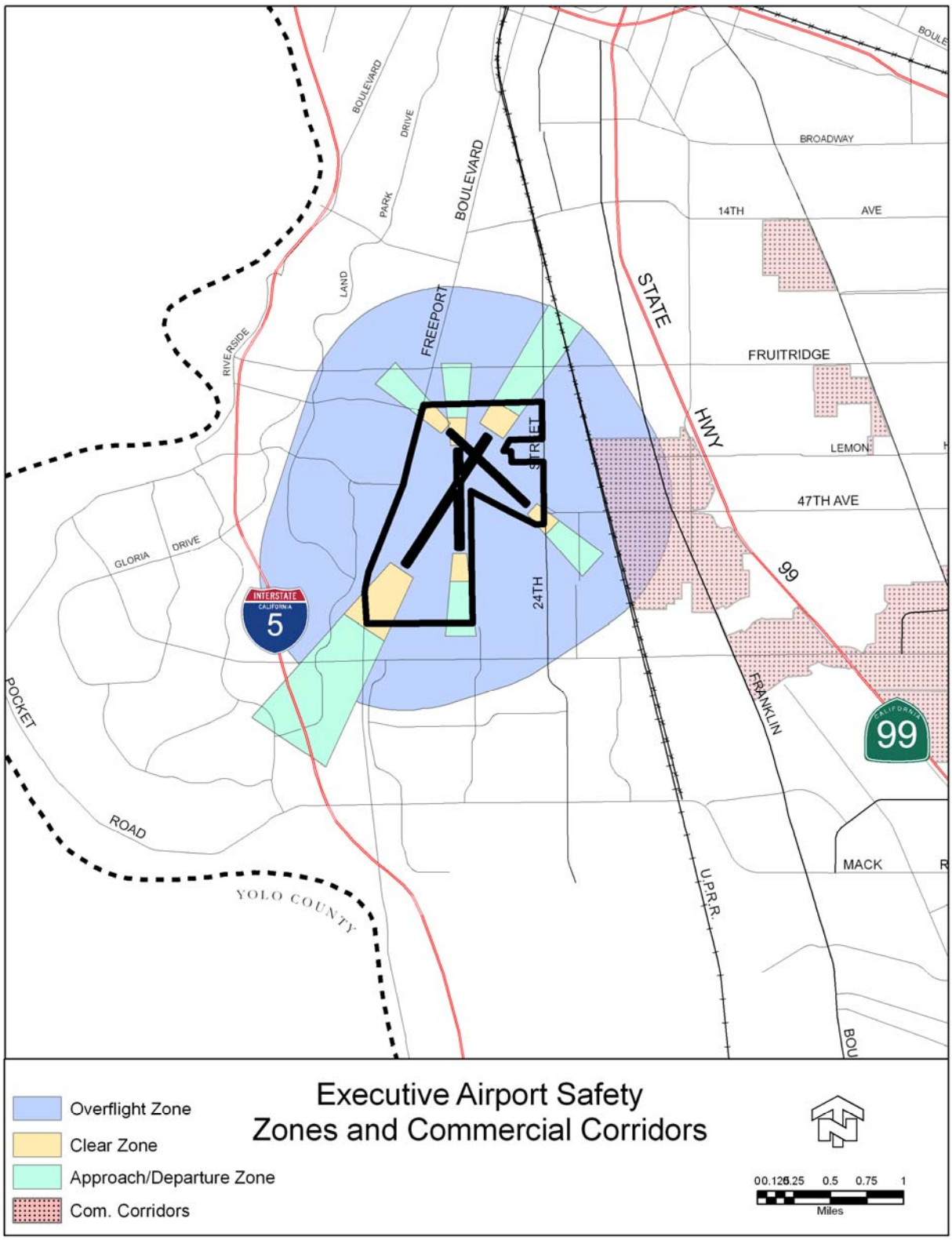


Plate LA-11 Mather Field Safety Zones

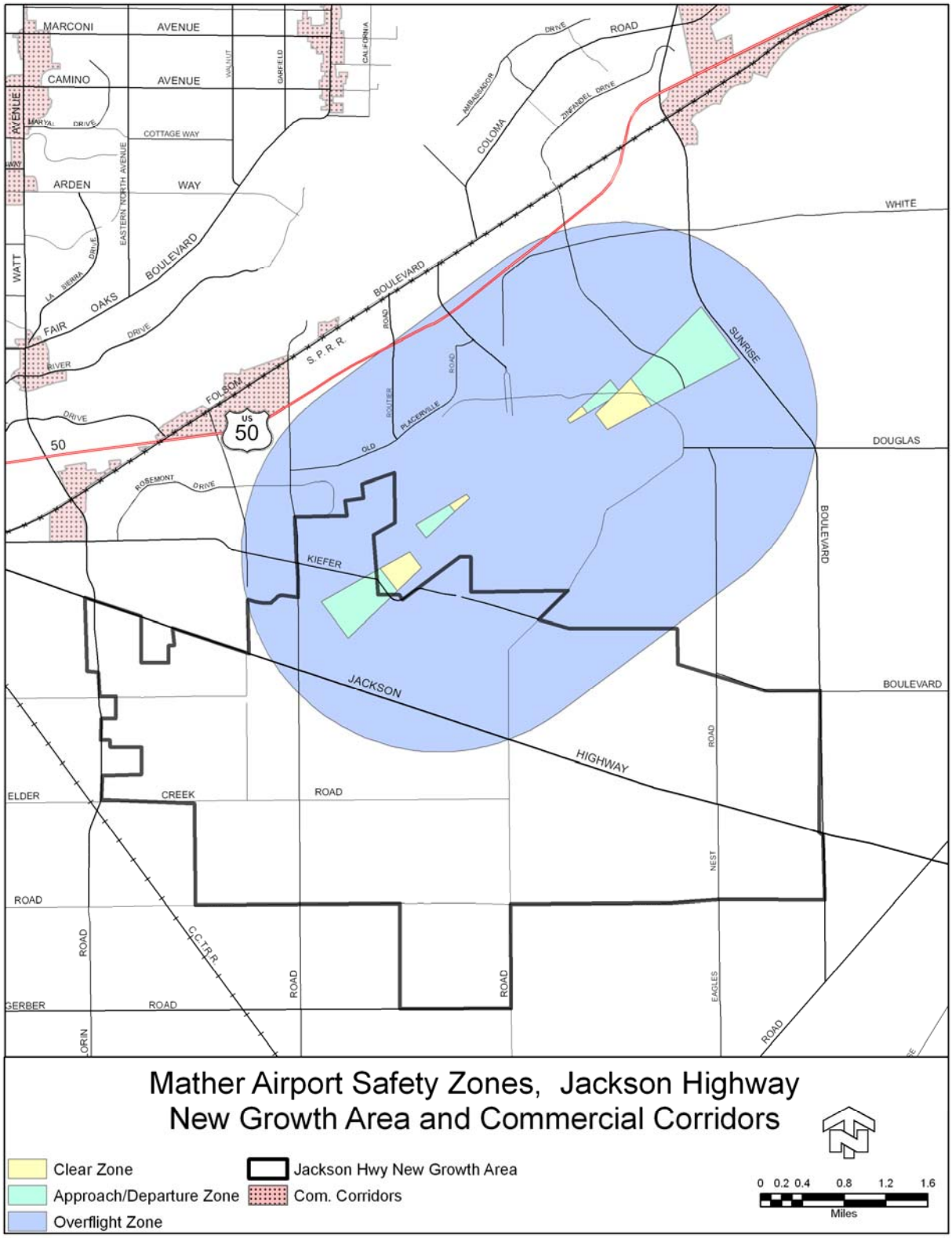
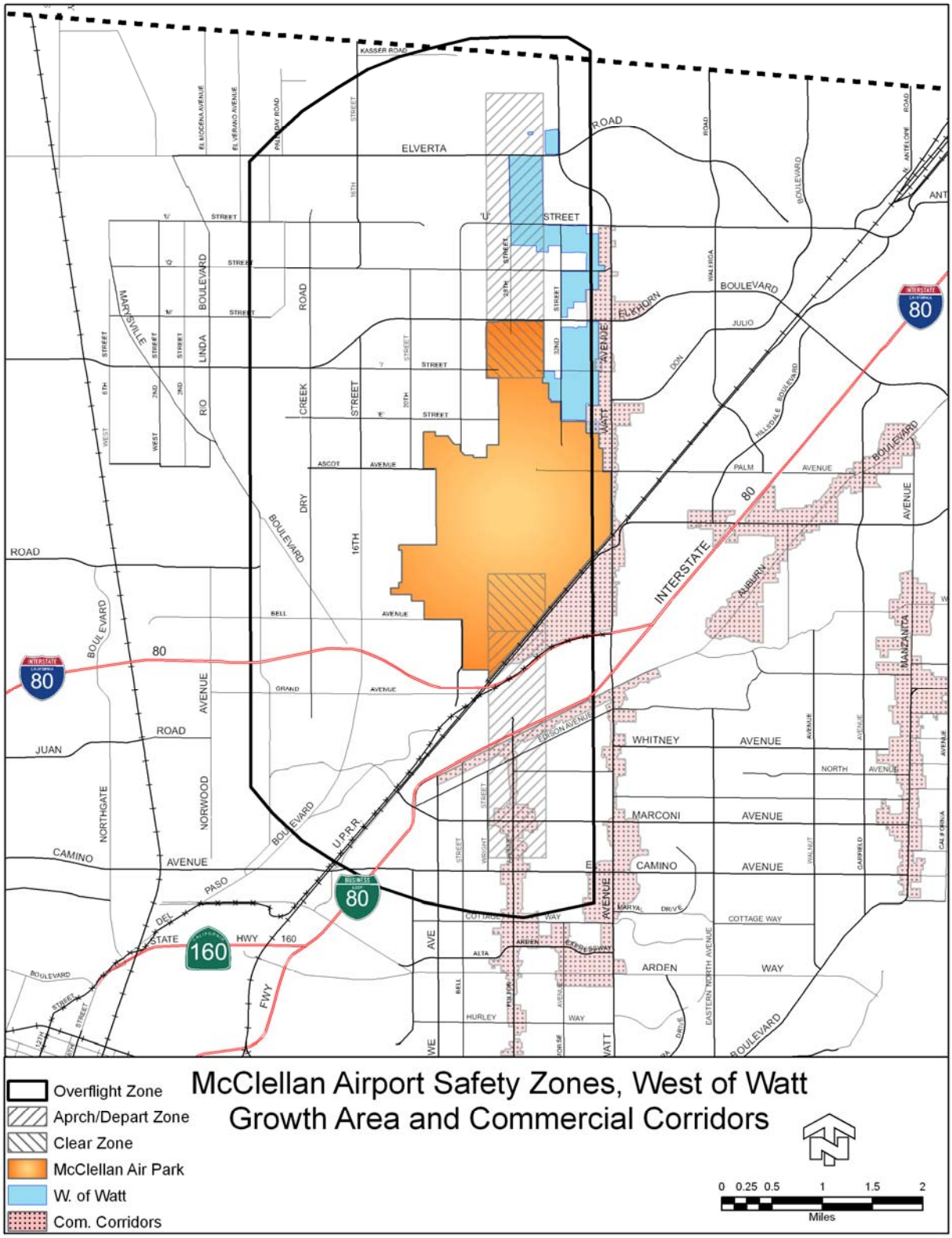


Plate LA-12 McClellan Safety Zones



NO PROJECT ALTERNATIVE

IMPACT: LAND USE PLAN COMPATIBILITY

The existing General Plan has been in effect since 1994, and is consistent with other existing County land use planning documents, and with the land use plans of adjacent jurisdictions. The impacts of retaining the existing General Plan Land Use designations are *less than significant*.

MITIGATION MEASURES:

None recommended.

SMART GROWTH PRINCIPLES

Though the term "smart growth" is relatively new to popular language, the underlying principles have existed in a less codified way for quite some time. The existing General Plan, when created, was intended to incorporate the best management planning principles of the time. However, the existing General Plan has become outmoded. The existing General Plan Land Use Diagram was only meant to provide room for growth through the year 2010. Though active redevelopment within the existing General Plan would be sufficient to achieve the new growth forecasts of the SACOG Blueprint (see Alternative 3), many changes to the General Plan policies and the Transportation Plan would be necessary to achieve this goal. Approval of the No Project Alternative would result in the inability of the County to accommodate the projected 100,000 new units by 2030. Including reasonably-foreseeable projects, the No Project Alternative could accommodate up to 55,000 new units. The demand for this new housing would not diminish simply because the County had not planned for it, and so the growth would occur in neighboring counties and cities.

As part of the Blueprint process, SACOG drafted a "Base Case" scenario that examined what regional growth would look like without a more regional approach to planning. The result was more growth in Sutter, Yuba, El Dorado, and Yolo counties. Each of these counties contains a significant amount of green space, and are farther from major job centers and the urban core of the Sacramento area. Smart growth principles direct development toward existing urbanized communities and the preservation of green space (principles 5 and 7). One of the assumptions of the Preferred Scenario that SACOG ultimately adopted as the Blueprint was that Sacramento County would take the aforementioned 100,000 units. With this assumption, the overall footprint of regional growth is withdrawn from the outlying counties and concentrated more in the greater Sacramento area. The result is regional reductions in traffic, air quality, and other impacts. The No Project Alternative would be contrary to the Blueprint. Approval of the No Project Alternative would result in *significant* impacts related to conflict with smart growth principles.

MITIGATION MEASURES:

As the point of the No Project Alternative is to re-adopt the existing General Plan, there are no mitigation measures recommended.

IMPACT: LAND USE POLICY COMPATIBILITY

This section does not include the text of all of the existing policies of the General Plan. The existing policies are available within the Land Use Element of the existing General Plan, and within Appendix A of this EIR.

SMART GROWTH PRINCIPLES

Appendix A includes a list, by number, of all of the existing land use policies and indicates whether the policy is consistent or inconsistent with the smart growth principles. If a policy is neutral, it is not included in the table, and if a policy is either consistent or inconsistent the table indicates the principle(s) with which it is consistent or inconsistent. Out of all of the existing Land Use Element policies, four policies conflict with the smart growth principles: LU-67.B, LU-75, LU-76, and LU-78. Policies LU-75 and LU-76 are also discussed in the section on policy impacts of the Project, because the proposed General Plan includes modified versions of these policies (re-numbered LU-120 and LU-121). The text of these policies is provided below.

Policy #	Policy Text
LU-67B	The County supports Agricultural-Residential expansion outside the USB when it is determined by the Board of Supervisors to be necessary to meet demand levels. The County shall establish a program that determines the methodology for Ag-Res expansion and criteria for small-scale expansion.
LU-75	Except as permitted by LU-42, the County shall not accept applications to amend the General Plan Land Use Diagram from a designation in Column A to a designation in Column B for property located outside of the Urban Policy Area but within the Urban Service Boundary unless: • The property adjoins property designated for urban land uses and its shape and extent comprise a logical extension of infrastructure and services; and • There is clear evidence that infrastructure capacity and service availability exist or can be easily extended to the property; and • The Board finds that the unincorporated area land supply within the Urban Policy Area contains an insufficient land supply to accommodate a 15 year supply of growth; or • The Board determines that the property represents a minor and logical extension of the Urban Policy Area for the purpose of preparation of a Specific Plan or other development request.

LU-76	The Urban Policy Area is intended to provide a 20-year supply of developable land sufficient to accommodate projected growth. The UPA shall also include additional lands to ensure an appropriate supply. It is the policy and intent of the County to expand the UPA at a minimum of five year intervals to maintain a constant adequate supply of land. Guidelines to be considered by the Board in determining the expansion of the Urban Policy Area include: • Buildout rates by type of use, unit type and density for the previous 5-year period. • Infill trends and opportunities. • Population and job growth projections as reflected by a minimum of three independent sources. • Evidence that the infrastructure capacity and service availability exist or can be extended to the property.
LU-78	The County may modify the Urban Policy Area independent of changes in General Plan land use designations provided that the area encompassed by the changes meets the requirements of Policy LU-75, or the County has adopted a Community Plan which provides for extending urban services to existing agricultural-residential areas.

Existing policy LU-67B allows agricultural-residential expansion outside of the Urban Services Boundary. Locational limits for such expansion are included in existing policy LU-67C, but the limits do not address the key issue, which is how one determines whether expansion is "necessary to meet demand levels". It is unclear if "demand" refers specifically to demand for agricultural-residential parcels, or demand for residential development as a whole. Furthermore, none of the existing policies describe the factors that must be present in order to conclude that the expansion is "necessary". In absence of such specific criteria, this policy can lead to the expansion of low-density development outside of the Urban Services Boundary in a manner that is inconsistent with the direction of smart growth principles 5 and 7, which direct development toward existing urban areas and direct the preservation of open space.

Existing policy LU-75 allows the redesignation of agricultural and recreational lands outside the Urban Policy Area but inside the Urban Services Boundary, provided the request meets certain specified criteria. The first two criteria are required, while for the final two only one needs to be true. On its face, the first required criterion does not appear to conflict with smart growth principles, because it requires that the property be adjacent to existing land designated for urban uses and that its shape and extent comprise a logical extension of services. However, the key word is that the adjacent land need only be *designated* for urban uses – the criteria does not require that the adjacent land actually be *developed* with urban uses. This can lead to the acceptance of an application for an expansion of the Urban Policy Area in a location that is isolated

from the existing urban environment, which conflicts with smart growth principles 5 and 7.

The second required criterion of LU-75 specifies that there must be clear evidence that either infrastructure capacity and service availability exists, or can easily be extended to the property. Interpreting smart growth principle 5 loosely, this criterion is consistent with the smart growth principle 5. Strictly interpreting the principle to refer only to buildings, this criterion is then neutral with respect to smart growth principles.

The third and fourth criteria specify that either the Board must find that the existing land within the Urban Policy Area is not sufficient to provide a 15-year supply of growth or that the requested expansion represents a "minor and logical" extension. The phrase "minor and logical" is not defined, leading to the same issue as the lack of definition of "necessary to meet demand levels" in policy LU-66. Reasonable minds may differ on what constitutes a logical or minor expansion, and should those disagreements occur there is no objective factor to consider that would resolve the difference. This criterion is too open to interpretation, and could lead to the acceptance of an application for an expansion of the Urban Policy Area in a location that is isolated from the existing urban environment, which conflicts with smart growth principles 5 and 7. The other option, that a 15-year supply of land is not available, is specific and measurable. However, General Plan policy 76 states that the Urban Policy Area is only intended to accommodate 20 years of growth to begin with, making it clear that the 15-year criterion is not at all restrictive. Long before the existing Urban Policy Area has reached build-out, an applicant could successfully argue that the area needs expansion because it no longer contains a 15-year supply of land. This criterion conflicts with smart growth policies 5 and 7, because it may result in expansion into open space areas long before the land closer to the urbanized environment has been utilized.

The next policy is LU-76, which like LU-75, discusses expansion of the Urban Policy Area. The difference between policy LU-75 and policy LU-76 is that the former outlines the process for accepting private applications for an expansion, while the latter outlines the process for County-initiated expansions. LU-76 specifies that the Urban Policy area is intended to provide a 20-year supply of developable land, that the Urban Policy Area should also include "additional lands to ensure an appropriate supply", and that the County intends to expand the Urban Policy Area a minimum of every 5 years. The policy also outlines the market and infrastructure factors that should be considered when determining how to expand the area. The factors listed are either consistent with or neutral with respect to the smart growth principles. The provision that the Urban Policy Area is intended to accommodate a 20-year supply of developable land doesn't conflict, because it is consistent with the normal timeframes associated with General Plans (Governor's Office of Planning and Research).

Though the 20-year timeframe of the policy is consistent, some other elements of the policy are *not* consistent with smart growth principles. The policy states that the Urban Policy Area should include "additional lands to ensure an adequate supply", which is a broad statement that is not clarified by other elements of the policy. As written, this statement can be understood to modify the previous intention to limit the area to a 20-

year supply, so that far more than 20 years of land could be accommodated. Furthermore, even though it is possible that due to growth pattern changes the Urban Policy Area would not require expansion within a 5-year period, the policy also states that the County intends to expand the Urban Policy Area at least every 5 years. It would be more appropriate for the policy to state that the Urban Policy Area will be updated every 5 years, rather than expanded every 5 years. The critical purpose of the Urban Policy area is to establish a cogent boundary for infrastructure master planning and development. If this boundary is expanded more frequently than necessary or includes too much land, it makes the logical planning and prioritization of growth and infrastructure difficult to achieve. This policy conflicts with smart growth principles 5 and 7.

The policy conflicts with smart growth principles identified above are of great import, because the policies deal with expansion of the Urban Policy Area and amendment of land uses outside the Urban Policy Area. The physical effects of the policy conflicts could result in substantial impacts related to loss of open space and development outside of the urban environment; impacts are *significant*.

MITIGATION MEASURES:

As the point of the No Project Alternative is to re-adopt the existing General Plan, there are no mitigation measures recommended.

AGRICULTURAL LAND USE POLICIES

None of the existing agricultural land use policies of the General Plan have negative effects. All are beneficial policies that stipulate how farmlands are to be protected, used, and encouraged. Impacts are *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: ENVIRONMENTAL HEALTH

Land use patterns in the built environment in Sacramento County tend to favor the car: retail stores are set back behind large parking lots rather than up by the sidewalk, there are no exclusive bus lanes, there are few bicycle lanes on the streets, most sidewalks are not separated from the roadway, most of the more attractive shopping centers are regional rather than local, and there are few examples of “true” mixed-use development (where two separate uses occupy the same space, as in a first story commercial building with second story residential). Research has shown that these car-centric land use patterns have resulted in an increase in air pollution and a decrease in the amount of time people spend walking or biking to their destinations.

In many ways, site plans and subdivision maps are needed in order to determine whether a proposal helps to perpetuate existing negative health patterns, or will promote more healthful patterns. At the General Plan level, subdivision maps and site

plans are not available, so it is difficult to engage in this assessment. However, general conclusions can be drawn from the land use patterns shown on the Land Use Diagram and the General Plan policies.

The Easton area is adjacent to developed areas of Rancho Cordova and Folsom, the project is a mixed use proposal close to mass transportation options, and the project is currently designed to be accessible and pleasant for pedestrians. These factors will provide for new growth while minimizing trip lengths and promoting pedestrian and bicycle usage.

The Cordova Hills project, which is reasonably foreseeable, will have impacts very similar to that expected for the entire Grant Line East New Growth Area. Cordova Hills involves less land, and may internally be designed with smart growth in mind (as part of a university setting). However, it will be located at the fringe of the County, and it is not reasonable to assume that Cordova Hills will be entirely, or even mostly, self-contained. People will live in the Cordova Hills vicinity and commute back into the urban centers, and students of the university may follow the opposite commute. These factors will result in long vehicle trips, many with single-occupancy, and will contribute to adverse air quality impacts.

Aside from the Easton area, the No Project Alternative can be assumed to continue the existing pattern of development in Sacramento County. Without the new and modified policies that support such strategies as developing areas with increased density and redevelopment of aging corridors, it is likely that the land use characteristics of the County which current support auto-centric mobility will remain essentially unchanged. This circumstance will be a detriment to air quality, and a commensurate detriment to respiratory function.

The CEQA Guidelines provide criteria for subjects that affect human health, such as sufficiency of landfill capacity, the proper handling and location of hazardous materials, the generation of traffic, and the emission of air pollutants, but human health is not a stand-alone impact requiring discussion in CEQA documents. Therefore, there are no significance criteria either required or available to apply to this subject. This discussion is included to provide additional information. Reviewers are directed to peruse the smart growth discussion above and the other chapters of this EIR that contain impact discussions with ramifications for human health (e.g. Air Quality).

IMPACT: DIVISION OR DISRUPTION OF ESTABLISHED COMMUNITY

The division or disruption of an established community is an impact considered by CEQA. Case law has established that a project must create physical barriers within the established community in order to be considered under this impact category. An example of a qualifying project is a new highway through an existing town. There are no qualifying elements in the existing General Plan. Therefore, impacts are *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: CONVERSION OF OR CONFLICT WITH FARMLAND

Plate LA-3 depicts all of the areas designated as State Inventory farmlands within Sacramento County. This exhibit shows that most of the designated farmland areas are within the southern and eastern parts of the County, with very little inside the urban core north of the American River. As part of the buildout of the 1993 General Plan, it is reasonable to assume that all of the parcels identified by the Project as residential infill will develop. It is also assumed that vacant parcels within the identified commercial corridors will develop, even though the commercial corridors may not intensify in uses or be restructured to include mixed use. Other farmlands will be affected by the buildout of the planned communities – the Florin Vineyard Gap, North Vineyard Station, and Vineyard Springs communities. There are also designated farmlands within the Cordova Hills project area, a reasonably foreseeable project.

Most of the designated farmlands that will be affected are Farmlands of Local Importance, which is a farmland type that isn't protected either by the CEQA definitions of significance or by existing General Plan policies. However, there are some large areas designated as Farmland of Statewide Importance, and there are also areas of Prime or Unique Farmland. The first two farmland types are protected by both the CEQA Guidelines and existing General Plan policy, and the third is protected by the CEQA Guidelines. Table LA-10 shows the amount of protected farmland within the existing master planning areas and within the infill areas.

Table LA-10 No Project Impacts to Protected Farmlands

Farmland Type	Location	Acreage
Prime	Florin Vineyard Gap	8
	North Vineyard Station	12
	Vineyard Springs	6
	Infill Parcels	27
	TOTAL	*53*
Statewide Importance	Florin Vineyard Gap	264
	North Vineyard Station	40
	Infill Parcels	195
	TOTAL	*499*
Unique	Florin Vineyard Gap	122
	Infill Parcels	58
	Cordova Hills	8
	TOTAL	*188*

As shown, the No Project Alternative could result in the loss of up to 53 acres of Prime Farmland, 499 acres of Farmland of Statewide Importance, and 188 acres of Unique Farmland. This exceeds the 50-acre threshold set forth in the General Plan, and is a *significant* impact.

MITIGATION MEASURES:

Existing General Plan policy requires mitigation for loss of agricultural lands.

IMPACT: DISPLACEMENT OF HOUSING

The No Project Alternative would not change the Transportation Plan, so the only potential impact would be to areas adjacent to roadways that have not been constructed to their ultimate width. At this level of the planning process, it is not clear whether there may be a need to acquire property as part of buildout of roadways shown on the Transportation Plan. Properties are acquired when the proposed road improvement would encroach within the setbacks required by the zoning of a given parcel. There is no construction-level information available for these future roadways that would allow an analysis of this detail. However, it is reasonable to assume that some displacement of housing may occur, based on the fact that many of the residential corridors along major roadways are built-out and on the fact that past roadway widenings have required some property acquisition.

Although some housing may be displaced, the development of infill parcels and undeveloped areas within existing master planned communities will more than replace this lost stock. The Project will not require the construction of unplanned replacement housing elsewhere as a result of the displacement of existing housing; impacts are *less than significant.*

MITIGATION MEASURES:

None recommended.

IMPACT: AIRPORT SAFETY ZONE INCOMPATIBILITY

As discussed, most of the land within the 1993 General Plan growth areas has either already been developed, or has already been approved for development through a Specific Plan (or similar). As discussed in the analysis for the Project, none of the parcels identified as vacant or underutilized, which are the parcels that would develop under the No Project Alternative, are within an airport safety zone. Only one of the planned communities is within an airport safety zone; a portion of the Elverta Specific Plan is within the Overflight Zone of McClellan Airpark. The impacts of this were identified and discussed within the Environmental Impact Report for the Elverta Specific Plan, which concluded that the proposed land uses appeared to be compatible with the restrictions of the existing CLUP for the McClellan Airpark. The No Project Alternative would not expose people residing or working in the area to a safety hazard related to airports. Airport safety impacts are *less than significant*.

MITIGATION MEASURES:

None recommended.

ALTERNATIVE 1: REMOVE GRANT LINE EAST

IMPACT: LAND USE PLAN COMPATIBILITY

The impacts of the Remove Grant Line East Alternative would be the same as that described for the Project, except the section on Grant Line East would not apply. Land-use-related environmental impacts in areas where the proposed Alternative growth areas and planning areas interface with other planning areas are *less than significant*.

MITIGATION MEASURES:

None recommended.

SMART GROWTH PRINCIPLES

The Project impact discussion of smart growth principles determined that the Grant Line East new growth area would result in significant impacts, and that the inclusion of it could divert infill development and Commercial Corridor development interest (refer to the "Land Use Plan Compatibility", "Smart Growth Principles" section of the Project discussion). The section also notes that there are no mitigation measures available to reduce the impact of including Grant Line East – the only way to reduce the impact is to eliminate the growth area. The Remove Grant Line East Alternative eliminates that unmitigable impact, leaving the rest of the Project intact. The remaining impacts related to smart growth would be as described in the Project discussion of impacts. The Jackson Highway Corridor conflicts with smart growth principles significantly, but the introduction of a policy requiring logical phasing of development in the area would reduce the impact to less-than-significant levels. The other aspects of the Project are consistent with smart growth principles. With Mitigation Measure LU-1, the Remove Grant Line East Alternative land uses result in *less than significant* impacts related to smart growth principles.

MITIGATION MEASURES:

See LU-1.

IMPACT: LAND USE POLICY COMPATIBILITY

Although as part of this Alternative all references to Grant Line East would be removed from General Plan policies, no other policy differences exist between the proposed Project and the Remove Grant Line East Alternative. The same discussions provided in the analysis of Project land use policy compatibility applies to this Alternative. With

Mitigation Measures LU-3 through LU-6, the Remove Grant Line East Alternative land use policies result in *less than significant* impacts related to smart growth principles.

MITIGATION MEASURES:

See LU-3 through LU-6.

IMPACT: ENVIRONMENTAL HEALTH

Land use patterns in the built environment in Sacramento County tend to favor the car: retail stores are set back behind large parking lots rather than up by the sidewalk, there are no exclusive bus lanes, there are few bicycle lanes on the streets, most sidewalks are not separated from the roadway, most of the more attractive shopping centers are regional rather than local, and there are few examples of "true" mixed-use development (where two separate uses occupy the same space, as in a first story commercial building with second story residential). Research has shown that these car-centric land use patterns have resulted in an increase in air pollution and a decrease in the amount of time people spend walking or biking to their destinations.

As discussed in the section on Project impacts to environmental health, in many ways, determining whether a project may help or hinder environmental health requires site plans and subdivision maps, which aren't available at the General Plan level. Therefore, it can't be determined whether development pursuant to this Alternative will promote higher physical activity levels. However, the analysis of the Project did conclude that the size and location of the Grant Line East Growth Area would result in long vehicle trips for work commutes, which would be a detriment to air quality and thus to respiratory function. The elimination of Grant Line East would remove the Growth Area farthest from the existing urbanized environment, which would reduce this impact. Furthermore, removing the Grant Line East area may stimulate more dense development within the Jackson Highway Corridor and will detract less from the buildout of the aspects of the project which are more consistent with smart growth (the commercial corridors, Easton, and West of Watt). Therefore, this Alternative would reduce impacts to environmental health, as compared to the Project. As discussed in previous sections, human health is not a stand-alone impact requiring discussion, so there are no significance criteria to apply. Reviewers are directed to peruse the smart growth discussion above and the other chapters of this EIR that contain impact discussions with ramifications for human health (e.g. Air Quality).

MITIGATION MEASURES:

None recommended.

IMPACT: DIVISION OR DISRUPTION OF ESTABLISHED COMMUNITY

The division or disruption of an established community is an impact considered by CEQA. Case law has established that a project must create physical barriers within the established community in order to be considered under this impact category. An example of a qualifying project is a new highway through an existing town. The only

qualifying elements included in the Project are new roadways, and all of these new roadways either reflect existing land use proposals (e.g. Easton or are through sparsely populated areas. The Remove Grant Line East Alternative does not include changes to the Project Transportation Plan, and therefore the same discussion and conclusion provided in the Project analysis applies to this Alternative. The Alternative does not include any elements that would result in significant division or disruption of an established community. Therefore, impacts are *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: CONVERSION OF OR CONFLICT WITH FARMLAND

The impacts of developing with the Grant Line East new growth area are discussed for the Project in a prior section of this chapter. The analysis concludes that under existing General Plan policy, and according to the CEQA Guidelines for significance, the Grant Line East area does not result in significant loss of farmland. However, under proposed General Plan policy, which extends protection to a broader range of farmland types, impacts are significant. Approval of the Remove Grant Line East Alternative would eliminate this significant impact, which consists of a loss of 717 acres of Farmland of Local Importance and 9 acres of Unique Farmland. However, other aspects of the Project and this Alternative (such as the Jackson Highway Corridor) will still cause a substantial loss of protected farmland. Even without the Grant Line East new growth area, cumulative impacts to protected farmlands amount to 190 acres of Prime Farmland, 1,605 acres of Farmland of Statewide Importance, 222 acres of Unique Farmland, and 5,902 acres of Farmland of Local Importance, for a total of 3,824 acres of designated farmlands, and this impact is *significant*. The same mitigation applied to the Project would apply to this Alternative, but the amount of loss is so substantial that the impact would remain significant.

Table LA-11 Alternative 1 Farmland Impacts

Farmland Type	Acreage
Prime Farmland	190
Farmland of Statewide Importance	1,605
Unique Farmland	222
Farmland of Local Importance	5,902

MITIGATION MEASURES:

See LU-7.

IMPACT: DISPLACEMENT OF HOUSING

The Remove Grant Line East Alternative does not include any changes to the Transportation Plan, so the impacts of this Alternative are identical to those of the

Project. Refer to the Project impact section on displacement of housing, in a previous section; impacts are *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: AIRPORT SAFETY ZONE INCOMPATIBILITY

This alternative simply removes the Grant Line East New Growth Area, which isn't located within an airport safety contour. The impacts of the Remove Grant Line East Alternative relative to airport safety are identical to the impacts of the Project – readers should refer to the Project discussion for a detailed analysis. The Remove Grant Line East Alternative would not expose people residing or working in the area to a safety hazard related to airports. Airport safety impacts are *less than significant*.

MITIGATION MEASURES:

None recommended.

ALTERNATIVE 2: FOCUSED GROWTH

IMPACT: LAND USE PLAN COMPATIBILITY

The impacts of the Focused Growth Alternative would be the same as that described for the Project, except the section on Grant Line East and the eastern portion of the Jackson Highway Corridor would not apply. Land-use-related environmental impacts in areas where the proposed Alternative growth areas and planning areas interface with other planning areas are *less than significant*.

MITIGATION MEASURES:

None recommended.

SMART GROWTH PRINCIPLES

The Project impact discussion of smart growth principles determined that the Grant Line East new growth area would result in significant impacts, and that the inclusion of it could divert infill development and Commercial Corridor development interest (refer to the "Land Use Plan Compatibility", "Smart Growth Principles" section of the Project discussion). The section also notes that there are no mitigation measures available to reduce the impact of including Grant Line East – the only way to reduce the impact is to eliminate the growth area. The Project discussion also concludes that the Jackson Highway Corridor includes far more land than necessary to serve forecasted demand levels. The analysis concludes that because the growth area is in a more logical location, including mitigation that requires logical phasing could reduce this impact to

less-than-significant levels. The Focused Growth Alternative eliminates the Grant Line East area, and reduces the size of the Jackson Highway Corridor. This Alternative reduces the New Growth Areas to a size that is sufficient to accommodate demand without providing significant excess acreage. The effect is to eliminate a significant, unmitigable impact, and to eliminate the need for mitigation related to the remaining area. As discussed in the Project impacts section, the other aspects retained in this Alternative (infill, Commercial Corridors, West of Watt, and Easton) are consistent with smart growth principles. Impacts are *less than significant*, without the need for mitigation.

MITIGATION MEASURES:

None recommended.

IMPACT: LAND USE POLICY COMPATIBILITY

Although as part of this Alternative all references to Grant Line East and to the larger Jackson Highway Corridor would be removed from General Plan policies, no other policy differences exist between the proposed Project and the Focused Growth Alternative. The same discussions provided in the analysis of Project land use policy compatibility applies to this Alternative. With Mitigation Measures LU-3 through LU-6, the Focused Growth Alternative land use policies result in *less than significant* impacts related to smart growth principles.

MITIGATION MEASURES:

See LU-3 through LU-6.

IMPACT: ENVIRONMENTAL HEALTH

Land use patterns in the built environment in Sacramento County tend to favor the car: retail stores are set back behind large parking lots rather than up by the sidewalk, there are no exclusive bus lanes, there are few bicycle lanes on the streets, most sidewalks are not separated from the roadway, most of the more attractive shopping centers are regional rather than local, and there are few examples of “true” mixed-use development (where two separate uses occupy the same space, as in a first story commercial building with second story residential). Research has shown that these car-centric land use patterns have resulted in an increase in air pollution and a decrease in the amount of time people spend walking or biking to their destinations.

As discussed in the section on Project impacts to environmental health, in many ways, determining whether a project may help or hinder environmental health requires site plans and subdivision maps, which aren’t available at the General Plan level. Therefore, it can’t be determined whether development pursuant to this Alternative will promote higher physical activity levels. However, the analysis of the Project did conclude that the size and location of the Grant Line East and Jackson Highway Corridor Growth Areas would result in long vehicle trips for work commutes, which would be a detriment to air quality and thus to respiratory function. The elimination of

Grant Line East and the reduction of the easternmost portion of the Jackson Highway Corridor would remove those areas that are farthest from the existing urbanized area. Furthermore, shrinking the available area for new growth is expected to stimulate more compact development and will detract less from the buildout of the aspects of the project which are most consistent with smart growth (the commercial corridors, Easton, and West of Watt). Therefore, this Alternative would reduce impacts to environmental health, as compared to the Project. As discussed in previous sections, human health is not a stand-alone impact requiring discussion, so there are no significance criteria to apply. Reviewers are directed to peruse the smart growth discussion above and the other chapters of this EIR that contain impact discussions with ramifications for human health (e.g. Air Quality).

IMPACT: DIVISION OR DISRUPTION OF ESTABLISHED COMMUNITY

The division or disruption of an established community is an impact considered by CEQA. Case law has established that a project must create physical barriers within the established community in order to be considered under this impact category. An example of a qualifying project is a new highway through an existing town. The only qualifying elements included in the Project are new roadways, and all of these new roadways either reflect existing land use proposals (e.g. Easton or are through sparsely populated areas. The Focused Growth Alternative does not include changes to the Project Transportation Plan, and therefore the same discussion and conclusion provided in the Project analysis applies to this Alternative. The Alternative does not include any elements that would result in significant division or disruption of an established community. Therefore, impacts are *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: CONVERSION OF OR CONFLICT WITH FARMLAND

The Focused Growth Alternative would, like the Remove Grant Line East Alternative, prevent the loss of 717 acres of Farmland of Local Importance and 9 acres of Unique Farmland associated with the Grant Line East new growth area. This Alternative would also shrink the footprint of the Jackson Highway Corridor, eliminating some of the impacts to farmlands in this growth area. However, most of the designated farmlands in the Jackson Highway Corridor are on the western side of the new growth area – the area that will remain within the Focused Growth Alternative. The Focused Growth Alternative would only remove 402 acres of protected farmland from the footprint of the Jackson Highway Corridor, reducing impacts in this Growth Area to 134 acres of Prime Farmland, 1,234 acres of Farmland of Statewide Importance, eliminating the impact to Unique Farmland, and 2,084 acres of Farmland of Local Importance. Including all of the other areas affected by the Focused Growth Alternative, the total loss of protected farmlands is 214 acres of Prime Farmland, 1,733 acres of Farmland of Statewide Importance, 180 acres of Unique Farmland, and 5,612 acres of Farmland of Local Importance (Table LA-12). The Focused Growth Alternative would result in *significant* impacts related to loss of farmlands. The same mitigation applied to the Project would

apply to this Alternative, but the amount of loss is so substantial that the impact would remain significant.

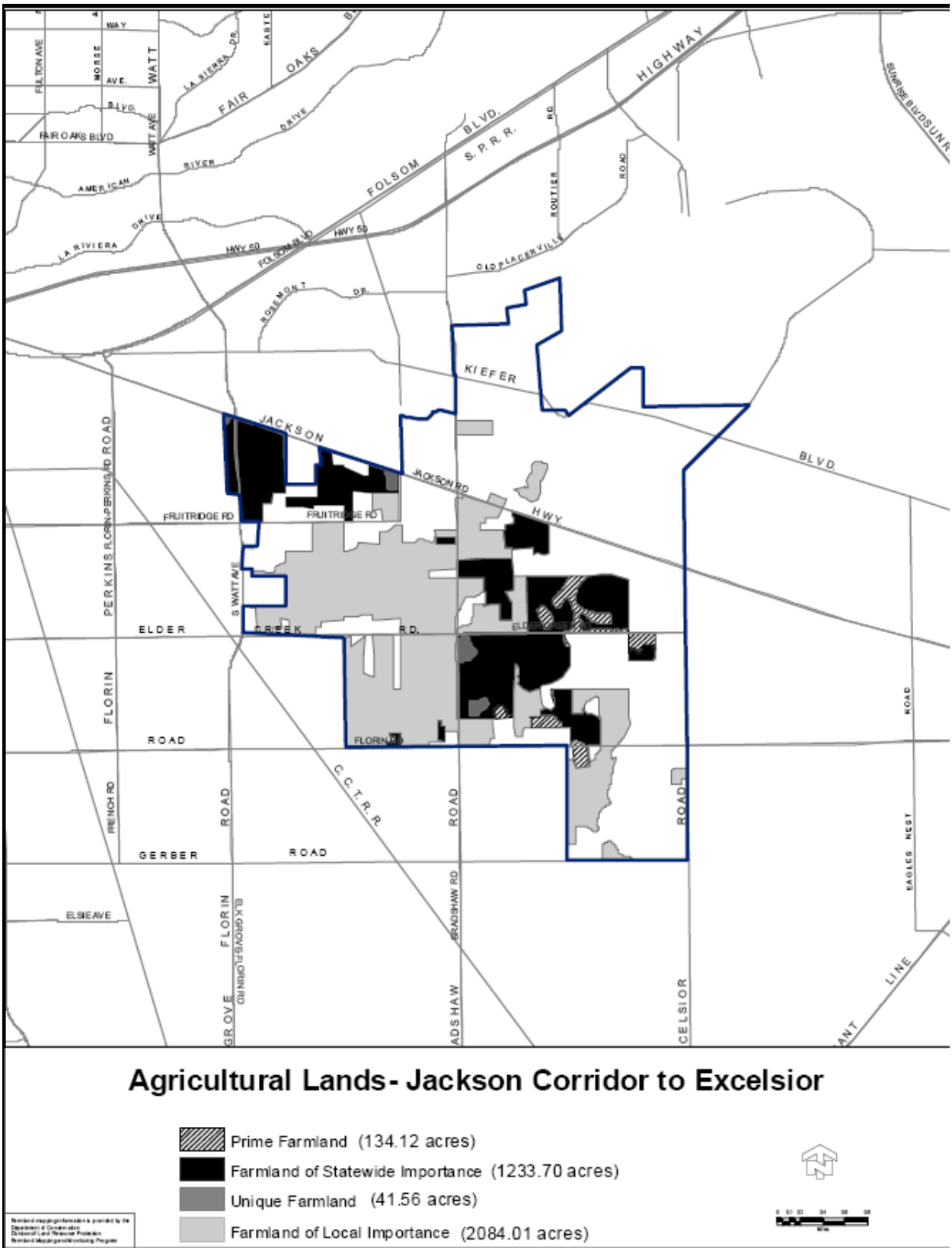
MITIGATION MEASURES:

See LU-7.

Table LA-12 Focused Growth Alternative Farmland Impacts

Farmland Type	Acreage
Prime Farmland	187
Farmland of Statewide Importance	1,538
Unique Farmland	180
Farmland of Local Importance	5,612

Plate LA -13 Focused Growth Alternative Farmland Exhibit



IMPACT: DISPLACEMENT OF HOUSING

The Focused Growth Alternative includes the same Transportation Plan as the Project, so the impacts of this Alternative are identical to those of the Project. Refer to the Project impact section on displacement of housing, in a previous section; impacts are *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: AIRPORT SAFETY ZONE INCOMPATIBILITY

The Focused Growth Alternative removes Grant Line East and shrinks the Jackson Highway Corridor area to end at Excelsior Road. The Grant Line East area is not within an identified airport safety zone. The larger Jackson Highway Corridor proposed by the Project contains approximately 3,200 acres within the Overflight Zone of Mather Airport, while the smaller Jackson Highway Corridor proposed by the Focused Growth Alternative contains approximately 2,500 acres within the Overflight Zone. As stated in the Project analysis, some uses would not be permissible within this Zone. Compliance with the CLUP in effect at the time individual projects are proposed will ensure that impacts are *less than significant*.

With respect to airport compatibility, all other impacts of the Focused Growth Alternative are identical to the impacts discussed related to the Project – readers should refer to that section for detailed discussion. The Focused Growth Alternative would not expose people residing or working in the area to a safety hazard related to airports. Airport safety impacts are *less than significant*.

MITIGATION MEASURES:

None recommended.

ALTERNATIVE 3: MIXED USE

IMPACT: LAND USE PLAN COMPATIBILITY

Mixed Use Alternative impacts related to the Easton and West of Watt New Growth Areas as well as the Commercial Corridors are the same as those described in the Project analysis. The rest of the changes described will only effect zoning, not the overall designations of the General Plan Land Use Diagram. The existing Land Use Diagram has been in effect for many years and is compatible with adjacent jurisdictions. Land-use-related environmental impacts in areas where the proposed Alternative growth areas and planning areas interface with other planning areas are *less than significant*.

MITIGATION MEASURES:

None recommended.

SMART GROWTH PRINCIPLES

The Mixed Use Alternative retains the Commercial Corridors, the Easton growth area, and the West of Watt Growth area, all of which were determined to be consistent with smart growth principles (see the "Land Use Plan Compatibility", "Smart Growth Principles" section of the Project discussion). To reiterate, the remaining strategies of this Alternative are to increase multiple-family zoning densities from RD-20 to RD-30, to increase the stock of accessory dwellings, and to facilitate the rezone of some properties from RD-1 through RD-3 to a minimum of RD-5. The Mixed Use Alternative is highly consistent with smart growth principles. The project directs all development toward the urban core, which will increase densities and support alternative transportation (principle 1); includes the Commercial Corridors strategy, which involves the mixing of land uses (principle 2); directs most growth into areas that are already built up, resulting in more compact growth (principle 3); promotes growth through development of multiple-family housing, granny unit housing, and single-family housing, which provides a range of housing opportunities and choices (principle 4); directs all growth toward existing urban areas (principle 5); and avoids any development within the large open space, farmland, and critical environmental areas of the county (principle 7). Principle 6 is not listed, because determining consistency with this principle would require detailed design plans that are not available at this stage. Impacts are *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: LAND USE POLICY COMPATIBILITY

For this Alternative, all references to the Grant Line East and Jackson Highway Corridor New Growth Areas would be removed from General Plan policies, and from the Land Use Element narratives. The Mixed Use Alternative would also need additional new policies that would support the development patterns envisioned. The proposed wording of these new policies is as follows (the numbering is "XX" in all cases – they would be given actual numbers if this Alternative were adopted):

LU-XX	To provide diversity of housing and to make provision for inter-generational housing arrangements, the County supports the development of residential accessory dwellings.
Implementation Measure XX	Amend the Sacramento County Zoning Code to allow residential accessory dwellings on lots of 5,000 square feet or greater, and establish appropriate setback provisions to facilitate this standard.
LU-XX	Provide for the upzoning of existing parcels zoned RD-20 to densities

	of RD-30 or greater, provided it will not result in significant health and safety impacts
Implementation Measure XX	Monitor the location of all RD-20 parcels within the County, and establish an incentive program to support the upzoning of these parcels to higher densities.
LU-XX	

A review of the proposed General Plan policies also identified several policies that should be amended in order to properly support the proposed Alternative. These are shown below, with the alterations in **bold**:

LU-5 (Project)	The County shall give priority to residential development on vacant or underutilized sites within existing urban areas that have infrastructure capacity available.
LU-5 (Alternative)	The County shall give priority to residential development on vacant or underutilized sites within existing urban areas, **provided it will not result in significant health and safety impacts**.
LU-6 (Project)	All residential projects involving ten or more units, excluding remainder lots and Lot A's, shall not have densities less than 75% of zoned maximums, unless physical or environmental constraints make achieving the minimum densities impossible.
LU-6 (Alternative)	All residential projects involving ten or more units, excluding remainder lots and Lot A's, shall not have densities less than **100%** of zoned maximums, unless physical or environmental constraints make achieving the minimum densities impossible.
LU-10 (Project)	Consider private amendment applications that seek to increase densities within planned communities, including in pending and approved Specific Plan areas, when the project area is appropriately designed and sited.
LU-10 (Alternative)	**Support** private amendment applications that seek to increase densities within planned communities, including in pending and approved Specific Plan areas, **when there is adequate planned or proposed infrastructure to support it**.

Proposed Policy LU-5, as written for the Project, stipulates that priority will only be given to vacant or underutilized sites that have existing infrastructure capacity. However, one of the limits on beneficial infill is that existing urban environments have existing capacity constraints. These constraints can be overcome, but it requires some technical studies and physical improvements to infrastructure (such as upsizing a sewer line, or installing a traffic signal). A developer may choose to pursue the project is a less urbanized area where there is more vacant land available to work with, and the existing capacity is not constrained. In order to provide appropriate incentive to developers, policies promoting

infill should not require that capacity exist, but should instead require that capacity can be provided or if not, that the lack of this capacity will not result in significant health and safety impacts. As part of this Alternative, proposed Policy LU-5 should be changed as shown above.

Proposed Policy LU-6 includes the requirement that projects shall not have densities less than 75% of zoned maximums. This policy is intended to prevent the underutilization of land, and is sufficient for the development envisioned as part of the Project. However, this is not robust enough for the Mixed Use Alternative, so as part of the Alternative it is recommended that the policy requires utilization of 100% of the zoned maximum, unless infeasible.

Proposed Policy LU-10 suggests the consideration of requests to increase densities within planned communities where it is appropriately sited and designed. One of the growth strategies of the Mixed Use Alternative is to increase densities in some areas of the planned communities, so stronger language is required. The word "consider" should be changed to "support", and in lieu of the less defined requirement that the design be "appropriate", the policy should specify that there is adequate planned or proposed infrastructure to support the project.

In the discussion of the proposed Project policies, several were identified that conflict with smart growth principles. Project mitigation recommends the amendment of these policies to achieve greater consistency. Rather than include that mitigation again here, the Mixed Use Alternative simply incorporates those same changes as part of the actual Alternative.

SMART GROWTH PRINCIPLES

In the analysis of the Project, several policies were identified that have the potential to conflict with smart growth strategies. However, the Mixed Use Alternative includes modified versions of those policies that do not conflict. Therefore, all of the Land Use Element policies of the Mixed Use Alternative are consistent with smart growth principles, and impacts are *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: ENVIRONMENTAL HEALTH

Land use patterns in the built environment in Sacramento County tend to favor the car: retail stores are set back behind large parking lots rather than up by the sidewalk, there are no exclusive bus lanes, there are few bicycle lanes on the streets, most sidewalks are not separated from the roadway, most of the more attractive shopping centers are regional rather than local, and there are few examples of "true" mixed-use development (where two separate uses occupy the same space, as in a first story commercial building with second story residential). Research has shown that these car-centric land

use patterns have resulted in an increase in air pollution and a decrease in the amount of time people spend walking or biking to their destinations.

As discussed in the section on Project impacts to environmental health, in many ways, determining whether a project may help or hinder environmental health requires site plans and subdivision maps, which aren't available at the General Plan level. Therefore, it can't be determined whether development pursuant to this Alternative will promote higher physical activity levels. However, out of all of the Alternatives and the Project, the Mixed Use Alternative is the most consistent with smart growth. Directing all new growth into the existing urban environment will result in denser communities which are better able to support quality transit services and will direct development funds and attentions to the improvement of existing pedestrian-, transit-, and bicycle-supportive infrastructure. This will in turn promote less reliance on personal vehicles for travel, and will improve both air quality and the average fitness level of County residents. Overall, this Alternative will have a beneficial impact on environmental health.

IMPACT: DIVISION OR DISRUPTION OF ESTABLISHED COMMUNITY

The division or disruption of an established community is an impact considered by CEQA. Case law has established that a project must create physical barriers within the established community in order to be considered under this impact category. An example of a qualifying project is a new highway through an existing town. The only qualifying elements included in the Project are new roadways, and all of these new roadways either reflect existing land use proposals (e.g. Easton) or are through sparsely populated areas. Impacts are *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: CONVERSION OF OR CONFLICT WITH FARMLAND

The Mixed Use Alternative includes the West of Watt and Easton New Growth Areas and the commercial corridors of the Project, plus assumes market-rate upzoning, an increase in the amount of accessory dwellings, and multiple family upzoning from RD-20 to RD-30. West of Watt and Easton New Growth Areas do not abut or encompass agricultural lands, and neither do most of the lands identified in the General Plan as vacant or underutilized. Some of the Commercial Corridors encompass and/or abut farmlands included in the State Inventory. Plate LA-9 shows the distribution of these lands within the Commercial Corridors. The impacts of the Commercial Corridors on agricultural land is already discussed for the Project, and this same discussion applies here. Approximately 195 acres of Farmland of Local Importance and 27 acres of Prime Farmland is distributed between the proposed commercial corridors located along Greenback Lane, Stockton Boulevard and Florin Road. Cumulatively the loss of farmland that will result from infill in these corridors is *significant*.

For the remaining urban areas where the market-rate upzones, infill, and accessory dwellings would develop, Plate LA-3 depicts all of the areas designated as State Inventory farmlands within Sacramento County, and shows that there are very few farmland areas within the urban core. Most of the farmland areas are located in the eastern and southern portions of Sacramento County, and within the northwestern corner of the County in the Rio Linda-Elverta area, where the existing zoning tends to be agricultural (AG) or agricultural-residential (AR). The only farmland likely to be developed as a result of this strategy is approximately 58 acres of Unique Farmland.

The total loss of farmland in this Alternative exceeds the 50-acre threshold, so impacts are significant. However, existing policies require mitigation for this loss, and Mitigation Measure LU-7 will require a 1:1 ratio for mitigation lands. Unlike the other Alternatives and the Project, the amount of farmland lost through the Mixed Use Alternative is low, and will all take place in smaller parcels of farmland that are already surrounded by development (which limits agricultural production). Therefore, compliance with proposed policy for farmland mitigation will render impacts *less than significant*.

Table LA-13 Mixed Use Alternative Farmland Impacts

Farmland Type	Acreage
Prime Farmland	27
Farmland of Statewide Importance	195
Unique Farmland	58

MITIGATION MEASURES:

See LU-7.

IMPACT: DISPLACEMENT OF HOUSING

The proposed Project Transportation Plan includes new roadways and some upgrades of roadway designations, which are discussed in the Traffic and Circulation chapter. The new roadways are concentrated in areas that are sparsely populated, and where existing land use proposals are in process (e.g. Easton), so none of these are expected to require displacement of existing housing. However, many of the roadways to be redesignated are in existing urban environments with constrained right-of-ways. Widening these existing roadways may result in some displacement of housing, though how much can't be quantified at this stage of the process. This is partly because many times the necessary right-of-way for streets is not acquired through property purchases, but instead is granted to the County as part of individual development applications. As parcels of land along the designated roadways become the subject of requests for lot splits or similar actions, the County requires the granting of the appropriate right-of-way in return. Also, the houses themselves may be set back far enough from the street that the result is loss of front yard rather than the loss of the entire house.

In addition to the changes proposed by the Project, the Mixed Use Alternative includes some additional changes to the existing Transportation Plan. These changes are

designed to support the increased densities in the urban environment by improving mass transit options, such as by the inclusion of additional exclusive bus rapid-transit lanes. However, none of these changes involve increasing ultimate roadway width, only changes the transit uses of those roadways. Therefore, the Mixed Use Alternative changes to the Transportation Plan have no impacts related to displacement of housing. The Project analysis of this impact is sufficient to describe the impacts of this Alternative. As discussed in the Project analysis, the amount of housing that may be displaced by the Project is far outweighed by the amount of housing projected to be accommodated by implementation of the Project. The Project will not require the construction of unplanned replacement housing elsewhere as a result of the displacement of existing housing; impacts are *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: AIRPORT SAFETY ZONE INCOMPATIBILITY

The analysis of West of Watt and Commercial Corridor impacts provided for the Project related to airport safety is applicable to this alternative. As discussed, McClellan Airpark safety zones overlie the West of Watt new growth area, the Watt Avenue North Commercial Corridor, Watt Avenue Central Commercial Corridor, Auburn Boulevard Central Commercial Corridor, and the Fulton Avenue Commercial Corridor (Plate LA-12). In the south area, the Franklin Boulevard Commercial Corridor is within a safety zone of the Sacramento Executive Airport.

In addition to Project elements that are carried forward into this Alternative, the Mixed Use Alternative assumes that RD-20 parcels will be upzoned to RD-30, and that a proportion of parcels will be the subject of market-based rezoning and accessory dwellings. There are many areas within the urbanized and urbanizing County that are outside any identified airport safety contours where these strategies can be implemented. Though it is probable that some future projects will be within a safety contour, it cannot be determined at this time where those will take place, or how many such projects will be proposed. Any future projects proposed within a safety contour will be subject to the restrictions of the CLUPS in effect at the time. Compliance with the provisions of the CLUPs will ensure that no individuals will be residing or working in an area of airport safety hazard, and impacts are *less than significant*.

MITIGATION MEASURES:

None recommended.

4 PUBLIC SERVICES

INTRODUCTION

This chapter describes the existing public services and facilities in the Sacramento County unincorporated area and evaluates the effects associated with the proposed General Plan Update. This analysis addresses County-wide and regional impacts on public facilities and services and identifies mitigation measures to lessen those impacts where feasible. The services evaluated in this chapter include:

- Solid Waste
- Public Schools
- Libraries
- Law Enforcement
- Fire Protection and Emergency Services
- Energy Services
- Parks and Recreation

Wastewater (sewer), water supply, and transit services are addressed, respectively, in the Sewer Service, Water Supply, and Traffic and Circulation chapters of this EIR.

ENVIRONMENTAL SETTING

Sacramento County encompasses a 775 square mile area with a population of 1,406,804 as of January, 2007. Sacramento County has both urban and rural components. There are both independent and County agencies that provide services in the County.

SOLID WASTE

The Sacramento County Department of Waste Management and Recycling provides solid waste services to the unincorporated portions of Sacramento County.

Sacramento County owns and operates the Kiefer Landfill, located at Kiefer Boulevard and Grant Line Road. Kiefer Landfill is a total of 1,084 acres in size, with a permitted disposal area of 660 acres. Kiefer Landfill is the primary solid waste disposal facility in the County. Kiefer Landfill is classified as a Class III municipal solid waste landfill facility and is permitted to accept general residential, commercial, and industrial refuse

for disposal, including municipal solid waste, construction and demolition debris, green materials, agricultural debris, dead animals, and other designated debris. The Kiefer Landfill receives over 700,000 tons of waste per year. Kiefer Landfill produces enough renewable energy methane gas to power 9,000 homes.

Sacramento County also owns and operates the North Area Recovery Station (NARS) located in North Highlands. The NARS is 23 acres in size and accepts waste from the general public, businesses, and private waste haulers.

There are various other transfer stations and small privately owned landfills throughout Sacramento County, located mainly within the boundaries of the City of Sacramento.

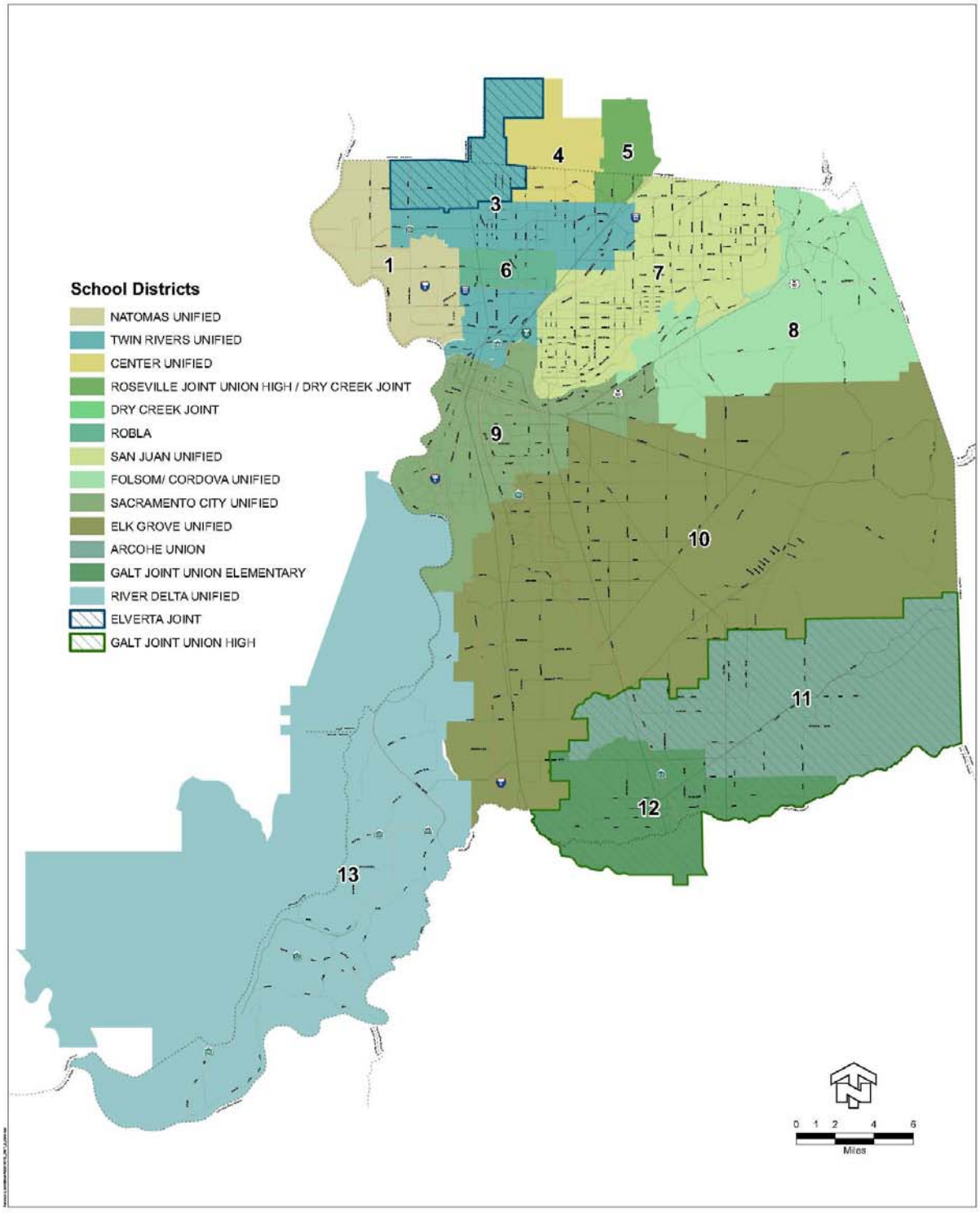
PUBLIC SCHOOLS

In Sacramento County, there are 15 public school districts providing K – 12 education. Those school districts are listed below:

- Archoe Union (K – 12)
- Center Unified (K – 12)
- Dry Creek Joint Elementary (K – 8)
- Elk Grove Unified (K – 12)
- Elverta Joint (K – 8)
- Folsom-Cordova Unified (K – 12)
- Galt Joint Union (K – 8)
- Galt Joint Union High (9 – 12)
- Natomas Unified (K – 12)
- River Delta Unified (K – 12)
- Robla (K – 6)
- Roseville Joint Union High (9 – 12)
- Sacramento City Unified (K – 12)
- San Juan Unified (K – 12)
- Twin Rivers Unified (K – 12)

Dry Creek Joint Elementary and Roseville Joint Union High School Districts are both governed by the Placer County Office of Education. They have been included in the list above because these two districts have a few schools located within the boundaries of the County of Sacramento. Plate PS-1 is a map of the school district boundaries in Sacramento County.

Plate PS-1 Public Schools in Sacramento County



PLANNING & COMMUNITY DEVELOPMENT DEPARTMENT

School Districts

Los Rios Community College District

The Los Rios Community College District is a two-year public college district that covers a 2,400 square mile service area, and includes Sacramento and El Dorado counties, and parts of Yolo, Placer, and Solano counties. The District services approximately 80,000 students. The colleges include American River, Cosumnes River, Folsom Lake, and Sacramento City Colleges. There are also satellite campuses located in Davis, West Sacramento, downtown Sacramento, Natomas, and Rancho Cordova.

Libraries

The Sacramento Public Library system provides services to the residents of this County – it is the fifth largest library in California in terms of population served and the sixth largest library in terms of materials held.

The Sacramento Public Library system is comprised of interdependent branches providing services to all residents. Branches are grouped by services, geography, and usage patterns to provide efficient and economical services to the residents of the County. The Sacramento Public Library is a joint agreement agency between the County of Sacramento and the cities of Sacramento, Citrus Heights, Elk Grove, Galt, Isleton, and Rancho Cordova (Sacramento Public Library website, 2007).

Law Enforcement

The Sacramento County Sheriff's Department provides specialized law enforcement services to both the incorporated and unincorporated areas and local police protection to the unincorporated area and City of Rancho Cordova. Specialized law enforcement includes: providing court security services, operating a system of jails for pre-trial and sentenced inmates, and operating a training complex. Local police protection includes: response to calls and trouble spots, investigations, surveillance, and routine patrolling. Services are generally provided through patrol units consisting of a patrol car and deputy sheriff.

The Sheriff's Department has patrol districts within the unincorporated areas and the City of Rancho Cordova. Rancho Cordova is the only city with a contract with the Sheriff's Department for local police protection services. The Airport Division of the Sheriff's Department has a contract with the Sacramento County Airport System to provide law enforcement services to the Sacramento International Airport.

The Sheriff's Department operates several facilities, including a headquarters building, main jail, the Rio Cosumnes Correctional Center (RCCC), five station houses, ten community service centers, a training academy, firearms training facility, marine enforcement detail, and an air support bureau.

The main jail is located in downtown Sacramento and is designed to primarily house pre-trial inmates. The Rio Cosumnes Correctional Center (RCCC) is located south of the City of Elk Grove and its primary function is to house male and female inmates

sentenced to County Jail from the Sacramento County courts. An increasing percentage of inmates housed at RCCC are pre-sentenced inmates from the main jail. In addition, RCCC houses inmates en route to other jurisdictions, federal inmates and serves as a holding facility for inmates sentenced to state prison. RCCC is classified as a Type II facility, accepting newly arrested persons booked by law enforcement agencies in the south part of the County.

FIRE PROTECTION AND EMERGENCY SERVICES

Fire service is provided in the County of Sacramento by the Cities of Sacramento and Folsom, and eleven fire districts. The Natomas Fire Protection District is governed by the Sacramento County Board of Supervisors. The remaining districts (including the Elk Grove Community Services District) are independent special districts and are governed by elected Boards of Directors. Portions of the foothill areas are also protected by the State Division of Forestry, although it provides no structural protection. The unincorporated community of Freeport and a portion of its surrounding area are not located within any organized fire protection agency.

Folsom State Prison provides fire protection services within Folsom State Prison and does not provide fire protection to the public (Sacramento LAFCO website, 2009).

All fire districts provide emergency medical rescue and fire protection services. Some Districts also provide advanced life support via fire department ambulances, paramedic squads, and/or by the placement of firefighter/paramedics on fire engines. The largest number of calls fire districts receive is for medical-related aid while only a minor portion is for fire suppression.

The following 11 fire districts serve the unincorporated areas:

- Sacramento Metropolitan Fire District
- Cosumnes Community Services District
- Delta
- Herald
- Fruitridge
- Wilton
- Pacific
- Natomas
- River Delta
- Walnut Grove
- Courtland

Plate PS-2 shows the boundaries of all fire districts that serve Sacramento County. Sacramento Metropolitan Fire District serves the majority of unincorporated Sacramento County.

Plate PS-2 Fire Districts within Sacramento County

ENERGY SERVICES

The Sacramento Municipal Utility District (SMUD) generates, transmits and distributes electric power to a 900-square mile service area that includes Sacramento County and a small portion of Placer County. SMUD gets its electricity from diverse and competitively priced resources, including: hydro generation; cogeneration plants; advanced and renewable technologies such as wind, solar, and biomass/landfill gas power; and power purchased on the wholesale market. SMUD buys and sells energy and capacity on a short-term basis to meet load requirements and reduce costs (SMUD, 2009).

SMUD plans to increase the amount of power it gets from non-hydro renewable resources over the next 10 years. SMUD received approval from the California Energy Commission to build the first phase of the 500-megawatt Cosumnes Power Plant. The gas-fired plant, which came online in 2006, provides enough power to meet the annual needs of 450,000 single-family homes.

Additionally, SMUD has the Upper American River Project, which consists of 11 reservoirs and eight powerhouses and generates enough electricity to meet nearly 15 percent of SMUD's customer demand. The Upper American River Project can provide approximately 1.8 billion kilowatt-hours of electricity during a normal water year, which is enough energy to power about 180,000 homes (SMUD, 2009).

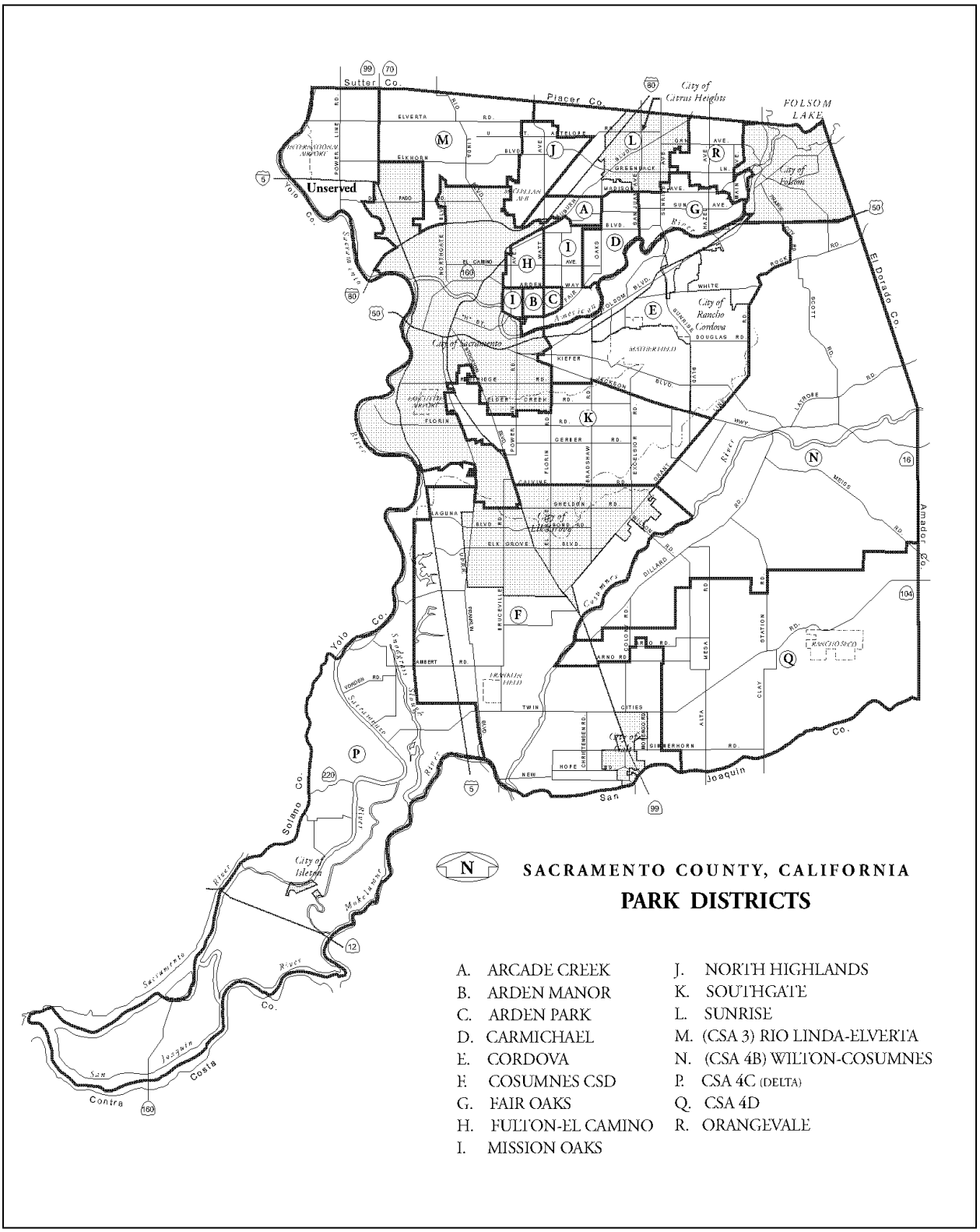
Natural gas service is provided in Sacramento County by Pacific Gas & Electric Company (PG&E). PG&E is one of the largest combination natural gas and electric utilities in the United States. PG&E delivers natural gas from three major sources – California, the southwestern U.S. and Canada.

PARKS AND RECREATION

In Sacramento County, recreation services are provided by five different types of government entities: dependent park districts, independent park districts, County service areas, cities, and the County regional park system. There are thirteen park districts, two County service areas, four city parks departments, and one County regional park system.

Parks agencies provide solely park and recreation facilities and programs. Dependent park districts are governed by boards appointed by the Sacramento County Board of Supervisors. Independent park districts are governed by boards elected by voters in the district. The unincorporated portion of Sacramento County is served by thirteen park districts and two County service areas, as shown in Plate PS-3.

Plate PS-3 Park Districts within Sacramento County



REGULATORY SETTING

FEDERAL

SOLID WASTE

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA)

The Resource Conservation and Recovery Act (RCRA) was enacted in 1976 to protect human health and the environment from potential hazards of waste disposal, to conserve energy and natural resources, to reduce the amount of waste generated, and to ensure that wastes are managed in an environmentally sound manner (EHSO, 2009). Under RCRA, the United States Environmental Protection Agency (US EPA) has the authority to control hazardous wastes from the "cradle to grave". This includes the generation, transportation, treatment, storage and disposal of hazardous wastes (US EPA, 2009). RCRA also sets a framework for the management of non-hazardous solid wastes. In 1986, amendments to RCRA enabled the US EPA to address underground storage tanks storing petroleum and other hazardous substances.

RCRA authorizes states to develop and enforce their own waste management programs. State programs must be approved and authorized by the US EPA.

ENERGY SERVICES

FEDERAL ENERGY REGULATORY COMMISSION

The Federal Energy Regulatory Commission is an independent agency that regulates the transmission and sale of electricity, natural gas, and oil; licenses and inspects hydropower projects; reviews proposals to build liquefied natural gas (LNG) terminals; and oversees related environmental matters (FERC, 2009).

STATE

SOLID WASTE

CALIFORNIA INTEGRATED WASTE MANAGEMENT ACT AND THE CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD (CIWMB)

Regulations for solid waste disposal in California began with the enactment of the Solid Waste Management and Resource Recovery Act of 1972. This statute created the Solid Waste Management Board, giving it authority related to solid waste handling, disposal and reclamation.

The Integrated Waste Management Act of 1989 is the result of two pieces of legislation, AB 939 and SB 1322, which created the California Integrated Waste Management

Board (CIWMB). The Integrated Waste Management Act mandated a goal of 25 percent diversion of each city's and county's waste from disposal by 1995 and 50 percent diversion in 2000, with a process to ensure environmentally safe disposal of waste that could not be diverted. The CIWMB plays a central role of promoting achievement of the waste diversion as mandated by the Act (Cal EPA, 2009).

The CIWMB is the State agency designated to oversee, manage, and track California's 92 million tons of waste generated each year. The Board provides grants and loans to help California cities, counties, businesses and organizations meet the State's waste reduction, reuse and recycling goals. The Board promotes a sustainable environment where these resources are not wasted, but can be reused or recycled. In addition to many programs and incentives, the Board promotes the use of new technologies for the practice of diverting California's resources away from landfills (CIWMB, 2009). The Board is responsible for ensuring that State waste management programs are primarily carried out through local enforcement agencies (LEAs). **The California Water Resources Control Board and the Central Valley Regional Water Quality Control Board also regulate waste disposal (the latter actually regulated solid waste prior to the CIWMB).**

As reported in the CIWMB 2007 Annual Report, California has exceeded the goals mandated by the Integrated Waste Management Act of 1989 by diverting 54 percent of its waste stream. This accomplishment is in part due to successful partnership between State government, local government, and the solid waste industry in California.

Senate Bill 1016, signed into law on September 26, 2008, represents a fundamental shift in the way local jurisdictions will be measured for compliance with state diversion mandates. Jurisdictions will be evaluated based on the implementation of programs that measure per capita waste disposal, rather than diversion percentage.

Public Schools

Leroy F. Greene School Facilities Act of 1998

The "Leroy F. Greene School Facilities Act of 1998", also known as Senate Bill No. 50 (SB 50) established a State program to provide per-pupil funding for new construction and modernization of existing school facilities. (OPSC, 2009). The passage of Proposition 1A in 1998 allowed SB50 to be fully implemented.

SB 50 limited the power of cities and counties to require mitigation of school facilities as a condition of approving new development and authorized school districts to assess fees (at various levels) to directly offset the costs associated with increased capacity as a result of new development.

OFFICE OF PUBLIC SCHOOL CONSTRUCTION AND THE STATE ALLOCATION BOARD

The State Allocation Board (SAB) is responsible for determining the allocation of state resources used for the new construction and modernization of local public school facilities. The SAB is also responsible for the administration of the State School Facility Program, the State Relocatable Classroom Program and the Deferred Maintenance Program. The SAB is the policy-level body for the programs administered by the Office of Public School Construction (OPSC) (OPSC, 2009). The OPSC, as staff to the SAB, implements and administers the School Facility Program and other programs of the SAB. The OPSC also has the responsibility of verifying that all applicant school districts meet specific criteria based on the type of funding which is being requested. (OPSC, 2009)

There have been four Kindergarten-University Public Education Facilities Bond Acts passed by voters (Proposition 1A, 47, 44 and 1D) that allocated billions of dollars in general obligation bonds for K – 12 facilities through the School Facility Program. These funds help assist school districts with overcrowding, accommodating future enrollment growth and repairing and modernization of older facilities.

CALIFORNIA EDUCATION CODE

The California Education Code authorizes the California Department of Education to develop site selection standards for school districts. The California Department of Education School Facilities Planning Division has prepared a School Site Selection and Approval Guide that provides criteria for location appropriate school sites in the State of California.

Site selection is determined based on a screening and ranking procedure. The criteria, in order of importance are listed below:

1. Safety
2. Location
3. Environment
4. Soils
5. Topography
6. Size and Shape
7. Accessibility
8. Public Services
9. Utilities
10. Cost
11. Availability
12. Public Acceptance

Fire Protection and Emergency Services

California Occupational Safety and Health Administration

In accordance with CCR Title 8 Sections 1270, "Fire Prevention" and Section 6773 "Fire Protection and Fire Equipment", the California Occupational Safety and Health Administration (Cal/OSHA) has established minimum standards for fire suppression and emergency medical services. The standards include, but are not limited to, guidelines on the handling of highly combustible materials; fire hose sizing requirements; restrictions on the use of compressed air; access roads; and the testing, maintenance, and use of all fire fighting and emergency medical equipment.

Emergency Response/ Evacuation Plans

The State of California passed legislation authorizing the Office of Emergency Services (OES) to prepare a Standard Emergency Management System (SEMS) program, which sets forth measures by which a jurisdiction should handle emergency disasters. Non-compliance with SEMS could result in the State withholding disaster relief from the non-complying jurisdiction in the event of an emergency disaster.

Energy Services

California Public Utilities Commission

The California Public Utilities Commission (CPUC) regulates the design, installation, and management of California's public utilities, including electric, natural gas, water, transportation, and telecommunications. The CPUC also provides consumer programs and information, such as energy efficiency, low income programs, demand response, and California solar initiative for California's energy consumers.

California Code of Regulations

New buildings constructed in California must comply with the standards contained in Title 20, Energy Building Regulations, and Title 24, California Building Standards Code. Part 6 of Title 24 contains California's Energy Efficiency Standards for Residential and Nonresidential Buildings. These regulations were established in 1978 in response to legislative mandate to reduce California's energy consumption. The standards are updated periodically to incorporate new energy efficiency technologies and methods (CEC, 2009).

Warren-Alquist State Energy Resources Conservation and Development Act

The Warren-Alquist Act of the Public Resources Code gives statutory authority to the California Energy Commission. Under the Warren-Alquist Act, there will be state policies for responsibility for energy resources, reduction in uses of energy, conservation of energy, and establishment of statewide goals for energy conservation.

(Warren-Alquist Energy Resources Conservation and Development Act, Government Code Section 25000 *et seq*.).

Park and Recreation

QUIMBY ACT

The Quimby Act (California Government Code Section 66477) states that "the legislative body of a city or county may, by ordinance, require the dedication of land or impose a requirement of the payment of fees in lieu thereof, or a combination of both, for park or recreational purposes as a condition to the approval of a tentative or parcel map…". It should be noted that the Quimby Act only applies to the acquisition of new parkland and does not apply to the physical development of new park facilities or associated operations and maintenance costs. The Quimby Act effectively preserves open space needed to develop parkland and recreational facilities; however, the actual development of parks and other recreational facilities is subject to discretionary approval and is evaluated on a case-by-case basis with new residential development. The Quimby Act also finds that a minimum of three acres, up to a maximum of five acres, of park area is required per 1,000 persons.

Local

Solid Waste

SACRAMENTO COUNTY DEPARTMENT OF WASTE MANAGEMENT AND RECYCLING (DWMR)

The Sacramento County Department of Waste Management and Recycling (DWMR) is responsible for maintaining a waste management system for residents and businesses in the unincorporated areas of the County. The DWMR has responsibility for garbage recycling and collection services, garbage disposal and recycling facilities, and recycling programs. The DWMR oversees the waste management collection and disposal services for approximately 155,500 residential customers every week. The DWMR collects and disposes/processes 150,000 tons of trash, 75,000 tons of green waste, and 45,000 tons of recyclables each year.

In 2007, the County turned in almost ~~1.4 million pounds~~ **700 tons** of electronic waste (e-waste) to the California Electronic Asset Recovery (CEAR), which is the County's e-waste vendor. The money generated from e-waste recycling goes back into e-waste recycling programs.

SOLID WASTE ADVISORY COMMITTEE

The Solid Waste Advisory Committee (SWAC) is an advisory panel consisting of appointed representative from each jurisdiction in Sacramento County. The SWAC is the State-mandated Local Task Force (as mandated by the California Public Resources Code Section 40950), which coordinates waste management and recycling efforts

throughout the County. The SWAC advises the County Board of Supervisors, the city councils of the cities within the County, and the Sacramento Regional County Solid Waste Authority (SWA) on all matters relating to the County of Sacramento Integrated Waste Management Plan and all matters relating to integrated waste management, including public education; source reduction; recycling; composting; transformation; materials recovery/resource recovery and marketing; and the collection, transfer, processing, and disposal of refuse and recycling.

SACRAMENTO COUNTY INTEGRATED WASTE MANAGEMENT PLAN

The County of Sacramento adopted the Sacramento County Integrated Waste Management Plan in March 1996, and it was approved by the California Integrated Waste Management Board in May 1998. **The plan was re-approved as part of the mandatory 5-year review process in March of 2009.** This plan consists of the following:

- Siting Element (entire county: cities and unincorporated areas)
- Summary Plan (entire county: cities and unincorporated areas)
- Source Reduction & Recycling Elements (by City, County, or Regional Agency)
- Household Hazardous Waste Elements (by City, County, or Regional Agency)
- Non-disposal Facility Elements (by City, County, or Regional Agency)

These documents are the main sources and references for solid waste facility planning in Sacramento County. The Siting Element and Summary Plan are prepared and administered by the County of Sacramento, Department of Waste Management & Recycling. The remaining documents are prepared and administered by each individual jurisdiction or regional agency.

SACRAMENTO REGIONAL SOLID WASTE AUTHORITY (SWA)

The Sacramento Regional Solid Waste Authority is a joint powers authority of Sacramento County and the City of Sacramento. SWA was formed in December 1992 to assume the responsibility for solid waste, recycling, and disposal needs for businesses and apartment complexes in the Sacramento area. The SWA regulates commercial solid waste collection by franchised haulers and offers recycling services to multi-family dwelling units. SWA is governed by a Board of Directors consisting of elected officials from the City of Sacramento and the unincorporated area of Sacramento County. The following SWA recycling ordinances apply to the unincorporated areas of the County.

~~MULTIFAMILY RECYCLING~~ SWA ORDINANCES

The SWA has adopted three recycling ordinances that target three distinct waste streams: (1) The Business Recycling Ordinance, adopted in 2007 for commercial generators who subscribe to 4 cubic yards or more of refuse service per week; (2) The Certification of C&D [Construction and Demolition] Debris Sorting Facilities

Ordinance, adopted in 2008, that creates a program for mized C&D facilities that dovetails with both City and County C&D Ordinances for builders; and (3) The Multifamily Recycling Ordinance, adopted in 2009, that requires owners of multifamily properties with over 5 units to subscribe to a recycling service for their tenants.

~~***MULTIFAMILY RECYCLING ORDINANCE***~~

~~In February 2000 the SWA adopted Ordinance 5, which requires recycling by multi-family dwelling units and complexes in the SWA region. The ordinance defines multi-family dwelling units as all residential dwelling units and complexes that have five or more dwelling units located on a single parcel of land. Multi-family complexes would include all apartment complexes, mobile home parks, multi-storied residential units, senior housing/care facilities, and large condominium complexes not served by residential curbside recycling programs. All multi-family communities must implement a recycling program, and permitted solid waste haulers must provide a recycling program. Owners do have collection options; owners can use independent recyclers or owners can provide the recycling themselves. The enforcement agency for this ordinance is the Sacramento County Solid Waste Management and Recycling Division.~~

~~***BUSINESS RECYCLING ORDINANCE***~~

~~On March 8, 2007 the SWA Board adopted a Business Recycling Ordinance requiring businesses who subscribe to garbage service of four cubic yards or greater per week to have a recycling program. The ordinance became effective April 8, 2007. Participating jurisdictions include the City of Sacramento and the unincorporated area of Sacramento County. The Sacramento Environmental Management Department is implementing the ordinance with major emphasis on outreach and education.~~

LOCAL ENFORCEMENT AGENCY

Local enforcement agencies (LEAs) have the primary responsibility for ensuring the correct operation and closure of solid waste facilities in the state. They also have responsibilities for guaranteeing the proper storage and transportation of solid wastes. The Sacramento County Environmental Management Department (EMD) is authorized as the LEA under Division 30 of the Public Resources Code and Title 14 of the California Code of Regulations (CCR).

1993 SACRAMENTO COUNTY GENERAL PLAN

The stated goal of the 1993 Public Facilities Element, Solid Waste Section is “safe, efficient, and environmentally sound operation of solid waste facilities in Sacramento County” (1993 GP PFE pp. 11). Policies PF-19 through PF-25, are identified to achieve this goal. Policy PF-20 specifies that property buffering the “County landfill shall remain in agricultural, recreational or other open space uses and extend 2,000 feet in all

directions, measured from the landfill property line". The objectives and intent of these policies can be read in their entirety in 1993 Public Facilities Element.

PUBLIC SCHOOLS

SACRAMENTO COUNTY OFFICE OF EDUCATION

The Sacramento County Office of Education (SCOE) is responsible for delivering quality education to more than 238,000 K – 12 public school students in Sacramento County. The SCOE provides technical assistance, curriculum and instructional support, staff development, legal and financial advice and oversight to 13 school districts. SCOE also directly educates more than 30,000 children and adults.

1993 SACRAMENTO COUNTY GENERAL PLAN

The Sacramento County General Plan contains public school related policies applicable to the unincorporated areas. These policies concern the siting and construction of school facilities (PF-26 through PF-33, PF-36 through PF-38), a school facilities planning program (PF-34 and PF-35), fees and school funding (PF-40 through PF-43), and the scheduling of school construction (PF-44 through PF-46).

LIBRARIES

1993 SACRAMENTO COUNTY GENERAL PLAN

The Sacramento County General Plan contains library-related policies applicable to the unincorporated areas. These policies concern the library level of service (PF-39 and PF-40), capital facility funding (PF-41 through PF-44), and library siting (PF-45 through PF-48).

LIBRARY FACILITY MASTER PLAN 2007-2025

The Facility Master Plan sets forth general standards and criteria for the renovation and construction of all new libraries. Existing and future library needs are largely population driven, e.g., for every 30,000 residents in a community, at least one full service library is required. Ideally, new libraries would have 0.4 to 0.6 square feet per capita with some basic minimum and maximum sizes. The FMP also establishes preferred sizing and footprint and desirable components such as volumes and collection, meeting rooms, study areas, computer terminals and so on. Each of these items is standards driven. One of the most critical items for future library development is location. A new library in a poor location is an under-utilized library, and conversely, an older, under-sized library in a good location is a highly used library. Important location criteria include: land availability, cost, quality of the site, size, accessibility (parking, pedestrian access, public transportation), and synergy/location with other public and private uses. For example, a new library is often better positioned in a new town square, rather than in a residential neighborhood.

Law Enforcement

1993 Sacramento County General Plan

The Sacramento County General Plan contains law enforcement polices applicable to the unincorporated areas. These policies concern the planning and development of law enforcement programs and facilities (PF-57 and PF-58), and crime prevention (PF-59 and PF-60).

Fire Protection and Emergency Services

Fire Codes and Guidelines

The availability of sufficient water flows and pressure are a basic requirement of the fire districts. Fire District requirements are determined for specific development projects at the design stage and are based on the Uniform Building Code (UBC). In addition to meeting minimum fire flow requirements, all development projects within the unincorporated area are required to meet other various fire protection requirements identified in the plan check and review process. The Fire District specifications require that fire sprinklers be installed in all new commercial construction that exceeds 3,600 square feet and some residential properties exceeding 2,999 square feet. Also, for structures exceeding 3,600 square feet, the district requires water pressure of at least 20 pounds per square inch residual pressure at 1,000 gallons per minute flow. The district also requires that all traffic signals installed on a project site include traffic control devices that allow the Fire District to activate the light and therefore control the flow of traffic in order to maintain a response time of five minutes.

Fire District Master Plans

The Fire District Master Plans provide policy guidance, objectives, and activities in an effort to improve emergency response to the districts' citizens, use existing resources more efficiently, and improve district facilities. These plans address deficiencies with existing fire stations, including age and condition issues; noncompliance with building codes, such as the ability to respond to emergencies following an earthquake; and lack of apparatus rooms of sufficient size to store present-day emergency-response equipment. These plans are available for review from the individual fire districts.

1993 Sacramento County General Plan

The 1993 Sacramento County General Plan contains fire protection and emergency services policies applicable to the unincorporated areas. Policies PF-61 through PF-65 integrate fire and emergency safety measures into all neighborhood and building designs, such as flow requirements, fire equipment installation (fire hydrants and associated water systems), and emergency signal activation. Policies PF-66 though PF-69 discuss the possibility of the County establishing a fire mitigation fee, and the incorporation and use of this fee for the funding of new facilities, equipment and personnel to serve growth.

Energy Services

1993 Sacramento County General Plan

The County General Plan's existing policies related to energy facilities include the location of facilities to minimize visual intrusion, biological impacts, and land use incompatibilities for cogeneration and solar facilities as well as conventional electric facilities (PF-71 through PF-77, and PF-81 though PF-84), the identification of non-potable water availability (PF-79) and the location of transmission infrastructure (PF-85 through PF-100). Policies PF-101 through PF-115 relate to the siting and design of subtransmission lines, while PF-116 discusses the County's electric and magnetic field policy. Policies PF-117 and PF-118 relate to natural gas production and distribution facilities.

Parks and Recreation

1993 Sacramento County General Plan

The 1993 Sacramento County General Plan contains parks and recreation related policies, discussed in both the Public Facilities and Open Space Element. Policy PF-123 addresses park standards and fees for new development. PF-124 through PF-128 address park maintenance and development. PF-129 and PF-130 address interagency coordination with County park agencies. OS-9 states that the County shall seek a standard for regional parks of 20 acres per 1,000 persons. While there are a variety of policies relating to open space (i.e. wetlands, riparian corridors, woodland, and floodlands), other than Policy OS-9, there are no policies relating to parkland/population ratios in the General Plan.

American River Parkway Plan

The American River Parkway Plan (Parkway Plan) addresses the entire length of the Parkway, which includes portions of Sacramento County, the City of Sacramento, and a small portion of the Folsom State Recreational Area. The Parkway Plan was adopted and incorporated into the General Plans for Sacramento County and the City of Sacramento. The main purpose of the Parkway Plan is to provide a guide to land use decisions affecting the Parkway; specifically addressing its preservation, use, development, and administration. The Parkway Plan is a policy and action document to ensure the preservation of the naturalistic environment while providing limited developments to facilitate human enjoyment of the parkway. The Parkway Plan includes guiding statements and specific tasks formulated to carry out the intent of the various policies identified in the plan. The Parkway Plan has been updated and one of the changes between the 1985 Parkway Plan and the current, updated Parkway Plan is a change in the intensity of use. There was a net decrease in the intensity of allowable uses within the Parkway, but in some specific areas the land use designations have been increased in intensity. Areas where allowable uses are more intense than in the 1985 Parkway Plan are in targeted locations intended to allow specific recreational facilities, such as an arboretum, interpretive areas, and the Woodlake gateway. There

is also a policy that, under specific circumstances, will allow mountain biking on portions of the Parkway.

SIGNIFICANCE CRITERIA

The following standards are based on Appendix G of the CEQA Guidelines. A significant impact would result if the proposed project would:

1. result in substantial adverse physical impacts associated with the provision of new or physically altered government 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 fire protection, police protection, schools and parks;

2. 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;

3. include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment;

4. produce solid waste that would exceed the capacity of permitted landfill(s) that would serve the project's solid waste disposal needs;

5. be in non-compliance with federal, state and local statutes and regulations related to solid waste.

IMPACTS AND ANALYSIS

The proposed Project includes a number of New Growth Areas areas which are located throughout the county. The New Growth Areas include: Jackson Highway Corridor, Grant Line East, and West of Watt, and Easton. The Project also includes areas of proposed development and enhancements to existing buildings/infrastructure noted within certain commercial corridors and residential infill areas. Please refer to the Project Description chapter of this EIR for details related to the new growth. The Easton Planning Area is different from the other New Growth Areas identified in the Draft General Plan Update in that a detailed project proposal was submitted to the County (Control Number: 04-GPB-ZOB-SDP-AHS-0035) well in advance of the Draft General Plan Update. The Easton General Plan Amendment project was approved in December 2008, and therefore is subject to 1993 General Plan policies. An Environmental Impact Report was prepared to analyze its impacts pursuant to those policies. Issues related to

Public Services in the Easton Planning Area were evaluated the EIR prepared for that project, and are summarized where appropriate below.

IMPACT: CONSTRUCTION OF NEW FACILITIES

The funding of new facilities, land acquisition, and other issues are discussed within the impact sections to follow, which are specific to the type of facility (schools, parks, etc). This section discusses the overall impacts that can be expected to result from constructing new facilities, which will generally include schools, libraries, Sheriff's facilities, fire stations, energy transmission lines, energy transfer stations, and parks. The locations of these needed facilities is determined based on land use densities and usage types within specific areas – details that are not available at the General Plan Update stage. Locations are determined when a Specific Plan, Community Plan, or similar master plan is developed. Until these later plans are developed and specific locations for facilities can be determined, this analysis cannot examine site-specific impacts for each facility type. These site-specific impacts will be identified and appropriately mitigated pursuant to General Plan policies and other regulations as part of the subsequent CEQA document that will be required for each new facility project. This analysis discloses the general impacts that can be expected.

Depending on the location and type of facility, the construction and operation of new facilities could result in the following impacts typical of new construction: air quality (related both to construction and operation), biological resources, traffic and circulation, erosion and grading, water quality, drainage, noise (sirens and traffic) and public utility services demand (electric, water, and wastewater). Less typical, but still possible, are impacts related to cultural resources, aesthetics (particularly new transmission lines in the open space areas within and between the New Growth Areas), agricultural resources, and hazardous materials. The major new facilities will mainly be constructed within the New Growth Areas, where there is little existing public service infrastructure. Within the Commercial Corridors and infill areas infrastructure is already in place; construction will consist of minor extension of infrastructure, and possibly existing facility expansion or renovation. These construction activities will take place within the growth areas of the overall Project, and it has already been assumed that development could take place anywhere within these growth areas. The relevant topical chapters of this EIR have already disclosed the impacts of full development within the Project growth areas, and provided mitigation as appropriate. The development of public service facilities will not result in any additional environmental impacts that have not already been disclosed within the relevant topical chapters of this EIR. Therefore, construction will not result in any additional substantial impacts specific to public services; additional impacts specific to public facility construction are *less than significant*.

IMPACT: LAND USE AND DEVELOPMENT EFFECTS ON SOLID WASTE DISPOSAL DEMAND

PROPOSED POLICIES

The Solid Waste Services and Facilities section of the proposed General Plan Update does not contain any new policies; however, some modifications have been made to existing policies (refer to Appendix A for a list of these policies).

The current 1993 Policy PF-20 specifies that "property buffering the County landfill shall remain in agricultural, recreational or other open space uses and extend 2,000 feet in all directions, measured from the landfill property line". The proposed policy has been modified from the "landfill property line" to the "landfill's permitted boundary".

A 2,000-foot buffer from the landfill footprint (not the landfill property line) was established in the RDSI that was prepared for the Kiefer Landfill Expansion project (County Control Number: 92-0254). This change in the 2,000-foot buffer was adopted by the Board of Supervisors on March 14, 1995. The modification in language to this policy is to be consistent with this change to the 2,000-foot buffer.

Proposed changes to the General Plan policies are neutral or beneficial with respect to environmental impacts. Impacts are *less than significant.*

NEW GROWTH AREAS

The New Growth Areas will increase populations and thus increase solid waste generation. The Jackson Highway Corridor New Growth Area is estimated to accommodate between 30,000 and 41,000 new housing units. The Grant Line East New Growth Area could accommodate between 15,000 and 23,000 new housing units. The West of Watt New Growth Area is estimated to accommodate between 2,500 and 6,000 new housing units. The Easton Planning Area is estimated to accommodate between 4,000 and 6,000 new housing units.

The County has met AB 939's requirement **with a 58% diversion rate and is in compliance with Senate Bill 610's per capita disposal maximum of 7.7 pounds per person per day by disposing only 5.9 pounds per person per day. The County is** ~~of 50 percent waste diversion and is~~ expected to continue waste diversion through General Plan policy PF-19 (implementation and support of recycling programs), the SWA **and County recycling program** ~~Business Recycling Ordinance~~, and through the County Integrated Waste Management Plan. With the increases in recycling efforts, Kiefer Landfill has the capacity to meet demand **until 2035 or later** ~~through the year 2037~~.

Kiefer Landfill has the capacity to meet solid waste demands generated by the New Growth Areas; the proposed Project will not result in the expansion of Kiefer Landfill or construction of a new landfill. The construction of new transfer stations is a part of the

recycling efforts, and General Plan Policy PF-21 and Implementation Measure A, will ensure impacts of new transfer stations are minimized. The New Growth Areas will not result in significant environmental impacts to solid waste facilities; impacts are considered *less than significant*.

Commercial Corridors and Residential Infill

There are 14 Commercial Corridors identified for revitalization by developing mixed use centers and urban villages. It has been estimated that the commercial corridors could accommodate 19,000 housing units.

The residential infill development scenario assumes that vacant properties and areas not developed to full buildout will be fully developed. This could result in an additional 10,000 to 18,000 housing units.

As stated above in the New Growth Areas, compliance with General Plan Policy PF-19, the SWA **and County recycling program** ~~Business Recycling Ordinance~~ and the County Integrated Waste Management Plan will reduce the waste entering Kiefer Landfill. Additionally, Kiefer Landfill has the capacity to meet demands **until 2035 or later** ~~through 2037~~. The Commercial Corridors and Residential Infill will not generate waste in excess of Kiefer Landfill's capacity; impacts are considered *less than significant*.

Mitigation Measures:

None recommended.

Impact: Increased Demand for Public School Facilities

Proposed Policies

The Public School Facilities section of the proposed General Plan contains two new policies and 15 policies are proposed to be deleted. Additionally, some modifications have been made to existing policies (refer to Appendix A for a list of new and modified policies).

PF-33 is proposed as a new policy and states, "all school site plans shall be designed to minimize traffic speed and maximize traffic flow around the school, allowing for several access points to and from the site". New Implementation Measure D states that school districts are to be informed early in the planning process of any comprehensive planning effort.

The Draft General Plan will remove policies and implementation measures relating to School Facilities Mitigation and School Construction Schedule sections. School facilities mitigation is covered in California Government Codes.

The proposed policies are either neutral or beneficial with respect to environmental impacts. Impacts are *less than significant.*

New Growth Areas

Development in the proposed New Growth Areas would increase the need for new public elementary, junior high, and high schools.

Residential development in the Jackson Highway Corridor New Growth Area would be serviced by the Elk Grove and Sacramento City Unified School Districts. The Grant Line East New Growth Area would be serviced by the Elk Grove Unified School District and the Folsom-Cordova Unified School District. The West of Watt New Growth Area would be serviced by Twin Rivers Unified and Center Unified School Districts.

The Easton Planning Area would be serviced by the Folsom-Cordova Unified School District. In the EIR prepared for the Easton project, impacts of increased student populations to the Folsom Cordova Unified School District were considered less than significant since the construction of the new schools to serve the project would result in minimal environmental impacts and the payment of school fees (developer fees and Measure M funds) would be sufficient to fund the necessary school construction for the project.

State policies have established minimum standards for facilities, requiring that school districts prepare a school facilities master plan to identify each district's facility needs. Many of the school districts to be affected by increased growth as a result of the General Plan Update may not have accounted for this additional growth in their school facilities master plans. However, large development projects require financing plans that includes funding mechanisms for schools. Financial impacts to school districts for facilities are not considered a significant environmental impact and are mitigated under California Government Code Sections 65995(h) and 65996(b). Section 65995(h) states that the payment or satisfaction of a fee, charge, or other requirement levied or imposed pursuant to Section 17620 of the Education Code is deemed to be full and complete mitigation of the impacts for the planning, use, development, or the provisions of adequate school facilities. Section 65996(b) finds that these provisions provide full and complete school facilities mitigation.

Existing General Plan policies include policies to accommodate for growth and increased service demands. For instance, there are policies that require land dedications or reservations for new schools, and Specific Plans must show locations of future school sites. These policies, in addition to developer fees under SB 50 and school facilities mitigation under the California Government Code, would serve as complete CEQA mitigation for the impacts of increased development on the ability of school districts to provide adequate services. Therefore, this impact is considered *less than significant*.

The New Growth Areas would not cause overcrowding to existing schools, since new school sites will be developed in conjunction with new residential development.

Construction of new facilities will not result in additional significant effects not already identified in the other topical chapters of this EIR. The Project will not adversely affect the ability to provide adequate services, nor will the construction of facilities result in any substantial adverse physical impacts beyond those already identified elsewhere in this EIR. Impacts specific to school services are *less than significant*.

Commercial Corridors and Residential Infill

There are 14 Commercial Corridors that could be revitalized by developing mixed-use centers and urban villages. This strategy could produce approximately 19,000 new housing units. The residential infill development scenario assumes that vacant properties will be developed and properties that are developed to lower density than the existing land use designations allow will be fully developed. It has been estimated that this strategy could produce between 10,000 and 18,000 new housing units throughout the County.

These increases in development throughout the County have the potential to impact all school districts in the County by causing increases in student populations to existing schools. Established case law, Goleta Union School District v. The Regents of the University of California (36 Cal-App. 4th 1121, 1995), indicates that school overcrowding, standing alone, is not a change in the physical conditions, and cannot be treated as an impact on the environment.

As stated above, financial impacts to school districts for facilities are not considered a significant environmental impact and are mitigated under California Government Code Sections 65995(h) and 65996(b). Section 65995(h) states that the payment or satisfaction of a fee, charge, or other requirement levied or imposed pursuant to Section 17620 of the Education Code is deemed to be full and complete mitigation of the impacts for the planning, use, development, or the provisions of adequate school facilities. Section 65996(b) finds that these provisions provide full and complete school facilities mitigation. Therefore, impacts to public school facilities from Commercial Corridors and residential infill are *less than significant*.

Mitigation Measures:

None recommended.

Impact: Increased Demand for Library Services

Proposed Policies

The Library Facilities and Services section of the proposed General Plan Update contains one new policy and three implementation measures have been proposed for deletion. Additionally, some modifications have been made to existing policies (refer to Appendix A for a list of new and modified policies). New Implementation Program B of the Library Level of Service requires periodical review, revision to, and adoption of the

Library Master Plan to accommodate changes in service levels, customer expectations, and demographics.

The Sacramento Public Library Authority Facility Master Plan is the basis of the policies of the General Plan, which are related to levels of service and funding. The proposed General Plan Update will remove implementation measures that are no longer applicable to library facilities. These changes to the policies are neutral or beneficial with respect to environmental impacts. Impacts are *less than significant*.

New Growth Areas

Jackson Highway Corridor, Grant Line East, West of Watt, and the Easton Planning Area will increase the demand for public library services and require construction of new facilities, which could result in adverse environmental impacts.

The Sacramento Public Library Authority Facility Master Plan (2007 – 2025), has identified seven new libraries for the unincorporated area of Sacramento County, not including the Delta area. With the inclusion of new, expanded, and relocated facilities, the unincorporated area of the County is expected to have 324,167 square feet of library space.

Through the Sacramento Public Library Authority Facility Master Plan, existing library facilities will be upgraded to meet the standards set forth in the Facility Master Plan and new libraries will meet the demands and needs of the community. Additionally, funding mechanisms for new and expanded libraries are addressed in the Facility Master Plan. The New Growth Areas would require additional libraries. The General Plan requires incorporation of new library facilities into Specific Plans and Community Plans. The funding mechanisms for new libraries are also contained within the General Plan. The policies of the General Plan (library level of service, funding mechanisms and incorporation of new facilities into Specific Plans and Community Plans) will ensure that impacts associated with funding, level of service, and siting of new facilities will be *less than significant*.

Commercial Corridors and Residential Infill

The Commercial Corridors and residential infill strategies are Countywide and it is not likely that new libraries will be required to serve this growth. Expansion of existing facilities may be necessary; however, such expansion is would not result in significant environmental impacts. Impacts are *less than significant*.

Mitigation Measures

None recommended.

IMPACT: INCREASED DEMAND FOR LAW ENFORCEMENT SERVICES

PROPOSED POLICIES

The existing General Plan policies for the Sheriff's Department have been developed to expand law enforcement services in the areas of crime prevention and public education and designing neighborhoods for personal safety. The proposed General Plan polices remain unchanged, with the addition of a new measure. The new measure calls for the preparation of a "security ordinance" which will be a uniform code that will provide minimum safety and security specifications for new residential and commercial developments such as minimum specifications for door thickness, lock construction and lighting. These changes to the policies are neutral or beneficial. Impacts are *less than significant*.

NEW GROWTH AREAS

The development of the Jackson Corridor New Growth Area could accommodate approximately 30,000 and 41,000 new housing units, the Grant Line East New Growth Area could accommodate between 15,000 and 23,000 new housing units, the West of Watt New Growth Area could accommodate between 2,500 and 6,000 housing units and the Easton Planning Area could accommodate between 4,000 and 6,000 new housing units. The new growth areas combined could introduce between 51,500 to 76,000 new housing units. With a residency estimate of 2.7 people per household, the new growth areas would require between 139 to 205 additional staff to meet the 1 officer per 1,000 persons staffing goal.

The General Plan contains policies for the planning and development of law enforcement facilities, such as law enforcement programs (educational and crime preventative programs), design of neighborhoods and regulating security measures through the Zoning Code, Uniform Building Code and Land Development Ordinances. These policies and regulations will ensure that the Sheriff's Department can adequately serve the new growth. Impacts are *less than significant*.

COMMERCIAL CORRIDORS AND RESIDENTIAL INFILL

The Commercial Corridors strategy would revitalize 14 identified corridors with mixed use centers and urban villages, which could accommodate approximately 19,000 new housing units. The residential infill strategy could accommodate between 10,000 and 18,000 new housing units.

These areas are served by existing law enforcement stations. Some expansion of the existing facilities or construction of new facilities may be required to serve the additional development. As discussed above, existing policies and regulations will ensure that the Sheriff's Department can adequately serve the new growth. Impacts are *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: INCREASED DEMAND FOR FIRE PROTECTION AND EMERGENCY SERVICES

PROPOSED POLICIES

The policies and programs of the existing General Plan for fire protection and emergency services have been developed to meet two objectives:

- Fire and emergency safety measures integrated into all neighborhood and building design, and
- Equitable and adequate funding for new facilities, equipment and personnel to serve growth.

The proposed General Plan Update is proposing two new policies and modifications to four existing policies and all other polices, programs and measures remain unchanged. The two new policies pertain to traffic-calming measures and alternative fire protection measures if access is reduced. There are proposed modifications to existing policies that pertain to funding and mitigation fees imposed by the Board of Supervisors. See Appendix A for a comparison of the changes to these policies. These modifications and additions to the General Plan are neutral or beneficial. Impacts are *less than significant*.

NEW GROWTH AREAS

The proposed Jackson Highway Corridor New Growth Area, East of Grant Line New Growth Area, West of Watt and Easton Planning Area will increase the demand for fire protection and emergency services. This increase in demand will require additional staff and/or fire facilities in order to maintain service levels and to ensure adequate fire protection is provided. All proposed new growth areas would be served by the Sacramento Metropolitan Fire District, and increased development would require the District to increase staffing and/or expansion of existing facilities.

It is assumed that new fire stations would be built within the new growth areas, as development plans come forward. The General Plan contains policies that allow the Board of Supervisors to establish mitigation fees for the purpose of funding adequate fire protection and emergency medical response facilities, provided they find that such fees are critical and necessary to meet the facility funding needs of the fire district. The fire districts that receive such funds must maintain Insurance Service Office (ISO) ratings of 3 for hydrant areas and 8 for non-hydrant areas and a response time of five minutes for emergency calls, where staffing levels are adequate. Furthermore, building permits for new developments will not be issued until an applicant has contributed all

required mitigation fees when there is a Board of Supervisors-certified fire district financing plan for any applicable fire district. Additionally, the policies contained in the General Plan require that new buildings and neighborhoods meet the requirements of the California Fire Code and access and fire hydrants are adequate. These policies will ensure that impacts associated with growth and funding for adequate fire protection will be *less than significant*.

Commercial Corridors and Residential Infill

The identified 14 Commercial Corridors would be served by the Sacramento Metropolitan Fire District. Development within these corridors has the potential to impact the Sacramento Metropolitan Fire District, requiring the District to increase staffing and/or expansion of existing facilities.

Any new proposed development would, under discretion of the Board of Supervisors, be required to pay mitigation fees to fund adequate fire protection and emergency medical response if existing methods of financing are inadequate. The General Plan contains policies and measures to ensure that there is funding to provide adequate fire protection and emergency services and that buildings and neighborhoods meet the requirements of the California Fire Code and access and fire hydrants are adequate. These policies will ensure that impacts associated with growth and funding for adequate fire protection will be *less than significant*.

Mitigation Measures

None recommended.

Impact: Increased Demand for Energy Facilities and Services

Proposed Policies

The overall goal of the existing policies of the General Plan as it relates to energy facilities is to appropriately site energy facilities that efficiently and safely produce and distribute energy to Sacramento County residents without compromising environmental quality or human health. The proposed General Plan Update proposes the removal of two existing policies and removal of one implementation measure. The General Plan Update proposes minor modifications to existing policies and eight new policies and implementation measures. Refer to Appendix A for the complete comparison of proposed changes to General Plan policies.

Policy PF-85 is proposed for removal. This policy required new transmission corridors to avoid existing and planned urban areas. If avoidance was not possible, transmission lines should be placed underground. This policy has been removed since the requirement for underground transmission lines is regulated by the California Public Utilities Commission.

New proposed policy PF-64 requires that the County seeks input from SMUD at the earliest possible stage in the development process. PF-75 indicates that the County supports the generation and use of energy produced from renewable energy sources and the County supports the placement of large multi-megawatt solar facilities on rooftops or over parking (PF-82). New policy PF-83 requires that new transmission corridors be identified in all master plans created for new growth areas.

Additionally, as technology has developed efficient solar and other renewable energies, the General Plan Update contains policies that minimize the impacts of future renewable energy projects to the County's open space.

The proposed changes to the existing General Plan policies are neutral or beneficial. Impacts are *less than significant*.

New Growth Areas

The new growth areas would require additional energy production and distribution facilities (such as transmission corridors) to provide delivery of electricity and natural gas to new development. The General Plan contains policies regarding the siting of energy facilities that attempt to minimize impacts associated with land use conflicts, visual and aesthetic resources, historic or cultural resources, and biological resources.

New Community Plans that may result within the New Growth Areas must contain an Energy Facility Siting Element, indicating the location of existing and planned energy facilities. Developing neighborhoods must prepare a Public Facility Financing Plan that includes the cost of the installation of new and existing subtransmission lines underground. These new facilities would be constructed within the New Growth Areas, and as such would not result in any additional environmental impacts that will not already be caused by general development of the Project itself, as discussed and mitigated (as appropriate) in the relevant topical chapters of this EIR. With the policies contained in the General Plan, impacts will be minimized and/or mitigated; impacts are considered *less than significant*.

Commercial Corridors and Residential Infill

Under the Commercial Corridors and residential infill strategies, there are existing energy facilities and service which will be sufficient for the corridors and for infill development. However, if new electric and gas lines, or a substation is needed in these areas, coordination with utility providers would be required to ensure that adequate service is maintained. No significant environmental impacts would be associated with the provision of electric or natural gas services for the proposed Commercial Corridors and residential infill strategies. Impacts are considered *less than significant*.

MITIGATION MEASURES

None recommended.

IMPACT: INCREASED DEMAND FOR PARKS AND RECREATION FACILITIES

PROPOSED POLICIES

The proposed General Plan Update does not include any modifications to the policies of the General Plan. Sacramento County Regional Parks, in cooperation with other Park Districts, determined that an update would be beneficial and worked to create an updated version of the portion of the Public Facilities Element pertaining to park services, separate from the General Plan Update process. This version was submitted to the Planning and Community Development Department, and is included in Appendix G as an alternative to the current General Plan proposal. Though the existing policies support park services, the park districts are concerned that existing policies do not support operation and maintenance of parks adequately, only local park land acquisition. As a consequence, it is possible that new development consistent with the Project will result in potentially significant issues with providing adequate ongoing park services. To ensure that this impact is avoided, it is recommended as mitigation that the park districts' proposed alternative (or a similar updated version) is adopted as part of the General Plan. Mitigation is recommended to ensure that impacts are *less than significant*.

NEW GROWTH AREAS

The new growth areas would require new park facilities to serve new development. As required by the Quimby Act and General Plan policies, park land dedication and/or in-lieu fees are required in order to develop and maintain parks. General Plan policy PF-124 requires new subdivisions to provide sufficient acreage of parks to meet the long-range needs of the community. As development plans are proposed for the new growth areas, parks will be developed as part of those plans.

The Grant Line East New Growth Area is located near the Prairie City State Vehicular Recreation Area (SVRA), which is owned and maintained by the State of California Department of Parks and Recreation. The State acquired Prairie City SVRA in 1991 and at that time there was little development surrounding the SVRA. It is acknowledged that the Grant Line East New Growth Area will introduce new land uses within the vicinity of the Prairie City SVRA. However, specific plans will be required to maintain appropriate buffers and consider land use compatibility with the Prairie City SVRA.

General Plan policies, mitigation, and the Quimby Act ensure that impacts associated with the provision of park services in the growth areas of the General Plan Update would be *less than significant*.

Commercial Corridors and Residential Infill

Development of existing urban areas may require upgrades to existing parks; however, park impact fees and mitigation will ensure adequate park service for new development. Impacts are considered *less than significant*.

Mitigation Measures

PF-1. The County shall either adopt the Park District Alternative section of the Public Facilities Element, or a similar updated version.

No Project Alternative

Under the No Project Alternative, buildout of the 1993 General Plan along with reasonably foreseeable development would occur. Reasonably foreseeable development includes the Easton and Cordova Hills projects. Buildout includes the development of all the remaining vacant parcels in the Urban Policy Area in accordance with General Plan land use designations. Buildout also includes development in the new growth areas identified in the 1993 General Plan that have undergone master planning activities subsequent to the adoption of the 1993 General Plan. These include: Elverta Specific Plan (adopted in 2008), East Antelope Specific Plan (adopted in 1995), Vineyard Springs Comprehensive Plan (adopted in 2000), North Vineyard Station Specific Plan (adopted in 1998), and the Florin Vineyard Gap Community Plan (pending). Total growth assumed under the No Project Alternative is up to 55,000 residential units.

Impact: Solid Waste Facilities and Services

Under the No Project Alternative, solid waste facilities and services would not drastically change, and would not be substantially impacted by increased development within the proposed new growth areas. As stated before, Kiefer Landfill has enough capacity to meet demand **until 2035 or later** ~~until 2037~~. There are recycling programs already in place and the County is required to meet the requirements of AB 939. Impacts would be *less than significant*.

Impact: Public Schools

Under the No Project Alternative, there would be increases in student populations to existing public schools. These increases would not significantly impact existing schools. Additionally, as stated in the proposed project impact analysis section, school facilities mitigation is covered under Government Codes. Impacts would be *less than significant*.

IMPACT: LIBRARIES

Under the No Project Alternative, there would be increases in the demand for library services. However, this demand has been forecasted and analyzed in the Sacramento Public Library Authority Facility Master Plan. The Master Plan assumes that the County will be 98 percent built out by 2025. This is consistent with the No Project Alternative. The Master Plan identifies renovation of existing libraries in order to meet projected needs of the community and construction of new libraries to accommodate new growth. As it has been identified through the Facility Master Plan that the County will need new libraries and renovations to existing libraries, impacts of the No Project Alternative are considered *less than significant*.

IMPACT: LAW ENFORCEMENT

Under the No Project Alternative, there would be increases in the demand for law enforcement services. The No Project Alternative is estimated to accommodate 55,000 new residential units. Using the estimate of 2.7 persons per household, an additional 148 staff would be needed to meet the patrol goal of one officer per 1,000 persons for the Sheriff's Department. As the Sheriff's Department is currently operating below their goal, at roughly 0.5 officers per 1,000 persons, additional development would likely require expansion of existing facilities or construction of new facilities. Impacts associated with construction of new facilities would be reduced under the No Project Alternative because new development would be minimal in comparison to the proposed project. Impacts under this alternative are considered *less than significant*.

IMPACT: FIRE PROTECTION AND EMERGENCY SERVICES

Under the No Project Alternative, there would be increases in the demand for fire protection and emergency services. The No Project Alternative is estimated to accommodate 55,000 new residential units. General Plan policies require financing plans for master planning projects that allocate funding for new fire stations. This ensures that fire stations will be built to support new development. The master planning of the growth areas from the 1993 General Plan included adoption of financing plans with allocations for new fire stations. The No Project Alternative will not adversely impact fire protection services. Impacts associated with fire protection and emergency services are considered *less than significant*.

IMPACT: ENERGY FACILITIES AND SERVICES

The No Project Alternative would result in increased energy demand above existing levels, but less energy consumption as compared to the proposed Project because less development would occur. There would be sufficient energy to supply the Alternative. Impacts are *less than significant*.

IMPACT: PARKS AND RECREATION

Under the No Project Alternative, there would be increases in the demand for parks and recreation services. There are policies in the existing General Plan requiring development projects to set aside land for park facilities for new residential development. Additionally, there are policies that address funding for the maintenance of these parks as well. Sacramento County Regional Parks Department, in cooperation with other Park Districts, indicated that these existing policies may not be sufficient to provide park services and recommended changes to existing policies. If the No Project Alternative is adopted, these changes cannot be included. Impacts are considered *potentially significant*.

ALTERNATIVE 1: REMOVE GRANT LINE EAST

Removing the Grant Line East New Growth Area would eliminate development in the eastern portion of the County where there is no existing infrastructure. This alternative would reduce the potential buildout target to 113,000 residential units, as opposed to 150,000 residential units under the proposed project.

IMPACT: SOLID WASTE

Under Alternative 1, there would be less generation of solid waste as compared to the proposed project. With recycling programs in effect, and compliance with AB 939, Kiefer Landfill has capacity to meet demands **until 2035 or later** ~~until 2037~~. Impacts to solid waste services are considered *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: PUBLIC SCHOOLS

Under Alternative 1, increases in student populations would still occur in the commercial corridors and under the residential infill strategy. New schools would be required in the other New Growth Areas; however, with the elimination of the Grant Line East New Growth Area, the construction of new schools in this portion of the County would not be needed. Policies of the General Plan require facility financing plans for new development plans, which sets aside land for new schools. School facilities mitigation is covered under California Government Codes. Impacts to public schools are considered *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: LIBRARIES

The demand for library services under Alternative 1 would be less than the demand required under the proposed project, but more than under existing conditions. No new libraries would be built within the Grant Line East New Growth Area, which would reduce impacts to resources in this area. The General Plan contains policies that require new libraries as part of development plans and policies that address the funding mechanisms of new libraries. Impacts to libraries under Alternative 1 would be *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: LAW ENFORCEMENT

The demand for law enforcement services from the Sheriff's Department would be less than the demand required under the proposed project. Additionally, under Alternative 1, with the removal of Grant Line East, the need for more Sheriff patrol cars and staff in this area would be eliminated, as compared to the proposed project. Alternative 1 is estimated to accommodate 113,000 residential units, which would require the Sheriff's Department to hire an additional 305 staff, to meet the goal of 1 patrol officer per 1,000 persons. Additional patrol officers would also require additional patrol cars and facilities to house the cars and staff. Impacts associated with construction of new facilities would be reduced under Alternative 1 because there would be less new development in comparison to the proposed project. Impacts to law enforcement services under this alternative are considered *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: FIRE PROTECTION AND EMERGENCY SERVICES

The increases in demand for fire protection services and emergency services would be less under Alternative 1, as compared to the proposed project. New fire stations would not be needed in the Grant Line East New Growth Area, which would reduce impacts to natural resources located in this area, compared to the proposed project. Impacts under Alternative 1 would be less than the proposed project and as such, impacts to fire protection and emergency services are considered *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: ENERGY FACILITIES AND SERVICES

Under this alternative, the need for energy facilities and services would be reduced because less development would occur. The impacts discussed for the proposed project would be reduced. Impacts of energy facilities and services would be *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: PARKS AND RECREATION

Under Alternative 1, no new parks would be needed within the Grant Line East New Growth Area. The elimination of Grant Line East would not bring development close to the Prairie City SVRA. As such there would be less potential impacts as a result of increased development around the SVRA with the removal of Grant Line East New Growth Area. The same mitigation applicable to the Project is applicable to the Alternative. Mitigation is recommended to ensure that impacts are *less than significant*.

MITIGATION MEASURES:

See PF-1.

ALTERNATIVE 2: FOCUSED GROWTH

Alternative 2 does not contain the Grant Line East New Growth Area and the Jackson Highway Corridor New Growth Area is reduced to approximately 8,000 acres from 12,000 under the proposed project. Alternative 2 is the original Land Use Diagram brought forward by the Planning Department in the early planning stages of the proposed project. Although the Jackson Highway Corridor New Growth Area is reduced to 8,000 acres under this Alternative, the same number of units would be allocated, since densities are proposed to be greater. Average densities would be 15 dwelling units per acre, as compared to 10 dwelling units per acre under the proposed project. Alternative 2 has the same buildout target as Alternative 1, at 113,000 dwelling units.

IMPACT: SOLID WASTE

Increases to solid waste services would be the same under this Alternative and Alternative 1. Demand for solid waste services would be less than under the proposed project, but increases would not be significant due to increases in recycling programs, transfer stations and compliance with AB 939 to reduce wastes by 50%. Kiefer Landfill would not be significantly impacted and has the capacity to meet demands **until 2035**

or later ~~until 2037~~. Under this Alternative, impacts to solid waste services are *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: PUBLIC SCHOOLS

Under Alternative 2, there would still be increases of student populations to existing schools throughout the County due to the Commercial Corridors and the residential infill strategies. The construction of new schools would not be needed in the Grant Line East New Growth Area (similar to Alternative 1), and construction of new schools would not be needed in the eliminated portion of Jackson Highway Corridor. There would be less environmental impacts as a result of construction and operation of new schools under Alternative 2, as compared to the impacts that would result under Alternative 1 and under the proposed project.

This Alternative would not require new school construction within the Grant Line East New Growth Area (same as Alternative 1), but would also eliminate new school construction within the eastern portion of Jackson Highway Corridor. Environmental impacts under this Alternative would be less, as compared to the Proposed Project and Alternative 1.

General Plan policies require facility financing plans for new development plans, which sets aside land for new schools. School facilities mitigation is covered under California Government Codes. Impacts to public schools are considered *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: LIBRARIES

Similar to Alternative 1, no new libraries would be built within the Grant Line East New Growth Area, which would reduce impacts to resources in this area. Under this Alternative, new library facilities would not be built in the removed portion of the Jackson Highway Corridor. This would result in fewer resources impacted as a result of construction and operation. The General Plan contains policies that require new libraries as part of development plans and policies that address the funding mechanisms of new libraries. Impacts to libraries under Alternative 2 would be *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: LAW ENFORCEMENT

The demand for law enforcement services from the Sheriff's Department would be less than the demand required under the proposed project and similar to the demand under Alternative 1 (because Alternatives 1 and 2 include the same number of people, just in different areas). With the removal of Grant Line East and 4,000 acres of the eastern portion of Jackson Highway Corridor, the need for more Sheriff patrol cars and staff for these areas would be eliminated, as compared to the proposed project. Alternative 2 is estimated to accommodate 113,000 residential units, which would require the Sheriff's Department to hire an additional 305 staff, to meet the goal of 1 patrol officer per 1,000 persons. Additional patrol officers would also require additional patrol cars and facilities to house the cars and staff. Impacts associated with construction of new facilities would be reduced under Alternative 2 because there would be less new development in comparison to the proposed project. Impacts to law enforcement services under this alternative are considered *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: FIRE PROTECTION AND EMERGENCY SERVICES

Similar to Alternative 1, the increases in demand for fire protection services and emergency services would be less under Alternative 2, as compared to the proposed project. New fire stations would not be needed in the Grant Line East New Growth Area and within the 4,000 removed acres of the Jackson Highway Corridor, which would result in less construction-related impacts to natural resources located in these areas, as compared to the proposed project. The General Plan contains policies that provide for facilities and funding for larger master plan developments. Impacts to fire protection services under this Alternative are considered *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: ENERGY FACILITIES AND SERVICES

Alternative 2 would result in nearly the same energy demands as Alternative 1. However, the need for expansion and/or construction of facilities to serve outlying areas would be reduced. Impacts under this alternative are *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: PARKS AND RECREATION

Under Alternative 2, no new parks would be constructed within the Grant Line East area or within the removed 4,000 acres of the Jackson Highway Corridor. Similar to Alternative 1, with the removal of Grant Line East, there would not be new development around the Prairie City SVRA, thus there would be less potential impacts as a result of increased development around the SVRA. The same mitigation applicable to the Project is applicable to the Alternative. Mitigation is recommended to ensure that impacts are *less than significant*.

MITIGATION MEASURES:

See PF-1.

ALTERNATIVE 3: MIXED USE

Alternative 3 would accommodate all new residential units (as projected by SACOG) within existing planned growth areas through mixed use projects in the existing urban sphere, and through development of under-utilized land. The purpose of this Alternative is to protect existing undeveloped open space, reduce vehicle miles traveled, and to consolidate development and the corresponding revenue to support existing services. This Alternative reduces the potential buildout target to 100,000 dwelling units.

Alternative 3 eliminates the Grant Line East and Jackson Highway Corridor New Growth Areas, as these areas are located outside the existing urbanized areas, on what is predominately undeveloped open space. The West of Watt New Growth Area is located within an urbanized area, on a highly traveled thoroughfare, and is included in Alternative 3. The Easton Planning Area is also a part of Alternative 3.

Alternative 3 assumes that if the General Plan does not identify new large growth areas, the inevitable need for new housing will result in increased focus on revitalization of existing urban areas and infill development.

IMPACT: SOLID WASTE

Under Alternative 3, there would be an increase in demand for solid waste services; however, this demand would be less than what is expected under the proposed project. Increases in demand would not be significant due to increases in recycling programs, transfer stations and compliance with AB 939 to reduce wastes by 50%. Kiefer Landfill would not be significantly impacted and has the capacity to meet demands **until 2035 or later** ~~until 2037~~. Under this Alternative, impacts to solid waste services are *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: PUBLIC SCHOOLS

Under Alternative 3, increases in development throughout the County would potentially impact all school districts in the County by causing increases in student populations to existing schools. The General Plan includes policies to accommodate for growth and increased service demands. These policies include land dedications or reservations for new schools, and specific plans must show locations of future school sites. Alternative 3 does not identify large new growth areas, and relies on revitalizing existing urbanized areas and infill development. With this type of growth, new school sites will not be identified and land dedications cannot be made, which will cause impacts to existing schools due to increased student populations. However, with established case law, Goleta Union School District v. The Regents of the University of California (36 Cal-App. 4th 1121, 1995), it was found that school overcrowding, standing alone, is not a change in the physical conditions, and cannot be treated as an impact on the environment.

Additionally, developer fees under SB 50 and school facilities mitigation under California Government Code, would serve as complete CEQA mitigation for the impacts of increased development on school facilities. Impacts to public schools under Alternative 3 would be considered *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: LIBRARIES

Increases in development under Alternative 3 would be Countywide, with increased densities within existing urban areas, in order to accommodate the buildout target of 100,000 dwelling units. Since Alternative 3 does not contain any of the proposed new growth areas, specific plans and master plans for new development will not be completed, thus no new libraries will be identified to meet the demands of increased populations. Library services would rely on the Sacramento Public Library Authority Facility Master Plan, which identifies renovation of existing libraries in order to meet projected needs of the community and construction of new libraries to accommodate new growth. The Master Plan assumes that the County will be 98 percent built out by 2025 and has identified new libraries planned for Sacramento County. The General Plan contains policies for funding for renovations to existing libraries and funding for new libraries and recommends the siting of libraries within well traveled areas, which is consistent with the Facility Master Plan. Impacts under Alternative 3 are considered *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: LAW ENFORCEMENT

Under Alternative 3, the potential buildout target is 100,000 dwelling units. With an increase of 100,000 dwelling units, at an estimate of 2.7 persons per household, the Sheriff's Department would need approximately 270 more officers to meet the 1 officer to 1,000 population ratio. Additional patrol officers would also require additional patrol cars and facilities to house the cars and staff. Impacts associated with construction of new facilities would be reduced under Alternative 3 because there would be less new development in comparison to the proposed project. The new facilities would also be located in areas that are predominantly already developed, and impacts to resources would be minimal. Impacts to law enforcement services under this alternative are considered *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: FIRE PROTECTION AND EMERGENCY SERVICES

Under Alternative 3, there would be increases in densities within the existing urban areas and increases in the demand for fire protection and emergency services. However, there would not be expansion out to current undeveloped areas. New development under Alternative 3 would rely on existing fire stations to meet fire protection and emergency service needs. The General Plan contains policies that allow, under discretion of the Board of Supervisors, the requirement of mitigation fees to fund adequate fire protection and emergency medical response if existing methods of financing are inadequate. The General Plan contains policies and measures to ensure that there is funding to provide adequate fire protection and emergency services and that buildings and neighborhoods meet the requirements of the California Fire Code and access and fire hydrants are adequate. These policies will ensure that impacts associated with growth and funding for adequate fire protection will be *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: ENERGY FACILITIES AND SERVICES

This Alternative would eliminate the need to expand energy delivery facilities to outlying areas. Additional energy savings could be realized through higher density and mixed-use developments. Impacts of this alternative are *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: PARKS AND RECREATION

Under Alternative 3, no new parks would be constructed within the Grant Line East or the Jackson Highway Corridor New Growth Areas. Similar to Alternatives 1 and 2, with the removal of Grant Line East, there would not be new development around the Prairie City SVRA, thus there would be less potential impacts as a result of increased development around the SVRA. The same mitigation applicable to the Project is applicable to the Alternative. Mitigation is recommended to ensure that impacts are *less than significant*.

MITIGATION MEASURES:

See PF-1.

5 SEWER SERVICES

INTRODUCTION

Sewer services in unincorporated Sacramento County are provided by the Sacramento Area Sewer District (SASD), which builds and maintains trunk lines, and the Sacramento Regional County Sanitation District (SRCSD), which builds and operates the interceptor lines and regional wastewater treatment plant. SRCSD was formed in 1973 to provide a regional wastewater conveyance, treatment, and disposal system for the entire urbanized area of the County of Sacramento. The purpose of forming the SRCSD was to eliminate all wastewater flows to the American River, to minimize raw sewage overflows to the Sacramento River, and to replace 17 separate wastewater treatment entities with one consolidated District with a centralized treatment facility. SRCSD is an independent political entity formed under the provisions of the County Sanitation District Act (California Health & Safety Code §4700ff). SRCSD and SASD are governed by a Board of Directors, whose members include the County of Sacramento Board of Supervisors and the mayors or designees of the cities of Sacramento, Citrus Heights, Elk Grove, Folsom, Rancho Cordova, West Sacramento (SRCSD only) and Yolo County (SRCSD only).

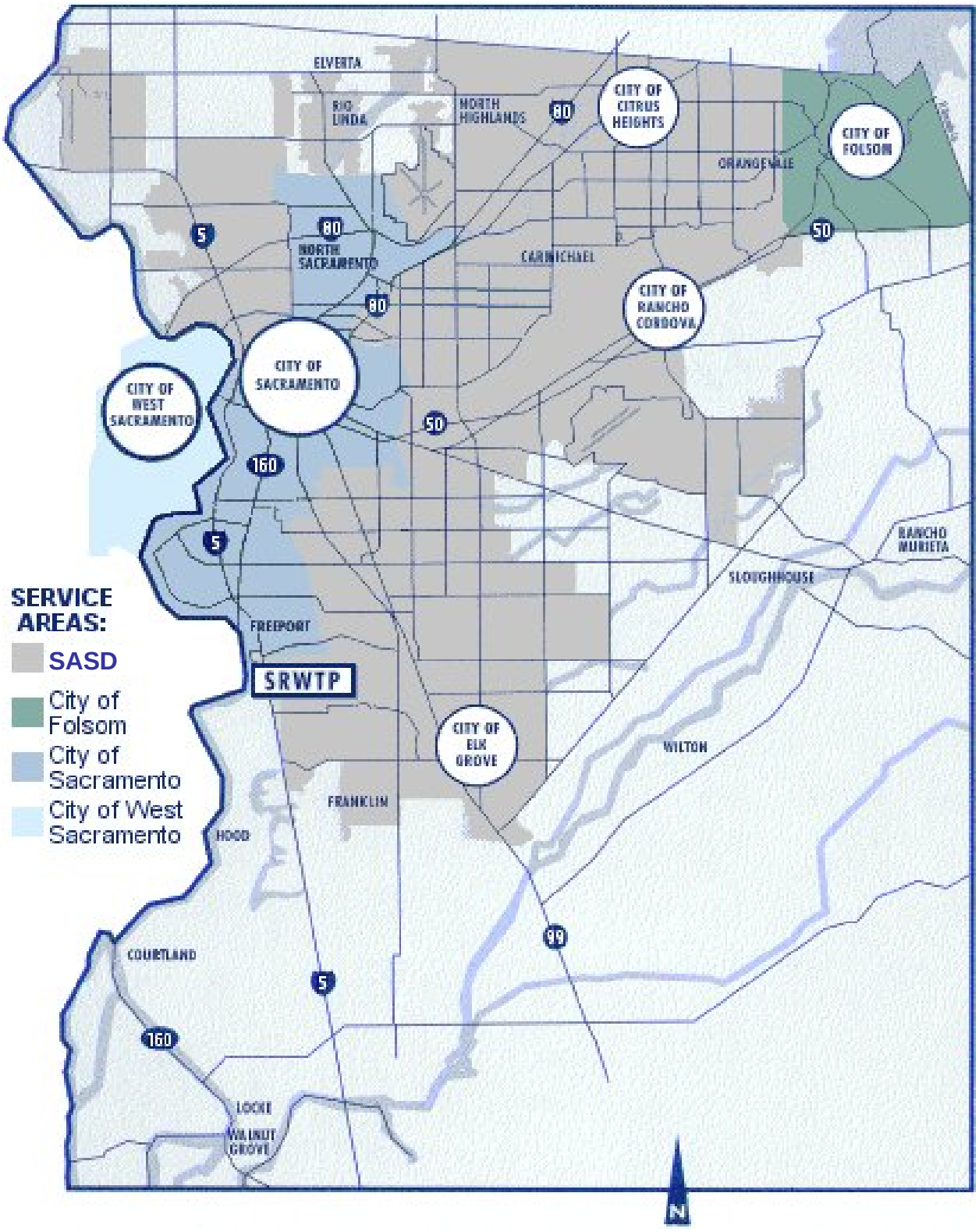
A result of the centralization of wastewater treatment services is the Sacramento Regional Wastewater Treatment Plant (SRWTP) constructed in the south part of the County at 8521 Laguna Station Road, near the ~~town of Freeport~~ **City of Elk Grove** and adjacent to Interstate 5 (**discharged near the town of Freeport)**. Sewage is routed to the wastewater treatment plant by the collections systems owned by SRCSD, **which itself was initially routed through local systems owned by SASD** and the cities of Sacramento and Folsom. The SRWTP is a high-purity oxygen-activated sludge facility, and is permitted to treat an average dry weather flow (ADWF) of 181 million gallons per day (mgd) and a daily peak wet weather flow of 392 mgd. After secondary treatment and disinfection, a portion of the effluent from the plant is further treated in SRCSD's Water Reclamation Facility and then used for **non-potable purposed, such as** landscape irrigation**,** within **select areas of** the City of Elk Grove **and the SRWTP**. The majority of the treated wastewater is dechlorinated and discharged into the Sacramento River.

SRCSD provides wastewater treatment for more than one million residents within a 435-square mile area within Sacramento County. Plate SE-1 illustrates the existing SRCSD service area within the County. The service area covered by SRCSD generally encompasses the Sacramento Metropolitan area, including the cities of Sacramento (portion), Citrus Heights, Elk Grove, Folsom, Rancho Cordova and West Sacramento. The City of Folsom is responsible for collection system operation and maintenance within its city limits. The City of Sacramento is responsible for operation and maintenance of portions of the collection system within its city limits. SASD is

responsible for the **local** collection system and maintenance in the cities of Citrus Heights, Courtland, Walnut Grove, Elk Grove, Rancho Cordova, portions of the City of Sacramento, Rio Cosumnes Correctional Center (RCCC), and the unincorporated areas of Sacramento County. Plate SE-1 includes the existing SASD service area in Sacramento County. The City of West Sacramento is responsible for operation and maintenance of its collection system and its wastewater is conveyed through the Lower Northwest Interceptor to the SRWTP for treatment.

The 1993 Sacramento County General Plan identifies the Urban Services Boundary (USB) as the ultimate boundary of urban development in the unincorporated County. The USB is intended to be used by urban infrastructure providers for developing very long-range master plans that can be implemented over time as the urbanized area expands within the USB. The Urban Policy Area (UPA) is also indentified in the 1993 County General Plan as the area expected to receive urban levels of public infrastructure and services within the 20-year planning period of the General Plan. The UPA is proposed to be expanded by the proposed General Plan Update. An important concept is that while the Master Plans cover the area within the UPA, facilities are generally sized to accommodate growth expected within the USB. The following is a summary of those master plans relevant to the proposed General Plan Update.

Plate SE-1 SRCSD Service Area (includes all listed areas)



SACRAMENTO REGIONAL WASTEWATER TREATMENT PLANT MASTER PLAN 2020

The purpose of the SRWTP Master Plan is to identify wastewater treatment and facility needs for a 20-year planning period, which lasts through the year 2020. The SRWTP master plan's goal is to provide a phased program of recommended facilities to accommodate planned growth while at the same time maintaining treatment reliability, meeting future regulatory requirements, and optimizing costs. To meet this goal, a 2020 Master Plan was prepared that integrated overall strategies for wastewater treatment, effluent management, and biosolids disposal into an effective wastewater treatment management program. The 2020 Master Plan proposed that treatment facility expansion occur in stages or phases as the sewage generated by the population increases. The capacity of the plant would increase under this plan from 181 mgd to 218 mgd (dry weather). The treatment plant is not designed to accommodate wet weather flows. During wet weather events (2-year, 10-year, and 100-year storm events), effluent must be stored (either in emergency storage basins or within the interceptors) because SRWTP cannot discharge effluent into the river. The storage basins and interceptors are designed to provide adequate capacity to accommodate wet weather flows.

The SRCSD Board of Directors approved the SRWTP Master Plan 2020 in **summer of 2004** ~~fall of 2003~~. In November 2007, the Superior Court of California invalidated portions of the Environmental Impact Report that was certified for the 2020 Master Plan. Both the SRCSD and the plaintiffs have appealed the judge's ruling. Expansion of the SRWTP beyond the permitted capacity would not occur until after a Master Plan has been approved consistent with the result of the appellant decision. These appeals remain in litigation at the time of this analysis.

INTERCEPTOR MASTER PLAN 2000

The purpose of the Interceptor Master Plan 2000 is an update of the 1993 – 1994 Sacramento Sewerage Expansion Study (SSES) to more accurately predict existing and future capacity needs in the regional interceptor system and provide a strategic approach to plan for these capacity needs. To update and refine the regional conveyance facilities, the master plan updates the service area, growth projections, existing system response to rainfall, provides dynamic modeling, estimates the cost of facilities, identifies right-of-way acquisition needs, and identifies near and long-term improvements required for regional wastewater conveyance. A master plan for the interceptor system is essential to accommodate approved developments and avoid interruption of the service to developing areas. The Master Plan 2000 identifies land use and population projections based on SACOG Blueprint Criteria, and land use plans of the member jurisdictions. The Plan also includes wastewater flow estimates, information on hydraulic modeling, interceptor design criteria, and identifies conveyance systems and policies to accommodate planned growth. The SRCSD Board of Directors approved the Interceptor Master Plan 2000 in March 2003.

The SRCSD is currently evaluating whether to update the Interceptor Master Plan 2000. District staff (S. Deeble) stated the following regarding an update to the Interceptor Master Plan 2000:

> SRCSD is currently working on an Interceptor Sequencing Study to evaluate the Interceptor Master Plan 2000 (MP 2000) and determine when the next master planning document will be developed. Ideally, SRCSD will complete a Master plan on a 5-year cycle one year after a CSD-1 (now a SASD) master planning efforts.

The SASD Master Plan 2006 Update was approved by the Board of Directors in October 2008 (see discussion below).

SACRAMENTO AREA SEWER DISTRICT SEWERAGE FACILITIES EXPANSION MASTER PLAN

In order to effectively plan and budget for capital improvement needs, SASD adopted and periodically updates a facilities master plan. The master plan is broad based and addresses policy issues, improvements to the existing sewer system to alleviate deficiencies, and sewer trunk expansions to accommodate new development areas. This Master Plan was approved by the Board of Directors in May of 2004.

SASD SEWERAGE FACILITIES EXPANSION MASTER PLAN 2006 UPDATE

A 2006 CSD-1 Sewerage Facilities Expansion Master Plan Update (renamed SASD Sewerage Facilities Expansion Master Plan Update) had been prepared and approved by the Board of Directors in October, 2008. The Master Plan Update is a companion document to the previously approved Sewerage Facilities Expansion Master Plan discussed above. The master plan update evaluates future areas of expansion and revises relief projects approved in the previous master plan. Many of the facilities previously approved in the CSD-1 Sewerage Facilities Expansion Master Plan have been constructed. In addition, the Master Plan Update incorporates the Upper Deer Creek, Lower Deer Creek and Upper Laguna Creek sewer sheds that were not evaluated in the previous master plan. The service area is proposed to expand from 268 square miles to 281 square miles with the update. Consequently, the number of miles of pipeline and the number of customers served is anticipated to increase.

Land use categories are of relevance to the Master Plan update effort, in that projected unit wastewater flow rates for future development are based on the types of land uses and their respective densities. The Master Plan Update used 13 land use categories for developing wastewater flow estimates for potential build-out conditions. The land use categories were developed during stakeholder sessions with the county, various cities, developers, and interested parties. The wastewater generation estimate was expressed in the equivalent of single-family dwelling units (ESDs) per acre, where one ESD represents the wastewater generation equivalent of one single-family residence. Flow

estimates for an ESD are 310 gallons per day. The ESD's for each of the 13 land uses are found below (Table SE-1).

Table SE-1 Land Use Categories, Design ESD Densities, and Flow Estimates

Land Use Code	Description	ESDs per acre	Flow Estimates (gpd)
AG	Agricultural	6	1,860
VLSRI	Agricultural Residential	6	1,860
VLDR2	Very Low Density Residential	6	1,860
LDR1	Low Density Residential	6	1,860
LDR2	Medium Low Density Residential	10	3,100
MDR1	Medium Density Residential	15	4,650
MDR2	Medium High Density Residential	22	6,820
HDR	High Density Residential	30	9,300
COM	Commercial/Office	6	1,860
IND	Industrial	6	1,860
PQP	Public/Quasi-Public/Schools	6	1,860
Mixed	Mixed/Special Planning Areas/Urban Reserve	6	1,860
Open	Open Space, Recreation, Parks, Cemeteries	~~0~~ **6**	~~0~~ **1,860**

Source: CSD-1 Sewerage Facilities Expansion Master Plan 2006 Update, pages 2-9 and 2-10 **and SASD Design Standards (dated February 13, 2008, page 22, section 3.1.7.**

RELATIONSHIP BETWEEN THE MASTER PLANS

In summary, the relationships between the SRWTP, SRCSD, and SASD master plans are as follows:

- The purpose of the SRWTP 2020 Master Plan is to provide a phased program of recommended facilities to accommodate planned growth while maintaining

treatment reliability, meeting future regulatory requirements, and optimizing costs.

- The purpose of the Interceptor Master Plan 2000 is to update and refine planned regional conveyance facilities identified in the 1993-1994 SSES (in terms of service area, growth projections, existing system response to rainfall, dynamic modeling, estimated cost of facilities and right of way acquisition) and identify near and long-term improvements needed for the regional wastewater conveyance system.

- The overall goal of the SASD Master Plan and Master Plan Update is to plan for future needs for the trunk sewer system, including relief projects for existing areas and expansion projects to serve areas of new development.

All of these master plans are incorporated by reference and can be viewed at County of Sacramento, Department of Environmental Review and Assessment, 827 7th Street, Room 220, Sacramento, CA 95814; the Sacramento Regional County Sanitation District, 10545 Armstrong Avenue, Suite 101, Mather, CA 95655; or online: the CSD-1 Master Plan at *http://www.csd-1.com/dev-res.html#mp; the SRCSD Master Plan 2000 at http://www.srcsd.com/simp2000.html; and the SRCSD SRWTP 2020 Master Plan at http://www.srcsd.com/srwtp-2020mp.html.*

WATER RECYCLING PROGRAM

SRCSD**, in partnership with the Sacramento County Water Agency (SCWA),** has a small-scale non-potable water recycling program, but the District is evaluating the feasibility of a large-scale program. **SRCSD is responsible for producing and wholesaling recycled water to SCWA, while the SCWA is responsible for retailing the recycled water to selected customers.** SRCSD's small-scale water recycling program began to serve communities in ~~southern Sacramento County~~ **the City of Elk Grove** in 2003. **Recycled water is also used at the SRWTP.** The existing Water Reclamation Facility (WRF) Phase 1 at the wastewater treatment plant ~~generates~~ **has a design capacity of** 5 mgd of recycled water**, which is used in-lieu of potable water for non-potable purposes, such as** for landscape irrigation~~, agricultural irrigation, and industrial uses~~. This facility was constructed to be expanded as demand increased.

In January 2004, the SRCSD Board of Directors approved the concept of a Water Recycling Program that includes the following goals:

- Increase water recycling throughout the Sacramento region on the scale of 30 – 40 mgd over the next 20 years.

- Increase utilization of recycled water to expand SRCSD's effluent management options beyond continued discharge to the Sacramento River.

- Increase utilization of recycled water to meet growing non-potable demands, allowing Sacramento area water purveyors to reduce demands on their existing high quality water supplies and reduce the need for additional water supplies in the future.

To evaluate the feasibility of implementing a large-scale water recycling program, SRCSD began preparation of its Water Recycling Opportunities Study (WROS) in November 2004 **and completed the WROS in February 2007**. The WROS does the following:

- Studies areas throughout the Sacramento Region and SRCSD service area to identify potential water recycling opportunities,
- Engages potential water recycling partners and stakeholders,
- Develops, assesses, and prioritizes potential water recycling projects, and
- Provides a strategy to further develop and implement the project initially selected to move forward in achieving the stated goals of the large-scale Water Recycling Program.

At the time of this writing, the WROS are simply goals and objectives. Implementation of a large-scale Water Recycling Program that may include short-term and long-term strategies with multiple partners and jurisdictions can become quite complex. The WROS provides a roadmap outlining and sequencing the major steps for short-term and long-term implementation strategies. **The WROS identifies goals and objectives, and evaluates potential water recycling opportunities at a high planning level. The actual implementation of any of these opportunities is yet to be determined and depends on many factors, such as participation of all key stakeholders, permitting requirements, and financial feasibility.**

EXISTING CONDITIONS

SRCSD's and SASD's approved Sphere of Influence (SOI) in Sacramento County is the area officially designated for its future service planning effort. This area corresponds to the General Plan's Urban Services Boundary (USB), with the exception of the areas served by the Cities of Sacramento (portions), the Folsom sewer system and Rancho Murieta. RCCC and the Delta communities of Courtland and Walnut Grove, while outside of the USB are serviced by SASD and SRCSD. SRCSD also serves the City of West Sacramento.

The main SASD collection system includes over 2,800 miles of sewer pipelines ranging in size from four to 75 inches in diameter that deliver sewage to the interceptor system operated and maintained by SRCSD. SRCSD interceptors are a very large system of pipes (up to 10 feet in diameter), which carry wastewater directly to the SRWTP. At

times of peak use, the interceptor system carries as much as 400 million gallons of wastewater per day. SRCSD currently has 123 miles of interceptor pipe including 30 miles of force mains and 9 major pumping stations. This does not include proposed interceptors or interceptors currently in construction. The SRWTP receives and treats approximately ~~140~~ **141** mgd average dry weather flow (Seyfried, 2008). Previously, the existing wastewater flow at the SRWTP was about 150 mgd average dry weather flow, but appears to have been reduced due to water conservation efforts, dry weather and other unknown factors. The SRWTP has a permitted average dry weather flow design capacity of 181 mgd and wet weather flow of 392 mgd. Wet water flows include groundwater infiltration and rainfall-dependent infiltration/inflow and are, therefore, greater than dry weather flows.

REGULATORY SETTING

FEDERAL

CLEAN WATER ACT

Construction of wastewater infrastructure and facilities may have impacts (erosion and sedimentation) that would be regulated by the Clean Water Act. The 1972 amendments to the federal Clean Water Act prohibit the discharge of pollutants to navigable waters from a point source unless the discharge is authorized by a National Pollutant Discharge Elimination System (NPDES) permit. The Clean Water Act requires NPDES permits for stormwater discharges caused by general construction activity. The purpose of the NPDES program is to establish a comprehensive stormwater quality program to manage urban stormwater, reducing pollution of the environment as much as possible. The NPDES program involves characterizing the quality of receiving water, identifying harmful constituents, targeting potential sources of pollutants, and implementing a comprehensive stormwater management program. NPDES permits are issued by the Regional Water Quality Control Board.

SAFE DRINKING WATER ACT

The federal Safe Drinking Water Act established a national program to protect the quality of drinking water available from municipal and industrial water suppliers. The act establishes a program requiring compliance with national drinking water standards for contaminants that may have an adverse effect on human health. It also establishes programs to protect potable groundwater from contamination.

STATE OF CALIFORNIA

PORTER-COLOGNE WATER QUALITY CONTROL ACT

The Porter-Cologne Act requires the California State Water Resources Control Board (State Water Resources) to adopt water quality control plans and set waste discharge requirements (WDRs) for dischargers into surface and groundwaters. The Central Valley Regional Water Quality Control Board (Regional Water Board) is responsible for administering and enforcing WRDs, permits, and water quality control plans.

WATER QUALITY CONTROL PLANS

NPDES permits and Erosion Control Programs are required for the construction of infrastructure and pumping facilities. The Clean Water Act requires that water resources be protected from degradation caused by waste discharges and requires that identified beneficial uses be maintained. The Regional Water Board's Water Quality Control Plan for the Central Valley Region identifies the designated beneficial uses of groundwater and surface water bodies and contains water quality objectives and standards established to protect those uses.

The County of Sacramento received a municipal NPDES permit for stormwater discharges from the Central Valley Regional Water Quality Control Board. Under this permit, permittees are required to develop, administer, implement, and enforce a Comprehensive Stormwater Management Program (CSWMP) in order to reduce pollutants in urban runoff to the maximum extent practicable. The CSWMP implemented by the city and county is a multi-faceted, dynamic program which is designed to reduce stormwater pollution to the maximum extent practicable. The CSWMP emphasizes all aspects of pollution control including but not limited to public awareness and participation, source control, regulatory restrictions, water quality monitoring, and treatment control.

The Sacramento Stormwater Management Program has developed the January 2000 Guidance Manual for On-Site Storm Water Quality Control Measures. The Guidance Manual contains the 2000/2001 Progress Report that provides general conditional language used to require development projects to incorporate erosion and sediment controls and on-site stormwater quality control measures. For public and quasi-public projects, mitigation requiring the project to comply with the County's Land Grading and Erosion Control Ordinance is required.

In addition to construction/stormwater impacts, the Water Quality Control Plan for the basin contains specific numeric water quality objectives for bacteria, dissolved oxygen, pH, pesticides, electrical conductivity, total dissolved solids, temperature, turbidity, and trace elements, as well as numerous narrative water quality objectives, that are applicable to certain water bodies or portions of water bodies (Sacramento River). In 2002, the Regional Water Board completed review of their basin plan that resulted in amendments that: 1) update bacteria objectives for water contact recreation; 2) clearly state that a basin planning process will be used to designate or change designated

beneficial uses; and 3) update language in the basin plan. The three districts that move and treat wastewater effluent for Sacramento County are responsible for compliance with Regional Water Board's Water Quality Control Plan's discharge requirements.

State Water Resources Resolution No. 68-16 Statement of Policy with Respect to Maintaining High Quality Waters in California

The goal of State Water Resources Resolution No. 68-16 (Statement of Policy With Respect to Maintaining High Quality Waters in California") is to maintain high quality waters where they exist in the State. State Board Resolution No. 68-16 States, in part:

- "Whenever the existing quality of water is better than the quality established in policies as of the date on which such policies become effective, such existing high quality will be maintained until it has been demonstrated to the State that any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that prescribed in the policies.

- Any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained."

The State Water Resources has interpreted Resolution No. 68-16 to incorporate the federal anti-degradation policy, which is applicable if a discharge that began after November 28, 1975 will lower existing surface water quality.

Water Reclamation Regulations

Wastewater reclamation in California is regulated under Title 22, Division 4, of the California Code of Regulations. The intent of these regulations is to ensure protection of public health associated with the use of reclaimed water. The regulations establish acceptable levels of constituents in reclaimed water for a range of uses and prescribe means for assurance of reliability in the production of reclaimed water. The California Department of Health Services (DHS) has jurisdiction over the distribution of reclaimed wastewater and the enforcement of Title 22 regulations. The Regional Water Board is responsible for issuing waste discharge requirements (including discharge prohibitions, monitoring, and reporting programs).

Sacramento County General Plan: Existing and Proposed

The proposed General Plan does not include any changes to policies and implementation measures which pertain to the provision of wastewater collection and

treatment. The 1993 Sacramento County General Plan policies that are pertinent to this chapter and will be carried forward into the proposed General Plan are policies PF-6 through PF-18.

SIGNIFICANCE CRITERIA

The following significance criteria is based on State CEQA Guidelines (2007) Appendix G:

> Require or result in the construction of new wastewater conveyance or treatment facilities or expansion of existing facilities, the construction of which could potentially cause significant environmental effects.

METHODOLOGY

The master plans for SRCSD, SASD, and SRWTP as well as discussions with representatives of the districts, and existing SRWTP treatment plant flows were used to establish a base case against which land use changes resulting from the proposed General Plan are evaluated, to determine if capacity is available. The master plans were based on SACOG blueprint population projections, land use designations, flow contributions, and changes to the conveyance system. However, the master plans are dynamic in that they are intended to be updated to meet changing demands. As development occurs in the District's service area and flows to SRWTP increase, SRCSD will review the SRWTP Master Plan to determine if additional facilities are needed. The SRCSD and SASD master plans are phased and include buildout development of the Urban Services Boundary. Since the master plans are inter-related, a comparison of the expected wastewater flows and facilities adequacy between the 1993 General Plan, year 2030 land uses and populations and the proposed General Plan and CEQA alternatives can be made.

The analyses below use two different calculation methods to determine impacts: per capita wastewater generation, and ESD wastewater generation. The wastewater treatment plant is designed to be expanded over time, to meet the needs of the population as it grows. The master planning for the wastewater treatment plant uses an average figure of 132.4 gallons per day (gpd), per capita and combines that figure with population projections to determine the needed capacity. Conveyance facilities are designed to meet the ultimate demand, not the incremental demand, because it would be inefficient and costly to install pipes and then have to re-excavate them again periodically to increase their size. Master planning for conveyance facilities uses the total acreage of a proposed growth area and applies an ESD figure to that land to determine the potential ultimate flows that may result.

IMPACTS AND ANALYSIS

COMMERCIAL CORRIDORS AND INFILL

The intensification of selected commercial corridors with multi-family and commercial uses would result in the generation of more wastewater flow than what would occur under the 1993 General Plan and under existing conditions. According to Sacramento Area Sewer District staff (Meyer), local and trunk sewer lines located in these corridors may not have the capacity to convey this additional flow to the Interceptors. To accommodate these land uses, sewers lines may need to be enlarged or additional lines constructed along with other facilities, such as pumping stations. The exact sewer infrastructure requirements would not be known until a specific land use proposal is considered; however, the design and construction of the sewer infrastructure will fall under the guidelines and mitigation measures of the SASD and SRCSD Master Plans . A small sewer study would be necessary in many cases to determine the effects of new proposed development within the Commercial Corridors. The purpose of the sewer study would be to determine the appropriate pipe sizes to serve the proposal.

The sewer line infrastructure projects can be expected to result in potentially significant construction related environmental impacts, including traffic congestion, sedimentation in stormwater runoff, air quality impacts from soil disturbance and construction equipment emissions, noise impacts to nearby residents and businesses, and the short term loss of corridor landscaping and other amenities. Mitigation measures can be implemented to reduce these potential impacts, possibility to less than significant levels, but site specific details of these mitigation measures would be identified at the time detailed infrastructure projects are identified. Mitigation measures that have been successfully used to reduce impacts from similar projects include the adoption of traffic control plans to minimize congestion, working during off peak traffic periods, the use of noise barriers to significantly reduce noise levels at nearby receptors and emissions reductions resulting from the use of less polluting construction equipment and the application of dust controlling agents. Sewer lines to service commercial corridors will be serviced and operated by SASD, but constructed by the project developer.

Additional wastewater flow would need to be treated at the SRWTP as a result of the commercial corridors intensification. The proposed General Plan indicates that the Commercial Corridors could add up to 19,000 housing units, and that infill could include an additional 10,000 to 18,000 units. Based on current Sacramento County census estimates of 2.7 people per single-family home, the Commercial Corridors and infill areas will accommodate approximately 99,900 people. Based on 132.4 gpd per capita, the planning areas will generate 13.2 mgd that must be accommodated by the treatment plant. This will increase existing treatment plant flows from ~~140~~ **141** mgd to 153.2 mgd, which is within the plant's existing 181 mgd capacity. Singularly, the Commercial Corridors and infill strategies will not exceed wastewater treatment plant capacity. Refer to the Summary of Impacts section for the combined wastewater treatment plant effects of the General Plan growth strategies.

Sewer service conveyance facility impacts associated with implementation of the Commercial Corridors and infill strategies are considered potentially significant, because it is possible that upgrades to facilities will be required. This impact can be reduced to *less than significant* levels with the implementation of the following mitigation measure and the implementation of previously adopted mitigation measures contained in the SRCSD, SASD, and SRWTP Master Plans.

BUILDOUT OF PLANNED COMMUNITIES

Each of the master planning areas that the Project assumes will reach buildout by 2030, including Elverta, East Antelope, Vineyard Springs, North Vineyard Station, and Florin Vineyard "Gap", included sewer studies and review of the projects by SRCSD and SASD as part of the EIRs prepared for the projects. Mitigation was included, as appropriate, and will ensure that development in these areas meets the requirements of the Master Plans for SRCSD and SASD as discussed in the "Relationship Between the Master Plans" section above.

The East Antelope community is already mostly complete, but the remaining planned communities are only partially developed. The Environmental Impact Report prepared for Elverta indicates that the community will contribute 6.1 mgd (ADWF), and the analysis for Florin Vineyard "Gap" indicates that the community will contribute 22.0 mgd (ADWF). The Environmental Impact Reports for Vineyard Springs and North Vineyard Station calculated peak wet weather flows. For consistency, this EIR estimates their flows using the same methodology used for the New Growth Areas. At 1,590 acres North Vineyard Station will contribute an estimated 3.0 mgd (ADWF) and at 2,560 acres Vineyard Springs will contribute an estimated 4.8 mgd (ADWF).

Table SE-2 Wastewater Contribution of Planned Communities

Community	mgd (ADWF)
Elverta	6.1
Florin Vineyard Gap	22.0
North Vineyard Station	3.0
Vineyard Springs	4.8
Total	*35.9*

The combined planned communities are estimated to contribute 35.9 mgd (ADWF) that will need to be accommodated by the conveyance facilities. This number is likely to be an overestimate, because portions of all these areas include existing development; however, it is a reasonable conservative estimate. As stated, each of these planned communities includes an Environmental Impact Report. The capacity of existing conveyance facilities in these areas and the additional facilities that would be needed within the planning areas were disclosed as part of the Environmental Impact Reports.

There are infrastructure master plans for each that address the needs of the communities, which are sufficient to offset any impacts.

The Sacramento County General Plan estimates that the planned communities will include an additional 35,000 households by the year 2030. Based on current Sacramento County census estimates of 2.7 people per single-family home, the areas will accommodate approximately 94,500 people. Based on 132.4 gpd per capita, the planning areas will generate 12.5 mgd that must be accommodated by the treatment plant. This will increase existing treatment plant flows from ~~140~~ **141** mgd to 152.5 mgd, which is within the plant's existing 181 mgd capacity. Singularly, the buildout of the planned communities will not exceed wastewater treatment plant capacity. Refer to the Summary of Impacts section for the combined wastewater treatment plant effects of the General Plan growth strategies.

Sufficient capacity is available at the treatment plant to accommodate these planned communities (most of which are approved) under the existing permitted capacity. This growth strategy's singular contribution of estimated wastewater flows is considered *less than significant*.

NEW GROWTH AREAS

Implementation of the Sacramento County General Plan Update for the New Growth Areas would substantially increase wastewater flows, and require additional infrastructure. This impact is considered potentially significant. The planning horizon used in the SRWTP~~, SRCSD~~ and SASD Master Plans is 2020**, and for the SRCSD Interceptor Master Plan it is full buildout of the service area**. For the periods between release of the master plans and year 2020, population projections were obtained from SACOG in 5-year increments. SACOG population projections are geo-referenced by minor zones that provide information on both the rate of growth and the location of expected development.

As previously stated, SRCSD and SASD wastewater flow estimates and ultimate buildout wastewater demands **for conveyance facilities** are calculated using an average equivalent single family dwelling units (ESDs) per acre, with one ESD representing the effluent generated by one single family residence. The ESD projections are based on gross acreage and used to determine the location and capacity of future wastewater conveyance facilities and trunk sheds. Project wastewater generation rate per ESD is 310 gallons per day and used for planning purposes. Pipes are sized to accommodate dry weather base wastewater flow, rain dependent inflow/infiltration, and gravity flow requirements. The SRCSD and SASD design criteria for pipe size is intended to be a guide during the preparation of future design specifications for construction. The size of the SRCSD interceptors is based on full buildout of the USB and is not related to any specific land use or designation. The actual size of the trunk lines is determined by the specific proposed land use. Potential environmental effects associated with wastewater system improvements could include, but are not limited to: construction and operational adverse air quality emissions; noise impacts; biological resource impacts to habitat, aquatic resources, and special status

species; impacts to aesthetics; impacts to cultural resources; geologic and hydrologic impacts from both construction and operation; potential impacts from hazardous materials; and environmental impacts resulting from growth inducement. These potential environmental effects have been addressed in the master plan's environmental documents for SRCSD and SASD and would apply to the new growth areas. Mitigation measures adopted with the master plans will be considered and implemented as required when specific projects are considered for approval by the SRCSD and SASD Board of Directors.

Sacramento County Code regulates public sewage systems within the County. The Code includes connections requirements, permits and applicable fees, design and operation requirements to ensure public safety and lessen environmental related impacts. Wastewater service provision for any development proposed under the General Plan is subject to regulatory review and compliance with any applicable wastewater Master Plans. The SRCSD and SASD Master Plans identify phasing for the new growth areas and financing mechanisms to implement recommended improvements. Capacity to accommodate buildout under the proposed General Plan Update would be available in the sewer conveyance facilities subsequent to extension of services and/or upsizing of existing facilities. Many of the expansion and upsizing (relief) projects that may be need to implement the General Plan Update were approved in each sewer districts respective master plan. SRCSD staff (Meyers) stated that sufficient capacity will be available in the system to accommodate wastewater flows generated by the Jackson Highway Corridor and Grant Line East areas subsequent to design and completion of the SRCSD approved projects, which extend to the perimeters of the USB.

The master plans for SASD and SRCSD have a service area that includes the Jackson Highway Corridor and Grantline East growth areas. The master plans illustrate pipeline alignments and include a capital improvement program that includes the two growth areas. The environmental effects of the currently anticipated wastewater facility improvements have been evaluated in the EIRs for the treatment plant and the two sanitary district master plans reference above. However, future growth may require modification and expansion of currently planned wastewater facility improvements. The physical effects of constructing new trunk systems and treatment facilities will be analyzed under separate environmental documents when design specifications are developed. Potential environmental effects associated with additional wastewater facility expansion include, but are not limited to, air quality, biological resources, cultural resources, hazardous materials, land use, noise, traffic, visual resources, waste management, water resources, soil resources and health hazards.

As shown in Table SE-3, the proposed Jackson and Grantline East growth areas would generate approximately 37.2 mgd (ADWF) for conveyance. The West of Watt Avenue Growth Area would contribute approximately 38,910 gallons (0.039 mgd) of wastewater for conveyance when fully developed consistent with the proposed General Plan. According to the Easton Final Environmental Impact Report, the Easton project will contribute approximately 3.2 mgd (ADWF). The total additional flows from all of the New Growth Areas will equal approximately 40.1 mgd (ADWF).

Table SE-3
Effluent for Delivery to SRWTP (Jackson Vision and Grantline East)

	Acreage of Proposed General Plan Growth Areas	Proposed General Plan (6 ESDs/Acre)	Effluent Gallons/Day (310 gpd /ESD)	Effluent Million Gallons/Day (mgd)
Jackson (1)	12,000	72,000	22,320,000	22.3
Grantline East (1)	8,000	48,000	14,880,000	14.9
Totals	*20,000*	*120,000*	*37,200,000*	*37.2*

Using maximum figures, the Sacramento County General Plan estimates that the New Growth Areas will include approximately 76,000 households by the year 2030. Based on current Sacramento County census estimates of 2.7 people per single-family home, the areas will accommodate approximately 205,200 people. Based on 132.4 gpd per capita, the New Growth Areas will generate 27.2 mgd that must be accommodated by the treatment plant. This will increase existing treatment plant flows from ~~140~~ **141** mgd to 167.2 mgd, which is within the plant's existing 181 mgd capacity. Singularly, the New Growth Areas will not exceed wastewater treatment plant capacity. Refer to the Summary of Impacts section for the combined wastewater treatment plant effects of the General Plan growth strategies.

Sufficient capacity is available at the treatment plant to accommodate the proposed the General Plan's new growth areas under the existing permitted capacity. Additional conveyance facilities will be necessary to accommodate the additional growth, but the SASD and SRCSD has planned for the need for these facilities. There will be development impacts associated with construction of the facilities, but no impacts beyond those already discussed in all the other chapters of this EIR are expected. Financing plans will be required as part of the New Growth Areas to ensure that funding is available to construct the improvements; existing General Plan policy requires the master planning and financing of infrastructure, including sewer. The General Plan Update's singular contribution of estimated wastewater flows is considered *less than significant*.

SUMMARY OF IMPACTS

As previously described, in November 2007, the Superior Court of California invalidated portions of the Environmental Impact Report that was certified for the Sacramento Regional Wastewater Treatment Plant 2020 Master Plan. Both the SRCSD and the plaintiffs have appealed the judge's ruling. A final decision regarding the judge's decision is not expected until late in 2009. The 2020 master plan proposed to expand the treatment capacity of the plant from 181 mgd average dry weather flow to 218 mgd. As noted above, the SRWTP currently receives and treats approximately ~~140~~ **141** mgd (Seyfried, 2008).

Combined, the various growth strategies will result in a minimum of 76 mgd (ADWF) that must be accommodated by conveyance facilities and 52.9 mgd that must be accommodated by the treatment plant. The existing flows at the treatment plant are ~~140~~ **141** mgd and permitted flows are 181 mgd. The proposed Project will increase existing flows to ~~192.9~~ **193.9** mgd, which exceeds the existing permitted capacity. If the lawsuit is resolved and the permitted capacity is expanded to 218 mgd (ADWF), there will be enough capacity to serve the Project. Also refer to the Regional Impacts section for further discussion on treatment plant expansion.

MITIGATION MEASURES:

SE-1. General Plan Policy PF-18 should be modified as follows to address corridor infrastructure environmental impact concerns: New development projects which require extension or modification of the trunk or interceptor sewer systems shall be consistent with sewer facility plans and shall participate in established funding mechanisms*. Prior to approval of a Commercial Corridor re-development plan, a sewer study and financing mechanism shall be prepared and considered along with the proposed Corridor re-development plan, in consultation with the Sacramento Area Sewer District.*

REGIONAL SETTING, IMPACTS AND MITIGATION MEASURES

SETTING

The cumulative regional setting for wastewater services is Sacramento County and the service boundaries of the SRCSD and SASD and the City of West Sacramento.

The Cities of Elk Grove, Rancho Cordova and Sacramento have recently adopted new General Plans that propose additional urban expansion. The CEQA Environmental Impact Reports prepared for these projects provide the following additional wastewater generation estimates for these growth proposals that contribute to the cumulative setting (Table SE-4), which are based on population projections (these may be overestimates, because the projections may include existing population rather than only new population): 194,453 residents in Elk Grove, 310,568 residents in Rancho Cordova, and 240,000 new residents in Sacramento. City of West Sacramento wastewater flows are limited to the existing 1990 General Plan urban growth area. The analysis focuses on treatment plant needs rather than infrastructure needs, because each there are separate sewer “basins” for the cities. These basins ultimately connect to some of the same interceptors as Project areas, but are mostly served by separate conveyance facilities. The primary issue is whether the treatment plant has capacity to treat the combined flows.

Table SE-4 Additional Wastewater Generation Estimates for Adopted General Plan Areas in SRWTP Service Areas – Treatment

Jurisdiction	Projected Per Capita Flows
City of Elk Grove	25.7 mgd average dry weather flow
City of Rancho Cordova	41.1 mgd average dry weather flow
City of Sacramento	31.8 mgd average dry weather flow

REGIONAL IMPACTS

Potential development constructed as a result of implementation of the General Plan land use designations for Sacramento County and incorporated cities will increase flows by as much as 151.5 mgd, for a total of ~~291.5~~ **292.5** mgd at the treatment plant. If the projected General Plan's wastewater flow is added to the projected wastewater flows from Elk Grove, Rancho Cordova and the City of Sacramento, the existing approved Master Plan capacity of 181 mgd and the proposed 2020 capacity of 218 mgd of the treatment plant is exceeded by ~~110.5~~ **111.5** and ~~73.5~~ **74.5** mgd, respectively. The General Plan's contribution to the need to expand the treatment plant capacity is considered significant and unavoidable in the short term. The Treatment Plant is designed to be "mirrored" and could, if necessary, provide for a treatment capacity of 350 mgd. The long-term capacity will be available to reduce the cumulative impact to less than significant. The recommended mitigation measure (SE-2) would not allow approval of a project if there were insufficient capacity at the treatment plant. Even with implementation of SE-2 and the denial of the County growth areas, the need to expand the treatment plant would remain significant and unavoidable on a cumulative basis because the projected wastewater flows from cities within the SRCSD service area are greater than the existing and proposed 2020 design capacity. Over time, this impact would be reduced to less than significant with the construction or expansion of a plant that accommodates capacity.

In addition to capacity impacts, there are indirect environmental effects identified in the three sewerage master plans associated with construction related air quality, water quality, traffic control, circulation, aesthetics, soils, cultural resources, hazardous materials and potential impacts to biological resources. Therefore, the cumulative impacts associated with the provision of sewer services are considered *significant and unavoidable.*

MITIGATION MEASURES:

See SE-1 and,

SE-2. The following policy shall be added to the General Plan: Extension or modification of trunk or interceptor sewer systems that are required for new developments shall be consistent with sewer facility plans and shall participate in an established funding mechanism. New development that will generate wastewater for treatment at the SRWTP shall not be approved if treatment

capacity at the SRWTP is not sufficient to allow treatment and disposal of wastewater in compliance with the SRWTP's NPDES Permit.

NO PROJECT ALTERNATIVE

Under this alternative, the proposed General Plan Update would not be adopted and the 1993 General Plan would continue to guide policy regarding sewer service. The adopted SRCSD, SASD, and SRWTP Master Plan would continue to guide design and construction of facilities. The No Project Alternative would result in a reduced population compared to the proposed General Plan, so wastewater generation would be reduced. Generation would be increased above existing levels by the amount indicated in the Planned Communities discussion and infill discussion, **and by the 3.2 mgd (ADWF) from Easton and an additional 3.0 mgd (ADWF) from Cordova Hills (based on 8,345 units at 2.7 persons per household).** Individual development under this alternative would be required to construct necessary infrastructure needed to serve that development and would be required to fund its fair share of other system-wide improvements to infrastructure needed for cumulative demand on those facilities. Because the demand for sewer service under this Alternative would be less than that of the proposed General Plan Update, its impact would be less severe compared to the proposed Project. Because the No Project Alternative ~~would involve development of land to current designations~~ **does not include the Commercial Corridors**, it is anticipated that Mitigation Measure SE-1 would not need to be added to policy. Under the No Project Alternative, the cumulative or regional impacts on the treatment plant would remain *significant and unavoidable* due to the projected wastewater flows of the cities of Sacramento, Elk Grove, and Rancho Cordova. The construction impacts associated with the regional impact scenario would remain *significant and unavoidable*.

ALTERNATIVE 1: REMOVE GRANT LINE EAST

Under this Alternative the Grant Line East New Growth Area would be eliminated with no other changes to the project description. The adopted SRCSD, SASD, and SRWTP Master Plans would continue to guide design and construction of facilities. The impacts of the Remove Grant Line East Alternative would be the same as those described for the project, except the sections on Grant Line East would not apply – this would reduce total Project sewer demand by 14.9 mgd (conveyance) and 8.2 mgd (treatment). The total Project contribution would be ~~184.7~~ **185.7** mgd, which slightly exceeds permitted capacity, but not the proposed capacity. On a regional basis, total demand would be ~~283.3~~ **284.3** mgd, which exceeds both existing and proposed capacity. Sewer service related impacts on a regional basis would remain *significant and unavoidable* because of the combined wastewater flows of the Project and the cities of Sacramento, Elk Grove, and Rancho Cordova. Construction impacts associated with the regional impact scenario would remain *significant and unavoidable.*

MITIGATION MEASURES:

See SE-1 and SE-2 above.

ALTERNATIVE 2: FOCUSED GROWTH

Under this alternative the Grant Line East New Growth Area would be eliminated and the eastern portion of the Jackson Highway Corridor New Growth Area would be eliminated with no other changes to the Project description. The adopted SRCSD, SASD, and SRWTP Master Plans would continue to guide design and construction of facilities. The impacts of the Focused Growth Alternative would be the same as those described for the project, except the sections on Grant Line East Growth Area and the eastern portion of the Jackson Highway Corridor Growth Area would not apply. This would reduce total wastewater demand by 29.78 mgd (conveyance) and 8.2 mgd (treatment). The total treatment need is not reduced as compared to Alternative 1 because the same number of people will be accommodated in the Jackson Highway Corridor – only the acreage of land involved is reduced. The total Project contribution would be ~~184.7~~ **185.7** mgd, which slightly exceeds permitted capacity, but not the proposed capacity. On a regional basis, total demand would be ~~283.3~~ **284.3** mgd, which exceeds both existing and proposed capacity.

Sewer service related impacts on a regional basis would remain *significant and unavoidable* because of the combined wastewater flows of the Project and the cities of Sacramento, Elk Grove, and Rancho Cordova. Construction impacts associated with the cumulative impact scenario would remain *significant and unavoidable.*

MITIGATION MEASURES:

See SE-1 and SE-2 above.

ALTERNATIVE 3: MIXED USE

Mixed Use Alternative impacts related to the Easton and West of Watt New Growth Areas as well as the Commercial Corridors and infill are the same as those described in the Project analysis. This Alternative would reduce total wastewater demand by 37.2 mgd (conveyance) and 25.0 mgd (treatment). The total Alternative contribution would be ~~167.9~~ **168.9** mgd, which does not exceed either existing or proposed capacity. This is the only Alternative, aside from the No Project, which results in a Project impact of less than significant related to treatment capacity. On a regional basis, total demand would be ~~266.5~~ **267.5** mgd, which exceeds both existing and proposed capacity.

The adopted SRCSD, SASD, and SRWTP Master Plans would continue to guide design and construction of facilities. Sewer service related impacts on a regional basis would

remain *significant and unavoidable* because of the combined wastewater flows of the Project and the cities of Sacramento, Elk Grove, and Rancho Cordova. Construction impacts associated with the cumulative impact scenario would remain *significant and unavoidable.*

MITIGATION MEASURES:

See SE-1 and SE-2 above.

6 WATER SUPPLY

INTRODUCTION

The following analysis addresses the ability of existing water purveyors, both public and private, to provide potable water to meet water supply demands resulting from the proposed General Plan and Alternatives to that project. The analysis focuses on those water purveyors directly affected by land use changes proposed for their service area. The analysis also addresses the potential effects caused by providing additional water supplies both on the local groundwater basins and as a result of the diversion of surface water.

ENVIRONMENTAL SETTING

As described in the proposed Sacramento County General Plan's Conservation Element's Water Supply Chapter, water to meet urban and non-urban demands primarily comes from surface water sources or local groundwater aquifers. Recycled or remediated water contributes a small fraction to the total supply. Twenty eight water purveyors supply water to customers within Sacramento County (see Plate WS-1). Seventeen of these water purveyors provide water service to the area that would be affected by the proposed General Plan's corridor and new growth area land use changes. The amount of water available to these purveyors to supply the proposed General Plan's land uses is defined by their individual water rights, surface water contracts, groundwater pumping limitations, and the infrastructure necessary to treat, pump, and deliver water.

The purveyors directly affected by the proposed General Plan's growth are located within areas of Sacramento County that have distinct geohydrologic conditions or other restrictions that affect their ability to provide water. The area north of the American River is underlain by the North Groundwater Basin (see Plate WS-2). The North Groundwater Basin has undergone significant pumping that resulted in an unacceptable groundwater elevation decline. As a result of this unacceptable groundwater decline, the basin is currently being managed by the Sacramento Groundwater Authority, which has adopted a groundwater management plan for the purpose of maintaining and protecting the basin's long term sustainable yield and quality consistent with the Sacramento Water Forum's objectives. These documents can by accessed at the following web addresses: www.sgah2o.org and www.waterforum.org.

Plate WS-1 Sacramento County Water Purveyors

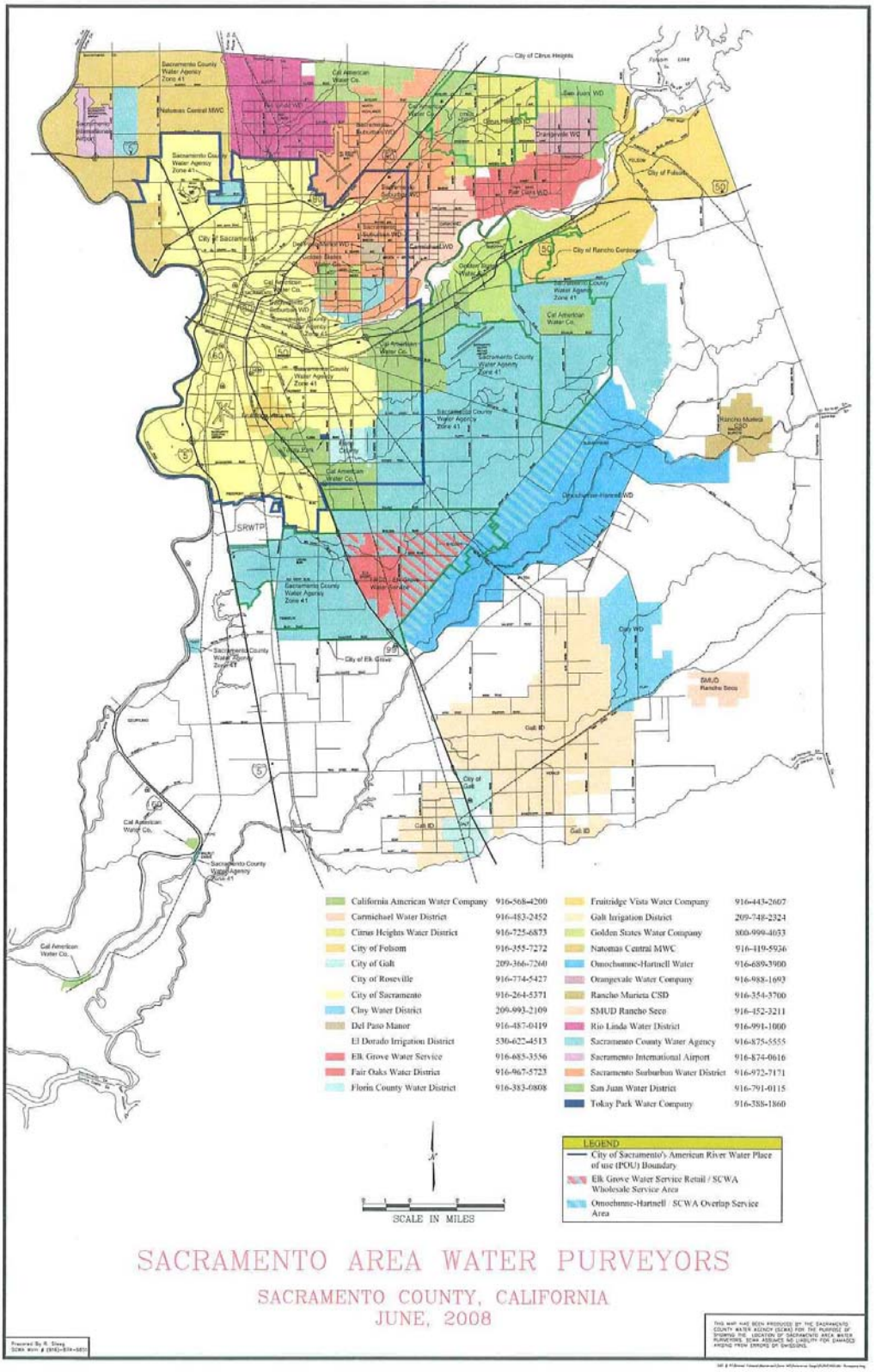
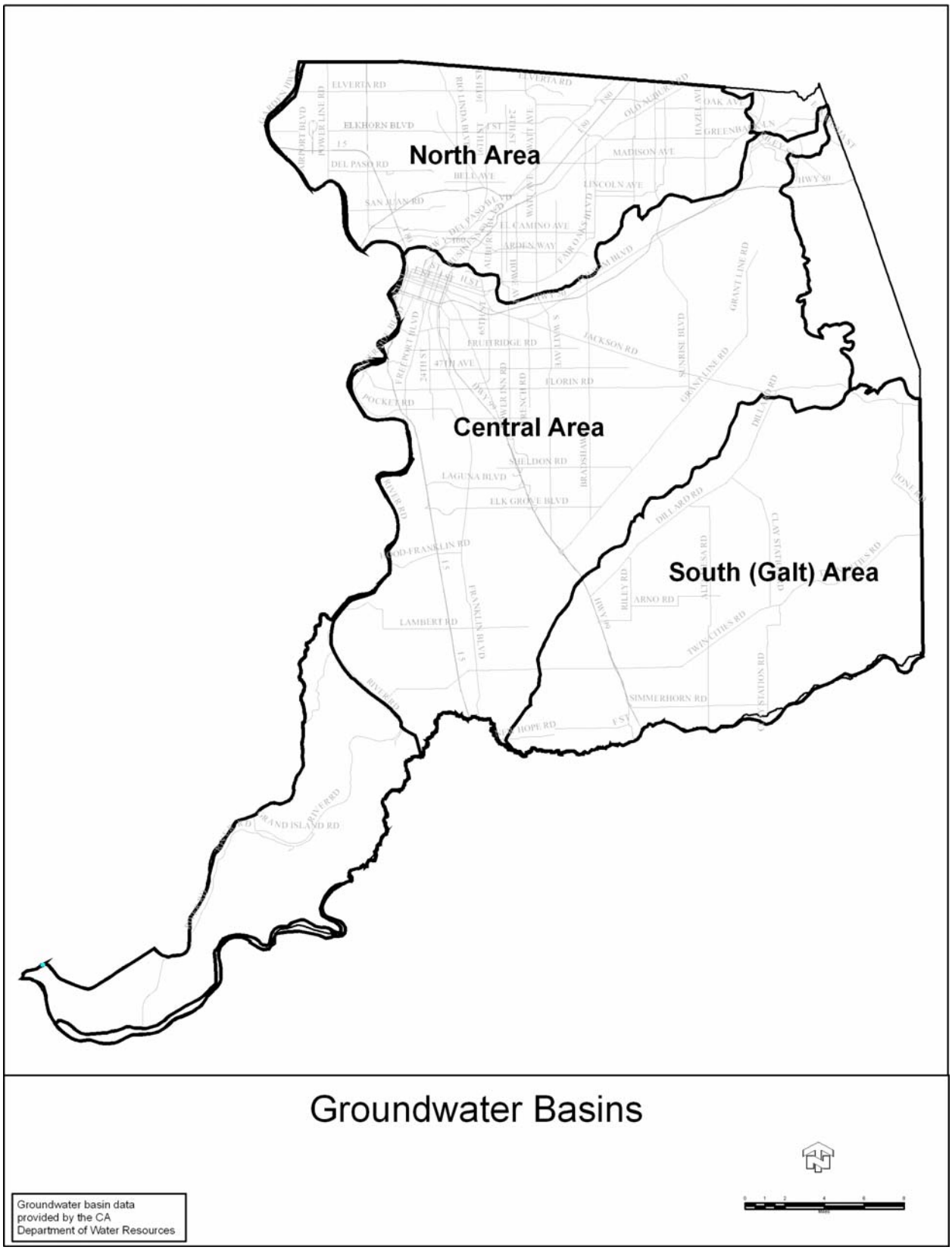


Plate WS-2 Sacramento County Groundwater Basins



Twelve water districts north of the American River are members of the Cooperating Agencies that created the American River Basin Regional Master Plan. The Plan is intended to serve as a mechanism to implement elements of a conjunctive water use program envisioned by the Sacramento Water Forum and conceptualized in the American River Water Resources Investigation. This document can be accessed at the following web address: www.sgah2o.org/rwa/programs/arbcup/ .

The area immediately south of the American River and north of the Cosumnes River is underlain by the Central Groundwater Basin (see Plate WS-2). Like the North Groundwater Basin, it was also subject to significant groundwater pumping and decline. The Central Basin is currently managed by the Sacramento Central Groundwater Authority, which has also adopted a management plan consistent with the Sacramento Water Forum objectives that addresses groundwater decline and quality in the Central Basin. The groundwater management plan for the Central Basin can be accessed at the following web address: www.scgah2o.org . Some of the water purveyors located within the central basin rely entirely on groundwater pumping and some purveyors' production wells have been affected by groundwater decline and contamination.

One other groundwater basin that exists in Sacramento County is designated the South Groundwater Basin (see Plate WS-2). As with the other groundwater basins to the north, a groundwater management plan consistent with Sacramento Water Forum objectives is currently being developed for this groundwater basin. The basin lies south of the Cosumnes River and is outside of land use changes resulting from the General Plan Update.

Because of these regional distinctions, the purveyors' service areas affected by the proposed General Plan are segregated into North Area and South Area, where a more detailed description and discussion of the purveyor's information occurs.

NORTH AREA

CALIFORNIA AMERICAN WATER COMPANY NORTHERN DIVISION

The California American Water Company Northern Division (CalAm) has eight service areas within Sacramento County. Of these eight service areas, five are subject to the proposed General Plan's infill policies, commercial corridors, or proposed growth areas. Because the Northern Division of CalAm serves customers north and south of the American River and has different sources of water, a discussion of CalAm service areas is found in both the North and South of American River sections of this setting, as appropriate. The three north of American River service areas affected by the proposed General Plan are described in the CalAm 2006 Urban Water Management Plan as follows:

ANTELOPE

The Antelope service area (PWS # 3410031) is located north of Antelope Road, extending generally two miles east and west of Watt Avenue. Most of the service area lies within Sacramento County, although a few customers are in Placer County. The area historically includes five subsystems: Antelope Oaks, Dutch Haven, Highland Estates, North County Park, and Saber City, a mobile home community in Placer County. The Antelope service area is supplied by groundwater from 18 active wells and several standby wells. The Lawrence Links Golf Course, located in the center of this service area is not served by CalAm. CalAm has about 10,000 customers in the Antelope service area. The Antelope system has inter-ties with the West Placer service area and with the Sacramento Suburban Water District to the south. The Antelope service area accounts for about 16% of the Northern Division's production.

ARDEN

The Arden service area (PWS # 3410045) lies north and south of Arden Way, west of Fulton Avenue and east of the California State Exposition grounds and the Sacramento City limits (along Ethan Way). The Arden area is primarily multi-family residential and commercial, and is nearly built-out. The service area lies a short distance north of the American River and draws from the North Area Groundwater Basin. The area is supplied from five wells. Discussions are underway with the City of Sacramento regarding a wholesale water supply agreement to provide treated surface water from nearby transmission facilities. If an agreement can be negotiated that is acceptable to both parties and is approved by the California Public Utilities Commission, surface water could be used in future average and wet years as part of regional conjunctive use programs as well as to enhance system reliability. In all, Arden has about 1,300 connections and accounts for about 4.5% of the Northern Division's production.

LINCOLN OAKS

The Lincoln Oaks service area (PWS # 3410013) lies just south the Placer County line, east of Walerga Road, north of Madison Avenue, and West of Auburn Boulevard. The system serves much of the community of Citrus Heights and many post-1960 subdivisions located on the east and west sides of I-80. The Lincoln oaks service area has about 14,000 connections supplied by groundwater from 21 active wells. The system has interties with the Citrus Heights Water District, City of Roseville, and the Sacramento Suburban Water District. The Lincoln Oaks service area accounts for about 21% of the Northern Division's production.

The demand and supply reported in Table WS-1 and Table WS-2 below was taken from the California American Water Company's UWMP. CalAm does not report water demand and supply by individual service areas. Table WS-1 has been adjusted to reflect the production percentages for each service area as detailed above.

Table WS-1
CalAm Past, Current, and Projected Water Demand (acre-feet annually, AFA)

	2000	2005	2010	2015	2020	2025	2030
Total Water Use	46,925	47,620	50,800	53,300	56,500	60,300	-
Antelope	7,508	7,619	8,128	8,528	9,040	9,648	-
Arden	2,112	2,143	2,286	2,399	2,543	2,714	-
Lincoln Oaks	9,854	10,000	10,668	11,193	11,865	12,663	-

- Unreported

Table WS-2 CalAm Water Supply by Source (AFA)

Water Supply Sources	Normal Year	Single Dry Year	Multiple Dry Years		
			Year 1	Year 2	Year 3
Groundwater Production	30,500	60,300	38,600	50,600	60,300
Surface Water	29,800	0	21,700	9,700	0
Total Water Supply	60,300	60,300	60,300	60,300	60,300

CARMICHAEL WATER DISTRICT

The Carmichael Water District (CWD) is a non-profit public utility serving approximately 11,361 residential connections within an eight square mile area. The District serves the greater part of the 10-square mile Carmichael community. The District land uses are approximately 79 percent residential, six percent commercial, with the remainder being public or quasi-public land uses. All but about five percent of the service area is developed. The District is located 12.5 miles downstream of Folsom Reservoir with 4.25 miles of its southeast boundary bordering the American River. CWD service area is supplied by seven groundwater wells and surface water from the American river. The following demand and supply for the CWD service area, Table WS-3 and Table WS-4, was taken from CWD's UWMP.

Table WS-3
CWD Past, Current, and Projected Water Demand (AFA)

		2004	2010	2015	2020	2025	2030
Total Water Use		13,678	14,200	14,200	14,500	14,800	-

- Unreported

Table WS-4 CWD Water Supply by Source (AFA)

Water Supply Sources	Normal Year	Single Dry Year	Multiple Dry Years [1]		
			Year 1	Year 2	Year 3
Groundwater Production	6,400	-	-	-	-
Surface Water	14,000	12.000	12,000	12,000	12,000
Total Water Supply	14,000	12.000	12,000	12,000	12,000

[1] Supply and demand, per Water Forum Agreement and SGA Groundwater Management Plan, are reduced to 12,000 by 2030. The UWMP assumes this scenario is equivalent to multiple dry years.
- Unreported

CITRUS HEIGHTS WATER DISTRICT

The Citrus Heights Water District (CHWD) serves approximately 19,250 connections. The service area located in the northeast portion of Sacramento County is approximately 7,639 acres. The south Placer County service area is approximately 144 acres. The Citrus Heights Water District Urban Water Management Plan (UWMP) is coordinated with the San Juan Water District (SJWD). Water supply for the district includes groundwater from seven wells and surface water from SJWD. CHWD is dependent on SJWD for its long-term surface water supply from the American River. CHWD is considered part of the San Juan Family in conjunction with Fair Oaks Water District, Orange Vale Water Company, and a portion of the City of Folsom.

SACOG projections indicate that Citrus Heights Water District population growth will be significantly lower in the next twenty years than it has been in the past. Buildout of the CHWD is expected to occur around the year 2024. The following supply data for the CHWD service area, Table WS-6, was taken from CHWD's UWMP. The demand data, Table WS-5, was taken from Technical Memorandum No. 1 of the SJWD – Wholesale Master Plan Phase II.

Table WS-5 CHWD Past, Current, and Projected Water Demand (AFA)

		2005	2010	2015	2020	2025	2030
Total Water Use		20,500	23,108	23,258	23,527	23,577	23,577

Table WS-6 CHWD Water Supply (AFA)

Water Supply Sources	Normal Year	Single Dry Year	Multiple Dry Years		
			Year 1	Year 2	Year 3
Groundwater Production	2,500	2,500	2,500	2,500	4,300
Surface Water	28,770	26,612	26,612	26,612	26,612
Total Water Supply	31,270	29,112	29,112	29,112	30,912

DEL PASO MANOR WATER DISTRICT

As described in the Sacramento Water Forum Agreement (January 2000) and the Sacramento Local Agency Formation Commission (LAFCo) review (2005), the Del Paso Water District (DPMWD) serves an area of approximately 1.2 square miles and has 1,793 connections, of which 1,690 are residential customers. The District is located in the community of Arden Arcade with most of its service area north of Maryal Drive, east of Watt Avenue, south of Marconi Avenue, and west of Eastern Avenue. Small amounts of its service area are south of Maryal Drive and east of Eastern Avenue. The current water supply for the DPMWD is pumped from eight wells. All of the DPMWD service area is within the City of Sacramento's place of use for its American River water rights, and the DPMWD has a contract with the City for an assignment of 2,460 AFA of this entitlement, but is presently not using City water. The annual water demand is described as 1.35 million gallons per day (mgd) in the LAFCo review. The District can supply peak demand periods from only three of its eight wells, leaving the remaining five wells available to meet fire suppression demand. The DPMWD does not meet the criteria for the preparation of an UWMP; therefore, projected water supply and water demand data is unavailable.

FAIR OAKS WATER DISTRICT

The Fair Oaks Water District (FOWD) serves approximately 13,500 connections in the northeast portion of Sacramento County. The service area is approximately 6,160 acres located entirely within the unincorporated area of the County. The service area is bordered by San Juan Avenue on the west, Madison and Pershing Avenues on the north, Walnut and Main Avenue on the east, and parts of Folsom Lake State Recreation Area and the American River Parkway on the south. The District's service area is primarily residential with some commercial and industrial. Approximately 95% of the area is classified as residential use. The FOWD is part of the San Juan Family and has interconnections with SJWD for the provision of surface water.

The following supply data for the FOWD service area, Table WS-8, was taken from FOWD's UWMP. The demand data, Table WS-6, was taken from Technical Memorandum No. 1 of the SJWD – Wholesale Master Plan Phase II.

Table WS-7 FOWD Past, Current and Projected Water Demand (AFA)

		2005	2010	2015	2020	2025	2030
Total Water Use		14,611	15,525	16,438	16,438	16,438	16,438

Table WS-8 FOWD Water Supply (AFA)

Water Supply Sources	Normal Year	Single Dry Year	Multiple Dry Years		
			Year 1	Year 2	Year 3
Groundwater Production	8,900	8,900	8,900	8,900	8,900
Surface Water	15,000	15,000	15,000	15,000	15,000
Total Water Supply	23,900	23,900	23,900	23,900	23,900

Orange Vale Water Company

The Orange Vale Water Company (OVWC) is located in the northeast portion of Sacramento County, approximately 23 miles northeast of downtown Sacramento. The majority of the service area is comprised of single family and multi-family uses, with a small percentage consisting of schools, parks, governmental agencies, and commercial/light industrial. The OVWC receives surface water purchased wholesale from the SJWD. OVWC has an interim agreement with SJWD to purchase up to 7,500 AFA of treated surface water. OVWC has two groundwater wells that are only used during emergency conditions. Transfer and exchange opportunities exist because OVWC is a member of the San Juan Family. There are two existing connections and three potential connections to the San Juan Family. The OVWC service area is approximately 3,078 acres in size, of which 76 percent is developed.

The following supply data for the OVWC service area, Table WS-8, was taken from OVWC's UWMP. The demand data, Table WS-6, was taken from Technical Memorandum No. 1 of the SJWD – Wholesale Master Plan Phase II.

Table WS-9 OVWC Current and Projected Water Demand (AFA)

	2005	2010	2015	2020	2025	2030
Total Water Use	4,982	5,205	5,381	5,511	5,592	5,624

Table WS-10 OVWC Water Supply (AFA)

Water Supply Sources	Normal Year	Single Dry Year	Multiple Dry Years		
			Year 1	Year 2	Year 3
Groundwater Production	0	1,660	550	1,100	1,650
Surface Water	7,500	4,150	6,950	6,400	5,850
Total Water Supply	7,500	5,810	7,500	7,500	7,500

RIO LINDA ELVERTA WATER DISTRICT

The Rio Linda/Elverta Community Water District (RLECWD) is a public water district with a 17.8 square mile service area and a population of 18,400 (2005 counts). The RLECWD service area is located approximately eight miles north of downtown Sacramento. RLECWD is entirely within the unincorporated area of Sacramento County. No cities are serviced by the RLECWD. The service area is bounded by the Placer County Line to the north, East Levee Road to the west, and the City of Sacramento boundary, parallel to Ascot Road on the south. The eastern boundary consists of a series of uneven segments, which include McClellan Air Park, 30th Street to U Street, Hitching Post Road, 16th Street, and Kasser Road.

RLECWD's service area consists of clusters of subdivisions, agriculture-residential areas, and undeveloped agricultural areas. Within the district, the Elverta Specific Plan, approved in 2007, will result in the conversion of 1,744 acres of land from rural to urban uses. The Elverta Specific Plan will include parks, commercial and professional uses, agricultural-residential zoning, as well as low, medium, and high density residential zoning and new elementary schools. Both the RLECWD and CalAm have prepared Water Supply Assessments for the Elverta Specific Plan pursuant to SB 610, which conclude that sufficient and reliable water supplies will be available to serve the water demands of the Elverta Specific Plan in addition to the public water system's existing and planned future uses during normal, single-dry, and multiple-dry water years through 2030, assuming compliance with the long-term regional groundwater and surface water resource management efforts associated with the WFA, the SGA, and Community Plan Policy PF-8.

The following information was provided in the Rio Linda/ Elverta Community Water District's 2005 Urban Water Management Plan. RLECWD will only receive surface water during normal years.

Table WS-11 RLECWD Current, and Project Water Demand (AFA)

	2005	2010	2015	2020	2025	2030
Total Water Demand	2,919	5,200	9,220	12,650	17,350	22,050

Note: The above table includes development of Elverta Specific Plan

Table WS-12 RLECWD Water Supply (AFA)

Water Supply Sources	Normal Year	Single Dry Year	Multiple Dry Years		
			Year 1	Year 2	Year 3
Groundwater Production	18,030	23,030	23,030	23,030	19,660
Recycled Wastewater	2,500	2,500	2,500	2,500	2,500
Surface Water	5,000	0	0	0	0
Total Water Supply	25,530	25,530	25,530	25,530	22,160

Sacramento County Water Agency (North)

Sacramento County Water Agency (SCWA) has two service area located north of the American River, the Arden Park Vista service area and the Northgate service area. The 1,427 acre Arden Park Vista service area is primarily residential with a small portion of commercial and industrial. This service area has 2,891 connections. The Northgate service area is 843 acres with 165 connections. The service area is primarily industrial with a small portion of open space and less than one percent residential and commercial. The Arden Park Vista service has 10 wells and the Northgate service area has 5 wells. Both of the service areas are served entirely by groundwater pumped from the North Area Groundwater Basin. These districts have interconnections with neighboring water purveyors which are normally closed but can be used to supplement groundwater in emergencies. The following demand and supply information (Table WS-1 and Table WS-14) was taken from the Sacramento County Water Agency UWMP.

Table WS-13 SCWA Past, Current and Projected Water Demand (AFA)

	2004	2010	2015	2020	2025	2030
Total Water Use	5,690	5,700	5,700	5,700	5,700	5,700

Table WS-14 SCWA Water Supply (AFA)

Water Supply Sources	Normal Year	Single Dry Year	Multiple Dry Years		
			Year 1	Year 2	Year 3
Northgate Groundwater	1,300	1,235	1,105	1,105	1,105
Arden Park Groundwater	4,400	4,180	3,740	3,740	3,740
Surface Water	0	0	0	0	0
Total Water Supply	5,700	5,415	4,845	4,845	4,845

Sacramento Suburban Water District

The Sacramento Suburban Water District (SSWD) serves a population of approximately 170,000 in Sacramento County. Within the District are two major service areas, the north service area (NSA) and the south service area (SSA). The NSA includes the former Northridge Water District, the Capehart housing area, the former McClellan Air Force Base, and the North Highlands service area of the former Arcade Water District. The SSA includes the Town and Country service area of the former Arcade Water District.

Water supply for the District is currently derived from active groundwater wells and surface water from Folsom Reservoir. In the future the District's water supply will also include American River water from the City of Sacramento's Fairbairn Water Treatment Plant. The following demand and supply projections, Table WS-15 and Table WS-16, are taken from SSWD's UWMP.

Table WS-15 SSWD Current, and Project Water Demand (AFA)

	2005	2010	2015	2020	2025	2050
Total Water Demand	46,157	46,691	47,682	48,454	51,146	72,023

Table WS-16 SSWD Water Supply (AFA)

Water Supply Sources	Normal Year	Single Dry Year	Multiple Dry Years		
			Year 1	Year 2	Year 3
Groundwater Production	24,000	58,000	52,000	52,000	52,000
Surface Water					
Purchase – Bureau of Reclamation **(215)**	10,000	0	0	0	0
Transfer – PCWA	29,000	0	0	0	0
Entitlement – City of Sacramento	22,400	0	0	0	0
Total Water Supply	85,400	58,000	52,000	52,000	52,000

SAN JUAN WATER DISTRICT

The San Juan Water District (SJWD) is both a wholesale and retail agency. The retail portion of the SJWD serves water to retail customers in the SJWD retail service area. A portion of the SJWD retail service area is located in the northeastern portion of Sacramento County and the remainder of the District is located in the southeastern portion of Placer County (Roseville area). The SJWD retail service area is bounded on the east by the City of Folsom and Folsom Lake (AKA Folsom Reservoir).

The SJWD also serves as a wholesaler of surface water to the Fair Oaks Water District, the Citrus Heights Water District, the Orange Vale Water Company, and a portion of the City of Folsom known as the Ashland area. This group of retail water agencies and the SJWD retail agency combine to form what is known as the San Juan Family (Family). SJWD supplies treated surface water to their wholesale customers. The Fair Oaks Water District, the Citrus Heights Water District, and the Orange Vale Water District supplement surface water supplied from SJWD with their own groundwater wells.

The following supply data for the SJWD service area, Table WS-17 was taken from SJWD's UWMP. The demand data, Table WS-18, was taken from Technical Memorandum No. 1 of the SJWD – Wholesale Master Plan Phase II.

Table WS-17 SJWD Current, and Project Water Demand (AFA)

	2005	2010	2015	2020	2025	2030
Total Water Use	18,691	19,196	19,700	20,204	20,708	20,708

Table WS-18 SJWD Water Supply (AFA)

Water Supply Sources	Normal Year	Single Dry Year [1]	Multiple Dry Years		
			Year 1	Year 2	Year 3
Groundwater Production [2]	0	13,528	13,528	13,528	13,528
Surface Water					
Bureau of Reclamation CVP	11,200	8,400	8,400	8,400	8,400
Bureau of Reclamation CVP (Fazio Water)	13,000	9,750	9,750	9,750	9,750
PCWA	25,000	25,000	25,000	25,000	25,000
Pre-1914 Right	33,000	33,000	33,000	33,000	33,000
Total Water Supply	82,200	67,728	67,728	67,728	67,728

Notes:
[1] Supply based on full use of CVP contracts
[2] Groundwater supply from Family Agencies used to meet any surface water supply reductions

SOUTH AREA

CALIFORNIA AMERICAN WATER COMPANY NORTHERN DIVISION

The California American Water Northern Division (CalAm) has eight service areas within Sacramento County. Of these eight service areas, five are subject to the proposed General Plan's infill policies, commercial corridors, or proposed growth areas. Because the Northern Division of CalAm serves customers north and south of the American River and has different sources of water, the discussion of CalAm service areas is found in both the North and South of American River sections of this setting, as appropriate. The two south of American River service areas affected by the proposed General Plan are described in the CalAm 2006 Urban Water Management Plan as follows.

PARKWAY

The Parkway service area (PWS # 3410017) lies along Highway 99 generally south of the Sacramento City limits and north of the Elk Grove City limits. It extends west to Franklin Boulevard and east to Elk Grove-Florin Road. Citizens Utilities assembled the Parkway system between 1954 and 1967 from smaller systems serving various subdivisions. The area is served from 16 wells, drawing from the Central Groundwater Basin. Surface water is also available to the Parkway area through a contract with the City of Sacramento in the amount of up to 2,580 AFA. Cal-Am operates three treatment plants to remove iron and manganese from groundwater in this service area. The Parkway system has about 14,000 connections and accounts for about 28% of the Northern Division's production needs.

SUBURBAN/ROSEMONT

This service spans both sides of Highway 50 about nine miles east of downtown Sacramento. This service area is south of the American River and north of Mather Airport. It serves part of the City of Rancho Cordova, and is primarily residential, although there are a number of commercial customers along Folsom Boulevard. There are about 17,000 customers in the Suburban/Rosemont area. It is supplied with water drawn from the Central Groundwater Basin via eight wells serving the Rosemont sub-area and 20 wells serving the Suburban area. Some wells, particularly those near the Mather Airport are threatened by contamination. Adjacent water purveyors have lost wells due to contamination and have pursued claims against the responsible parties. Groundwater contamination in this portion of the County is a regional issue in which the US EPA and Regional Board have taken the lead to require abatement and clean up from those responsible. CalAm has also aggressively pursued responsible parties for contingency/replacement water should facilities be impacted and agreements are in place for certain wells considered threatened. Discussions are underway with the City of Sacramento regarding a wholesale water supply agreement that could provide additional source of supply to the Suburban/Rosemont area as well as replacement supplies for wells that may be lost to groundwater contamination in the future. In all, the Suburban/Rosemont service area accounts for about 30% of the Northern Division's production.

The following demand and supply for all CalAm service areas south of the American River (Table WS-19) was taken from the California American Water Company's UWMP and has been adjusted to reflect the production percentages for each service area as detailed above. The supply data is reported in Table WS-1 and Table WS-2 above, in the CalAm north section above.

Table WS-19 CalAm South Past, Current, and Project Water Demand (AFA)

	2000	2005	2010	2015	2020	2025	2030
Total Water Use	46,925	47,620	50,800	53,300	56,500	60,300	-
Parkway	13,139	13,334	14,224	14,924	15,820	16,884	-

Suburban/Rosemont	14,078	14,286	15,240	15,990	16,950	18,090	-

- Unreported

Florin County Water District

The Florin County Water District (FCWD) is located adjacent to and south of the Sacramento City limits, east of Power Inn Road, generally north of Gerber Road, and west of Gardner Avenue. The FCWD is approximately 1,600 acres (2.5 square miles) and serves a population of 12,588 with 2,212 customers. The FCWD has 2,177 connections, of which 2,005 are residential. The current supply is groundwater pumped from 10 wells. Production is 2,668 AFA. All of the service area is within the City of Sacramento's place of use for its American River water rights. The FCWD does not meet the criteria for the preparation of an UWMP; therefore, projected water supply and water demand data is unavailable.

City of Folsom

The City of Folsom (COF) service area is bounded to the west by the American River and the SJWD's service area, to the north by the Placer County line, and to the east by the El Dorado County line. The southern portion of the service area extends to White Rock Road. For the UWMP analysis COF defined four distinct demand areas. These demand areas are Folsom Service Area – West and Folsom Service Area – East located south of the American River and the Ashland Area and the American River Canyon Area located north or the American River.

The City diverts surface water from Folsom Lake at Folsom Dam for delivery via the Natoma Pipeline to the Folsom Prison Water Treatment Plant, the Folsom Water Treatment Plant (FWTP), and the Willow Hill Reservoir. Water treated at the City's FWTP is distributed to the City's service areas south of the American River. The City's Ashland and American River Canyon areas are supplied water from the San Juan Water District.

Subsequent to the release of the COF's UWMP the City prepared a Water Supply Assessment (Easton WSA) (Tully & Young, 2007) pursuant to Senate Bill 610 to analyze water demands projected by the development of the Easton project within the City of Folsom's service area, through the year 2030.

The supply and demand information presented in Table WS-20 and Table WS-21 was taken from the Water Supply Assessment prepared for the Easton project.

Table WS-20 FCWD Current and Projected Water Demand (AFA)

	2007	2010	2015	2020	2025	2030
Total Water Use	27,394	28,256	28,005	29,079	30,084	30,412

Note: Assumes an Easton/ Glenborough Development of 3,343 AF demand in 2030, with incremental demand increases beginning in 2010 and with a 30% increase in 2015 and 50% in 2020.

Table WS-21 FCWD Water Supply (AFA)

	Normal Year	Single Dry Year	Multiple Dry Years		
			Year 1	Year 2	Year 3
Groundwater Production [1]	2,731	2,731	2,731	2,731	2,731
Surface Water	32,250	27,000	27,000	27,000	32,250
Total Water Supply	34,981	29,731	29,731	29,731	34,981

[1] Assumes Folsom City-Aerojet agreement provides 2,731 AFA of Groundwater Extraction Treatment (GET) water

Fruitridge Vista Water Company

The Fruitridge Vista Water Company (FVWC) service area is an irregular shaped area generally bounded by Fruitridge Road, Stockton Boulevard, Vineyard Road, and the Union Pacific Railroad tracks. The approximate 4,790 customers in this 2.5 square mile service area are supplied ground water from 17 wells. The district reports that it pumps 4,448 AFA. The FVWC does not meet the criteria for preparation of a UWMP; therefore, water supply and water demand data is unavailable.

Golden State Water Company – Cordova System

The Golden States Water Company Cordova System (GSWC) provides service to a portion of the City of Rancho Cordova and the community known as Gold River within the unincorporated County. GSWC is bounded by Sunrise Boulevard and Hazel Avenue to the east, Mather Air Force Base to the south, Mather Field Road to the west, and the American River to the north. The service area is primarily characterized by residential land use, with some commercial and industrial land uses.

According to GSWC's UWMP the Company receives its water from surface water from the American River, groundwater from the Central Groundwater Basin, and Replacement Water from Aerojet and the SCWA. It should be noted however that the planned Replacement Water supplies from SCWA, as detailed below, may no longer be available through SCWA.

The following supply and demand information, Table WS-22 and Table WS-23, was taken from the Golden States Water Company Cordova System's 2005 Urban Water Management Plan.

Table WS-22 GSWC Current, and Projected Water Demand (AFA)

	2005	2010	2015	2020	2025	2030
Total Water Use	18,800	20,933	22,068	22,323	22,334	22,334

Table WS-23 GSWC Water Supply (AFA)

	Normal Year	Single Dry Year	Multiple Dry Years		
			Year 1	Year 2	Year 3
Groundwater Production [1]	4,500	4,500	4,500	4,500	4,500
Surface Water	5,000	5,000	5,000	5,000	5,000
Replacement Water – Aerojet	5,000	5,000	5,000	5,000	5,000
Replacement Water – SCWA	7,834	7,834	7,834	7,834	7,834
Total Water Supply	22,334	22,334	22,334	22,334	22,334

City of Sacramento

Retail water is provided by the City of Sacramento to small portions of the unincorporated area of Sacramento County affected by the proposed General Plan located north and south of Fruitridge Road and west of Stockton Boulevard. This water is conveyed to these areas through City facilities. The City of Sacramento operates 33 municipal groundwater supply wells, of which 31 are north of the American River. The City's maximum groundwater pumping capacity is 34 mgd.

The City of Sacramento has long term surface water entitlements that exceed current demand. The City holds pre-1914 water rights on the Sacramento River, five water rights permits (one for diversion of Sacramento River water and four for diversion of American River water), and a 1957 permanent water rights settlement agreement with the U.S. Bureau of Reclamation (Bureau of Reclamation). In this agreement, among other provisions, the Bureau of Reclamation agreed to operate its Folsom and Shasta facilities so as to provide a reliable supply of the City's water rights water to the City's downstream diversion intakes, and the City agreed to limit total diversions under its Sacramento and American River water right permits to 326,000 AFA (City of Sacramento General Plan Technical Background Report, June 2005).

Sacramento County Water Agency (Zone 40)

Zone 40 serves an area of approximately 86,000 acres. The area served by Zone 40 includes portions of the City of Rancho Cordova, all of the City of Elk Grove, and a significant portion of unincorporated Sacramento County beginning near the current Urban Policy Area boundary and ending at the Urban Services Boundary. The current

water supply is obtained from a mix of groundwater, surface water, recycled water, and remediated water.

Groundwater is provided form the Central Groundwater Basin by the Sacramento County Water Agency using commercial wells and treatment plants located through its service area. Water supply analyses supporting the Water Forum Agreement allocate up to 40,900 acre-feet of groundwater annually on a long-term basis for Zone 40. Remediated water supplies are based on yields from the various groundwater extraction and treatment plants that Aerojet and Boeing operate, to clean up contaminated water in the vicinity of their historical operations. This water is pumped from the Central Groundwater Basin, and amounts to 14,532 acre-feet of yield per year. Recycled water is made available by the Sacramento Regional County Sanitation District under an agreement with the Sacramento County Water Agency, and provides a constant flow of highly-treated wastewater year-round. This water is used to reduce the consumption of potable water for non-potable uses and amounts to 4,400 AFA.

Availability of surface water supplied depends on hydrologic conditions, the snow pack, reservoir storage, and the amount of water used by other entities that hold water rights permits that take precedence over the County permit. Surface water supplies come from a water rights permit issued by the State Water Resources Control Board in the amount of 21,700 AFA, from the Central Valley Project water supply contracts (with the U.S. Bureau of Reclamation) in the amount of 39,551 AFA, and from wholesale water via an agreement between the Sacramento County Water Agency and the City of Sacramento (consistent with the Water Forum agreement) in the amount of 9,300 AFA. The reliability of the water rights supply is low because it is a very “junior” water right secondary to many other rights, and is also subject to restrictions based on the amount of water in the Delta. The Central Valley Project water reliability is moderate because they have historically yielded 86 percent of the contract, and have been cut back up to 50 percent in critically dry years. The other supplies are highly reliable.

The Sacramento County Water Agency manages its supplies conjunctively – that is, in wet years when there is abundant surface water available the Agency will divert the maximum amount of surface water allowed, while minimizing groundwater usage. The aquifer can replenish during these wet years, so that in dry years when surface water becomes less abundant SCWA can pump groundwater to meet needs. The following demand and supply information (Table WS-24 and Table WS-25) was taken from the Sacramento County Water Agency Urban Water Management Plan Table 2-4 and 5-2 and the technical report written for the General Plan Update by Water Resources (technical report is within Appendix B). Note that although the total normal year water supply is shown as 127,596 AFA, the technical report updates this number to 131,727 AFA.

Table WS-24 Zone 40 Current and Projected Water Demand (AFA)

	2005	2010	2015	2020	2025	2030
Total Water Use	9,819	51,585	77,380	93,642	104,424	113,064

Table WS-25 Zone 40 Water Supply (AFA)

	Normal Year	Single Dry Year	Multiple Dry Years		
			Year 1	Year 2	Year 3
Groundwater	39,097	68,327	69,599	69,599	68,522
Remediated Groundwater	14,532	14,532	14,532	14,532	14,532
Surface Water	69,567	34,683	26,106	26,106	23,183
Recycled Water	4,400	4,400	4,400	4,400	4,400
Total Water Supply	127,596	121,942	114,637	114,637	110,637

TOKAY PARK WATER COMPANY

The Tokay Park Water Company (TPWD) service area is located at the northwest corner of Florin Road and Power Inn Road. The TPWD pumps 142 acre-feet of groundwater to supply its approximate 200 customers. The TPWD does not meet the criteria for the preparation of an UWMP; therefore, water supply and water demand data is unavailable.

REGULATORY SETTING

WATER PLANNING-RELATED LEGISLATION

URBAN WATER MANAGEMENT PLANNING ACT

Pursuant to California Water Code Sections 10610-10657, as last amended by Senate Bill 318 in 2004, the Urban Water Management Planning Act requires all urban water suppliers with more than 3,000 service connections or water use of more than 3,000 AFA are required to submit an Urban Water Management Plan (UWMP) to the California Department of Water Resources every 5 years and update the plan on or before December 31 in years ending in 5 and 0. SB 318 is the 18th amendment to the original bill requiring a UWMP, which was initially enacted in 1983. Amendments to SB 318 have focused on ensuring that the UWMP emphasizes and addresses drought contingency planning, water demand management, reclamation, and groundwater resources.

SENATE BILL 610

SB 610 became effective January 1, 2002. The purpose of SB 610 is to strengthen the process by which local agencies determine the adequacy and sufficiency of current and future water supplies to meet current and future demands. SB 610 amended the California Public Resources Code to incorporate Water Code requirements within the CEQA process for certain types of projects (described below). SB 610 also amended the water code to broaden the types of information included in a UWMP. SB 610 consists of two primary components, the UWMP and the Water Supply Assessment (WSA) (Water Code Sections 10910-10915).

WATER CODE PART SECTION 10910

Water Code Section 10910 et seq. defines the projects for which the preparation of a Water Supply Assessment (WSA) is required as well as the lead agency's responsibilities related to the WSA. The Water Code also clarifies the roles and responsibilities of the lead agency under CEQA and of the water supplier with respect to describing current and future supplies compared to current and future demands. A WSA is required for:

- A proposed residential development of more than 500 dwelling units;
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 250,000 square feet of floor space;
- A proposed hotel or motel, or both, having more than 500 rooms;
- A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area;
- A mixed use development that includes one or more of the uses described above;
- A development that would demand a volume of water equivalent to or greater than the volume of water required by a 500-dwelling unit project; and
- For lead agencies with fewer than 5,000 water service connections, any new development that would increase the number of water service connections in the service area by 10% or more.

Under Section 10910 of the Water Code, the lead agency must identify the affected water supplier and ask the supplier whether the new demands associated with the project are included in the suppliers UWMP. If the UWMP includes the demands, it may be incorporated by reference in the WSA. If there is no public water system to serve the project, the lead agency must prepare the WSA.

SENATE BILL 221

SB 221 requires a city or county to include as a condition of approval of any tentative map, parcel map, or development agreement for certain residential subdivisions a requirement that a "sufficient water supply" be available. Proof of a sufficient water supply must be based on a written verification from the public water system that would serve the development.

CALIFORNIA SAFE DRINKING WATER ACT

The California Safe Drinking Water Act (CA SOWA; California Health and Safety Code 4010—4039.6) authorizes the California Department of Public Health (CDPH) to establish maximum contaminants levels (MCLs) that are at least as stringent as those required by the US EPA under the SDWA. The CDPH has established MCLs for contaminants that may occur in public water systems, including all the substances for which federal MCLs exist, and may have adverse health effects. Operators of public water systems in California are required to meet federal and state drinking water standards.

WATER PLANNING AGENCIES AND RESPONSIBILITIES

FEDERAL

UNITED STATES BUREAU OF RECLAMATION

The Bureau of Reclamation is part of the United States Department of the Interior and is responsible for the development and conservation of much of the water resources in the western United States. The Bureau operates Folsom Dam, Nimbus Dam, and the Folsom South Canal. While the original purpose of the Bureau was to provide for the reclamation of arid and semiarid lands in the west, the agency's current mission covers a wider range of interrelated functions. These functions include providing municipal and industrial water supplies through the Central Valley Project; generating hydroelectric power; providing irrigation water for agriculture; improving water quality, flood control, and river navigation; providing river regulation and control and fish/wildlife enhancement; offering water-based recreation opportunities; and conducting research on a variety of water-related topics.

UNITED STATES GEOLOGICAL SURVEY

The United States Geological Survey (USGS) National Water Use Information Program is responsible for compiling and disseminating the nation's water use data. The USGS works in cooperation with federal, state, and local environmental agencies to collect water use information at the local level.

STATE OF CALIFORNIA

DEPARTMENT OF WATER RESOURCES

The Department of Water Resources (DWR) is responsible for the preparation of the California Water Plan, management of the State Water Project, protection, and restoration of the Sacramento-San Joaquin River Delta, regulation of dams, provision of flood protection, and other functions related to surface water and groundwater resources. Other functions include helping water agencies prepare their Urban Water Management Plans and reviewing such plans to ensure that they comply with the related Urban Water Management Planning Act.

WATER RESOURCES CONTROL BOARD

The Water Resources Control Board (State Water Resources) was established in 1967 to administer state water rights and water quality functions. State Water Resources and its nine regional water quality control boards administer water rights and enforce pollution control standards. State Water Resources is responsible for the granting of water right permits and licenses through an appropriation process following public hearings and appropriate environmental review by applicants and responsible agencies. In granting water right permits and licenses, the WRCB must consider all beneficial uses, including water for downstream human and environmental uses.

CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD

The Central Valley Regional Water Quality Control Board (Regional Water Board) is responsible for the preparation and implementation of basin water quality plans consistent with the Clean Water Act and enforcement of those plans to ensure that local water quality is protected. The Regional Water Board may become involved in water supply programs as a responsible agency with respect to project impacts on downstream beneficial uses.

CALIFORNIA DEPARTMENT OF FISH AND GAME

The California Department of Fish and Game (Fish and Game) is a responsible agency with respect to the review of water right applications and is responsible for issuing lake and streambed alteration permits for new water supply projects. Fish and Game often helps establish instream flows to maintain habitat below a project.

SIGNIFICANCE CRITERIA

A water supply impact of the proposed Sacramento County General Plan Update would be considered significant if it would result in any of the following:

1. 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.

2. Contribute to groundwater pumping to serve project growth such that the average annual sustainable yield of 131,000 acre-feet for the Sacramento North Area Groundwater Basin is exceeded.

3. Contribute to groundwater pumping to serve project growth such that the average annual sustainable yield of 273,000 acre-feet for the Sacramento Central Groundwater Basin is exceeded.

4. Require the construction of new or the expansion of existing water treatment facilities and pipelines that could potentially cause significant construction level environmental effects.

5. Result in a project water demand from proposed land uses that cannot be met by water purveyors' existing or future projected normal, single dry, and multiple dry year supplies.

6. Adversely affect the ability to maintain a sustainable, high quality groundwater resource for users of the Sacramento North and Central Groundwater Basins.

METHODOLOGY

Water Purveyor's Urban Water Management Plans prepared pursuant to Government Code 65352.5, the American River Basin Cooperating Agencies Regional Water Master Plan, the 2000 Sacramento Water Forum Agreement, the Zone 40 Water Supply Master Plan and Final EIR, as well as discussions with representatives of the water purveyors, were used to establish a base case against which land use changes resulting from the proposed General Plan are evaluated – in most cases this base case is the 1993 General Plan buildout. The UWMPs, prepared in 2005 or later, were based on land uses associated with the existing 1993 Sacramento County General Plan, as previously amended, as well as the land use plans prepared by SACOG (Blueprint), and the Cities of Sacramento, Elk Grove, Folsom, and Citrus Heights located within Sacramento County.

The land use data generated through the traffic study was used for the water supply analysis. The 2005 water demands were estimated using the following three land use types: single family, multi family, and commercial/industrial. An RD-5 density assumption was used for single family and an RD-30 density assumption was used for multifamily. These assumptions may over or under estimate the actual existing densities in 2005. The actual 2005 (unless otherwise noted) use for each purveyor, as presented in their Urban Water Management Plan, is reported in the Environmental Setting section of this chapter. The estimated 2005 use is used to compare existing use against projected use in the impacts and analysis section of this chapter because it

better reflects the geographic boundaries of each purveyor's service area and is consistent with the land use designations used to project demand.

For the Water Supply analysis, land uses for the proposed corridor areas are expressed as acreages for single family, multi family, and commercial/industrial land uses. The unit water demand factors (also called urban water duties) that were applied to each land use category evaluated were the same used for preparation of Sacramento County Water Agency's Zone 40 Water Supply Master Plan (February 2005). The unit water demand factors for the 2030 build-out scenarios are 2.89 AF/Ac/Yr for single family residential, 4.12 AF/Ac/Yr for high density multi family residential, and 2.73 AF/Ac/Yr for commercial/industrial land use. These unit water demand factors were modified by normalization to account for hydrologic year differences, application of a 25.6% conservation factor to the 1990 Boyle unit water demand factors, and were also adjusted slightly upward to reflect the most recent water use data. While it is recognized that water demand factors may vary slightly within each water purveyor and service area, the demand factors used for the proposed General Plan analysis were determined to be adequately representative of Sacramento urban water use. Therefore, a comparison of the expected water demand change between the 1993 General Plan year 2030 land uses and the proposed General Plan and CEQA alternatives 2030 land uses is made.

For each of the new growth areas located within Zone 40, year 2030 water demand was estimated by adding a factor of 1.23 AF/Ac/Yr to the buildout scenarios discussed above. This factor accounts for the additional land uses expected within these new growth areas.

Source documents referenced above can be found at the following web sites: www.waterforum.org and www.owue.water.ca.gov/urbanplan/uwmp/uwmp.cfm or are available for review at the Sacramento County Department of Environmental Review and Assessment.

IMPACTS AND ANALYSIS

Of the 28 water purveyors that supply water to customers within Sacramento County, 17 would be affected by corridor enhancement, residential infill, or New Growth Areas proposed in the General Plan Update. Table WS-26 identifies these water purveyors and the proposed land use changes within them. All of the purveyors will experience residential infill therefore it is not included in the table.

Table WS-26
Proposed General Plan Land Use Changes by Water Purveyor

Purveyor	Corridors	New Growth Areas
California American Water Company – Northern Division	X	X
Carmichael Water District	X	
Citrus Heights Water District	X	
City of Folsom	X	
City of Sacramento –retail service area within unincorporated area	X	
Del Paso Manor Water District	X	
Fair Oaks Water District	X	
Florin County Water District	X	
Fruitridge Vista Water Company	X	
Golden States Water Company	X	
Orange Vale Water District		
Rio Linda/Elverta Community Water District		X
Sacramento County Water Agency – Zone 40	X	X
Sacramento County Water Agency – Arden Park Vista	X	
Sacramento Suburban Water District	X	X
San Juan Water District	X	
Tokay Park Water Company	X	

Table WS-27 below reports water demand estimates for 2005 CEQA Baseline, and projections for buildout of the 1993 General Plan, the General Plan Update, the No Project Alternative, the Remove Grant Line East Alternative, the Focused Growth Alternative, and the Mixed Use Alternative. The 2005 estimates were used instead of the 2005 reported use because they better reflect the geographic boundaries of the service areas and are consistent with the land use designations used to project demand. The 2005 CEQA Baseline represents water demand if no additional development occurred after 2005. Due to enhanced conservation and infrastructure repair and upgrade, the 2005 CEQA Baseline demand has and will continue to reduce over time. Therefore, when projecting water demand for the various General Plan scenarios, there is an additive and subtractive relationship between the anticipated reduction in demand due to conservation and the increased demand expected from new growth. As seen in Table WS-27, some purveyors experience a decrease in demand under certain General Plan scenarios. This does not mean that a particular scenario has negative growth; it instead indicates that the amount of water conservation projected exceeds the amount of any new demand for that particular purveyor in that specific scenario.

The impact analyses that follow do not reference the corridors by name because the corridors extend beyond the boundaries of the districts. The corridors are therefore, referenced by location within the water purveyor's service area.

Table WS-27: Projected Acre-Feet Annual Demand by Scenario

Purveyor		2005	Existing 1993 General Plan	Proposed Project	No Project	Alternative 1: Remove Grant Line East	Alternative 2: Focused Growth	Alternative 3: Mixed Use
North	California American (Total)	30,980	29,931	34,014	29,931	34,014	35,067	32,731
	Antelope	5,771	5,436	5,595	5,436	5,595	5,595	5,865
	Arden	2,393	2,109	2,144	2,109	2,144	2,144	2,179
	Lincoln Oaks	4,007	3,690	3,765	3,690	3,765	3,765	3,868
	Parkway	10,541	10,449	11,922	10,449	11,922	11,922	12,282
	Suburban /Rosemont	8,268	8,247	10,589	8,247	10,589	11,642	8,536
	Carmichael	9,623	8,967	9,359	8,967	9,359	9,359	10,461
	Citrus Heights	16,692	15,763	15,791	15,763	15,791	15,791	16,054
	Del Paso Manor	1,853	1,891	1,932	1,891	1,932	1,932	2,049
	Fair Oaks	8,758	8,392	8,508	8,392	8,508	8,508	9,757
	Orange Vale	4,243	4,184	4,322	4,184	4,322	4,322	4,906
	Rio Linda	5,000	6,959	7,085	6,959	7,085	7,085	7,589
	Sacramento County (Arden Park Vista)	2,607	2,286	2,332	2,286	2,332	2,332	2,605
	Sacramento Suburban	43,613	41,641	44,075	41,641	44,075	44,075	46,360
	San Juan	1,505	1,437	1,460	1,437	1,460	1,460	1,546
South	City of Folsom	1,246	5,063	5,106	5,063	5,063	5.063	5,547
	City of Sacramento	127,817	134,387	134,501	134,387	134,501	134,501	134,501
	Florin County	2,623	2,727	3,082	2,727	3,082	3,082	3,158

Purveyor		2005	Existing 1993 General Plan	Proposed Project	No Project	Alternative 1: Remove Grant Line East	Alternative 2: Focused Growth	Alternative 3: Mixed Use
	Fruitridge Vista	4,900	4,675	5,080	4,675	5,080	5,080	5,184
	Golden States	5,914	4,961	5,115	4,961	5,115	5,115	5,146
	SCWA (Zone 40) [1]	9,819	32,240	64,385	37,667	49,621	47,744	34,002
	Tokay Park [3]	157	139	161	139	161	161	161

[1] Data taken from the technical report provide by Water Resources (Appendix B).

IMPACT: PROPOSED POLICIES

The Proposed Water Supply, Quality, and Conservation section of the Conservation Element has been modified to include new policies and implementation measures related to availability and use of ground water and surface water. Six existing policies have been revised and 13 new policies have added. Many of the existing policies and implementation measures have been reorganized and renumbered. A complete list of the draft new and revised policies and implementation measures related to Water Supply is located in Appendix A of this document.

The proposed and existing policies and implementation measures associated with Water Supply are intended to ensure that development does not exceed the capacity of dependable water supplies and that the sustainable yield groundwater and surface water rights are used to meet projected growth in the unincorporated Sacramento County. These policies are all beneficial in nature, and impacts related to General Plan Policy additions are considered *less than significant.*

MITIGATION MEASURES:

None recommended.

PROPOSED ALTERNATIVE POLICIES

In response to the NOP the Sacramento County Department of Water Resources (Water Resources) prepared an alternative version of the portion of the Conservation Element Section I that deals with water supply. Water Resources indicated that the proposed version of the Conservation Element Water Resources section contain some outdated information, and should be updated and consolidated to reflect the current water supply framework. The alternative is provided in Appendix B and the impacts of the proposed policies and implementation measures are discussed below. The policies themselves are also included in Appendix A, following the Project policies. These policies are all treated as new, rather than as revised.

The proposed Water Resources section of the Conservation Element is six pages long and contains 22 policies. It is not structured in the same way as the other General Plan Elements, so if it were adopted it is likely that some reformatting would be needed. The proposed Project version is 22 pages long and contains 29 policies. Though the subsections and arrangement of the two are very different, they deal with the same basic subject matter: water supply management through conjunctive use, maintaining sustainable yields, efficient use of water, balancing water needs with ecosystem needs, and protection of ground and surface water quality (note that water quality is discussed within the Hydrology and Water Quality Chapter of this EIR).

The proposed Project policies are more specific – for instance, discussing water supply requirements for the infill and Commercial Corridors strategies. The proposed Water Resources version consolidates the intent of the policies into more general language.

Where a Project policy may state that infill and Commercial Corridor development must demonstrate that adequate water supply is available, the proposed Water Resources policy states that development approval shall be subject to the California Water Code. Overall it appears that though the language is substantially modified, implementing either the Project policies or the proposed Water Resources policies will result in similar benefits. In some respects, the proposed Water Resources policies are more beneficial, because they address topics that the Project policies do not – such as climate change. Overall, the impacts of approving the alternative Water Resources language would be *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: INCREASE IN WATER DEMAND THAT CANNOT BE MET BY WATER PURVEYORS' EXISTING OR FUTURE PROJECTED SUPPLIES OR REQUIRE NEW WATER TREATMENT FACILITIES AND PIPELINES THAT COULD CAUSE CONSTRUCTION LEVEL ENVIRONMENTAL EFFECTS

NORTH AREA

CALIFORNIA AMERICAN WATER COMPANY

Corridor enhancement, residential infill, the West of Watt New Growth Area, and the Jackson New Growth Area, as proposed in the General Plan Update, would affect the California American Water Company (CalAm) by designating corridors along Fulton Avenue, Folsom Boulevard, Florin Road, Stockton Boulevard, and Auburn Boulevard for more intense land uses, encouraging higher density infill of vacant land, and developing the West of Watt New Growth Area and the Jackson New Growth Area (for illustration see Appendix B). In total, the proposed General Plan Update designates an additional equivalent of 1,136 acres single family residential, 159 acres multi family, and 53 acre for commercial/industrial uses within the CalAm's Sacramento County service areas. The Project will increase projected 2030 water demand by 3,034 AFA above 2005 levels and by 4,084 AFA above 1993 General Plan normal year forecast levels.

CalAm has six distinct service areas that are located within Sacramento County. The service areas in the northern portion of the County are Antelope, Lincoln Oaks, and Arden. The service areas in the southern portion of the County are Suburban/Rosemont, Security Park, and Parkway. The Security Park service area does not contain any proposed development; therefore there is no further discussion of that area in this analysis. A representative of CalAm (J. Kilpatrick) provided a brief analysis of potential impacts in each service area. The following discussions reflect the ability of CalAm to serve the additional demand and potential constraints to service, as presented in that analysis, for the service areas the North Area.

ANTELOPE

Within the service area of Antelope the proposed General Plan Update designates an additional equivalent of 32 acres single family residential, 16 acres multi family, and 18 acres of commercial/industrial uses above 1993 General Plan levels. This land use intensification would increase the water demand in the Antelope service area by 159 AFA above 1993 General Plan levels during a normal water year. The Project demand for potable water is 176 AFA less than the 2005 estimate.

The northern portion of the West of Watt New Growth Area extends into the Antelope service area (for illustration see Appendix B). According to CalAm the district has sufficient water to supply the additional demand in this area by increasing production from the existing wells that serve the area. CalAm further indicated that no infrastructure improvements are anticipated. Although CalAm's existing infrastructure can accommodate the increased demand, distribution pipeline extensions might be necessary at the project level. Impacts related to construction of the distribution pipeline extensions may occur and include construction impacts to native trees, migratory birds, and special status species, air quality impacts associated with particulate matter, erosion and sedimentation impacts; traffic and circulation impacts, and potential impacts to cultural/historical resources. These impacts will be assessed at such time specific development projects are proposed. Conveyance of the additional water demand resulting from the Project may result in construction level environmental impacts.

For the above mentioned reasons impacts are considered *potentially significant*.

ARDEN

Within the Arden service area an additional equivalent of 6 acres single family residential, 3 acres multi family, and 2 acres for commercial/industrial uses are designated above 1993 General Plan levels. This land use intensification would increase the water demand in the Arden service area by 35 AFA above 1993 General Plan levels during a normal water year. The Project demand for potable water is 249 AFA less than the 2005 estimate.

A portion of the commercial corridor along Fulton Boulevard is located within the eastern portion of the Arden service area. According to CalAm the district has sufficient water to supply the additional demand in this area through its existing service and from planned connections to the City of Sacramento. The planned connection will likely be used during peak hours and for fire flow. CalAm further indicated that no infrastructure improvements are anticipated. Although CalAm's existing infrastructure can accommodate the increased demand, distribution pipeline extensions might be necessary at the project level. Impacts related to construction of the distribution pipeline extensions may occur and include construction impacts to native trees, migratory birds, and special status species, air quality impacts associated with particulate matter, erosion and sedimentation impacts; traffic and circulation impacts, and potential impacts to cultural/historical resources. These impacts will be assessed at such time specific development projects are proposed. Conveyance of the additional

water demand resulting from the Project may result in construction level environmental impacts.

For the above mentioned reasons impacts are considered *potentially significant*.

LINCOLN OAKS

Within the Lincoln Oaks service area the proposed General Plan Update designates an additional equivalent of 15 acres single family residential, 7 acres multi family, and one acre for commercial/industrial uses above 1993 General Plan levels. This land use intensification would increase the water demand in the Lincoln Oaks service area by 75 AFA above 1993 General Plan levels during a normal water year. The Project demand for potable water is 242 AFA less than the 2005 estimate.

A small portion of the commercial corridor along Auburn Boulevard extends into the Lincoln Oaks service area (see Appendix B for illustration). According to CalAm the district has sufficient water to supply the additional demand in this area by increasing production from the existing wells that serve the area. CalAm indicated that some wells in this area were contaminated and that further analysis would be needed to determine if treatment facilities would be necessary. Improvements related to well contamination will not occur as a result of this project and are therefore not considered an impact of this project. CalAm indicated that no other infrastructure improvements are anticipated. Although CalAm's existing infrastructure can accommodate the increased demand, distribution pipeline extensions might be necessary at the project level. Impacts related to construction of the distribution pipeline extensions may occur and include construction impacts to native trees, migratory birds, and special status species, air quality impacts associated with particulate matter, erosion and sedimentation impacts; traffic and circulation impacts, and potential impacts to cultural/historical resources. These impacts will be assessed at such time specific development projects are proposed. Conveyance of the additional water demand resulting from the Project may result in construction level environmental impacts.

For the above mentioned reasons impacts are considered *potentially significant*.

Overall CalAm will need to acquire additional water within its service areas to accommodate the projected increase in demand anticipated from buildout of the General Plan Update (see CalAm South Area discussion). Secondary impacts due to obtaining the additional water may occur as well as construction impacts related to infrastructure. For these reasons impacts to the greater CalAm service area are *significant and unavoidable*.

CARMICHAEL

Corridor enhancement and residential infill, as proposed in the General Plan Update would affect the Carmichael Water District by designating corridors along Fair Oaks Boulevard and Manzanita Avenue for more intense land uses and encouraging higher density infill of vacant land (for illustration see Appendix B). The proposed General Plan

Update will designate an additional equivalent of 69 acres for single family residential, 34 acres for multi family, and 19 acres for commercial uses above the 1993 General Plan levels. This land use intensification would increase the water demand in the Carmichael Water District's service area by 392 AFA above 1993 General Plan levels during a normal water year. The Project demand for potable water is 264 AFA less than the 2005 estimate.

According to staff of the Carmichael Water District (personal communication Nugent, 2009), the Water District has sufficient water to accommodate the projected demand increase within the District's service area for the General Plan Update. The Carmichael Water District can provide water service for the proposed corridors and infill within its service area.

Staff (S. Nugent) of the Carmichael Water District indicated that the current infrastructure is adequate to convey the additional water. The District does not anticipate the need for new water transmission mains, just extensions of pipelines to new customers. Impacts related to construction of small pipeline extensions to the Commercial Corridor or to infill areas may occur. The additional pipelines would be a direct result of corridor enhancement and residential infill and may result in construction level environmental impacts associated with air quality, noise generated during nighttime construction activities, biological impacts, cultural resources impacts (depending on location), and traffic/circulation impacts. These impacts are considered potentially significant but will be assessed at such time as specific development projects, design plans, and individual changes in land use are proposed. The need for any future construction of infrastructure to provide water supply for urban uses and fire suppressions to accommodate commercial corridors and infill development would be determined by the District at the time a Commercial Corridor Plan is developed by the County of Sacramento or infill is proposed by a project applicant. The Corridor Plan would require environmental review to evaluate potential physical impacts. The CWD will be a responsible agency consulted during the environmental review process. Any physical impacts associated with the construction of new infrastructure to accommodate the increase in water demand created by commercial corridors and/or infill development are speculative as the changes in land use are unknown at this time.

For the above mentioned reasons impacts are considered *potentially significant*.

CITRUS HEIGHTS WATER DISTRICT

Corridor enhancement and residential infill, as proposed in the General Plan Update would affect the Citrus Heights Water District (CHWD) by designating corridors along Fair Oaks Boulevard and Greenback Lane for more intense land uses and encouraging higher density infill of vacant land (for illustration see Appendix B). The proposed General Plan Update will designate an additional equivalent of 4 acres for single family residential, 2 acres for multi family, and 3 acres for commercial uses above the 1993 General Plan levels. This land use intensification would increase the water demand in the Carmichael Water District's service area by 28 AFA above 1993 General Plan levels

during a normal water year. The Project demand for potable water is 901 AFA less than the 2005 estimate.

Surface water is the primary source of water for the CHWD. Surface water comprises approximately 88 percent of the water supply delivered annually by the San Juan Water District (SJWD), from which CHWD purchases surface water. SJWD has anticipated CHWD serving this territory utilizing the water resources available through SJWD in conjunction with groundwater wells within the CHWD service area. SJWD has sufficient water supply and treatment plant capacity to provide wholesale water to CHWD during normal water years. This surface water supply is supplemented by three existing and two planned groundwater wells within the CHWD service area. Groundwater resources are used for peaking, emergencies, drought, and environmental needs. In addition to surface water resources from SJWD and in-service area groundwater wells, the CHWD is interconnecting lines with the Orangevale Water Company and the Fair Oaks Water District. Citrus Heights normal water year supply is 31,270 AFA.

Impacts related to construction of the distribution pipeline extensions may occur and include construction impacts to native trees, migratory birds, and special status species, air quality impacts associated with particulate matter, erosion and sedimentation impacts; traffic and circulation impacts, and potential impacts to cultural/historical resources. These impacts will be assessed at such time specific development projects are proposed. Conveyance of the additional water demand resulting from the Project may result in construction level environmental impacts.

For the above mentioned reasons impacts are considered *potentially significant*.

DEL PASO MANOR

Corridor enhancement, as proposed in the General Plan Update would affect the Del Paso Manor Water District (DPMWD) by designating the corridor along Watt Avenue for more intense land uses (for illustration see Appendix B). The proposed General Plan will designate an additional equivalent of 8 acres for single family residential, 3 acres for multi family, and 2 acres for commercial uses. The Project will increase projected 2030 water demand by 79 AFA above estimated 2005 levels and by 41 AFA above 1993 General Plan normal year forecast levels.

DPMWD (D. Sedwick, 2009) is currently developing a Master Plan out to 2030. The Master Plan includes replacing distribution lines as well as replacing aging groundwater wells and bringing in surface water for conjunctive use. The DPMWD's service area is currently built out; as there are no undeveloped lots within the service area the district has enough water to meet redevelopment type growth. The DPMWD has enough water to meet projected demand.

The Master Plan includes replacing distribution lines as well as replacing aging groundwater wells and bringing in surface water for conjunctive use. Impacts related to the Master Plan improvements will not occur as a result of this project and are therefore not considered an impact of this project. No other infrastructure improvements are

anticipated. Though the existing infrastructure can accommodate the increased demand, distribution pipeline extensions might be necessary at the project level. Impacts related to construction of the distribution pipeline extensions may occur and include construction impacts to native trees, migratory birds, and special status species, air quality impacts associated with particulate matter, erosion and sedimentation impacts; traffic and circulation impacts, and potential impacts to cultural/historical resources. These impacts will be assessed at such time specific development projects are proposed. Conveyance of the additional water demand resulting from the Project may result in construction level environmental impacts.

For the above mentioned reasons impacts are considered *potentially significant*.

FAIR OAKS WATER DISTRICT

Corridor enhancement and residential infill, as proposed in the General Plan Update would affect the Fair Oaks Water District (FOWD) by designating the corridor along Fair Oaks Boulevard for more intense land uses and encouraging higher density infill of vacant land (for illustration see Appendix B). The proposed General Plan Update will designate an additional equivalent of 21 acres for single family residential, 10 acres for multi family, and 5 acres for commercial uses above the 1993 General Plan levels. This land use intensification would increase the water demand in the Carmichael Water District's service area by 116 AFA above 1993 General Plan levels during a normal water year. The Project demand for potable water is 250 AFA less than the 2005 estimate.

Surface water is the primary source of water for the FOWD. Surface water comprises approximately 80 percent of the water supply delivered annually by the SJWD, from which FOWD purchases surface water. FOWD service area utilizes water resources available through SJWD in conjunction with seven groundwater wells within the FOWD service area. SJWD has sufficient water supply and treatment plant capacity to provide wholesale water to FOWD during normal water years. This surface water supply is supplemented by seven groundwater wells within the FOWD service area. Groundwater resources are used for peaking, emergencies, drought, and environmental needs. In addition to surface water resources from SJWD and in-service area groundwater wells, the FOWD is interconnecting lines with the Orangevale Water Company and the Citrus Heights Water District.

Impacts related to construction of the distribution pipeline extensions may occur and include construction impacts to native trees, migratory birds, and special status species, air quality impacts associated with particulate matter, erosion and sedimentation impacts; traffic and circulation impacts, and potential impacts to cultural/historical resources. These impacts will be assessed at such time specific development projects are proposed. Conveyance of the additional water demand resulting from the Project may result in construction level environmental impacts.

For the above mentioned reasons impacts are considered *potentially significant*.

ORANGEVALE WATER COMPANY

Corridor enhancement and residential infill, as proposed in the General Plan Update would affect the Orange Vale Water Company (OVWC) by designating the corridor along Greenback Lane for more intense land uses and encouraging higher density infill of vacant land (for illustration see Appendix B). The proposed General Plan Update will designate an additional equivalent of 23 acres for single family residential, 12 acres for multi family, and 8 acres for commercial uses above the 1993 General Plan levels. The Project will increase projected 2030 water demand by 79 AFA above estimated 2005 levels and by 138 AFA above 1993 General Plan normal year forecast levels.

Surface water is the source of water for the OVWC. Surface water is delivered annually by the San Juan Water District, from which OVWC purchases surface water. OVWC provides potable water to its service area from the SJWD in conjunction with two groundwater wells within the OVWC service area. SJWD has sufficient water supply and treatment plant capacity to provide wholesale water to OVWC during normal water years. Groundwater resources are used for peaking, emergencies, drought, and environmental needs. In addition to surface water resources from SJWD and in-service area groundwater wells, the OVWC is interconnecting lines with the Citrus Heights Water District and the Fair Oaks Water District.

Impacts related to construction of the distribution pipeline extensions may occur and include construction impacts to native trees, migratory birds, and special status species, air quality impacts associated with particulate matter, erosion and sedimentation impacts; traffic and circulation impacts, and potential impacts to cultural/historical resources. These impacts will be assessed at such time specific development projects are proposed. Conveyance of the additional water demand resulting from the Project may result in construction level environmental impacts.

For the above mentioned reasons impacts are considered *potentially significant*.

RIO LINDA WATER DISTRICT

Residential infill, and the West of Watt New Growth Area, as proposed in the General Plan Update, would affect the Rio Linda/Elverta Community Water District (RLECWD) by encouraging higher density infill of vacant land and developing the West of Watt New Growth Area (for illustration see Appendix B). The proposed General Plan will designate an additional equivalent of 25 acres for single family residential and 13 acres for multi family. The Project will increase projected 2030 water demand by 2,085 AFA above 2005 levels and by 126 AFA above 1993 General Plan forecast levels.

According to RLECWD (Tafoya), the RLECWD has adequate groundwater resources to serve this relatively small increase in demand. The RLECWD (Tafoya) also indicated that necessary upgrades of their delivery system to increase water pressure consistent with standards is currently being pursued, and the existing infrastructure with the additional water pressure should be adequate to serve the proposed General Plan land use projections.

Impacts related to construction of the distribution pipeline extensions may occur and include construction impacts to native trees, migratory birds, and special status species, air quality impacts associated with particulate matter, erosion and sedimentation impacts; traffic and circulation impacts, and potential impacts to cultural/historical resources. These impacts will be assessed at such time specific development projects are proposed. Conveyance of the additional water demand resulting from the Project may result in construction level environmental impacts.

For the above mentioned reasons impacts are considered *potentially significant*.

SACRAMENTO COUNTY WATER AGENCY NORTH

Corridor enhancement and residential infill, as proposed in the General Plan Update, would affect the Sacramento County Water Agency (SCWA) by designating the corridor along Fair Oaks Boulevard for more intense land uses and encouraging higher density infill of vacant land (for illustration see Appendix B) within its Arden Park Vista service area. The proposed General Plan Update designates an additional equivalent of 9 acres single family residential, 4 acres multi family, and 1 acre for commercial uses in these areas. This land use intensification would increase the water demand to the Sacramento County Water Agency Arden Park Vista service area by 45 acre-feet during a normal water year. The General Plan Update demand for potable water is 275 AFA less than the 2005 estimate.

According to a representative of the SCWA (pers. com. Berkebile, 2009) the Agency has sufficient groundwater to accommodate the projected demand increase within the Arden Park Vista service area. SCWA can provide water service for the proposed corridor and infill within the Arden Park Vista service area.

SCWA further indicated that infrastructure improvements such as additional wells and distribution pipeline extensions will be necessary to convey the additional water, though these improvements will likely take place within existing right of ways. Impacts related to construction of wells and distribution pipeline extensions may occur. These include construction impacts to native trees, migratory birds, and special status species, air quality impacts associated with particulate matter, erosion and sedimentation impacts; traffic and circulation impacts, and potential impacts to cultural/historical resources. These impacts will be assessed at such time specific development projects are proposed. Conveyance of the additional water demand resulting from the Project may result in construction level environmental impacts.

For the above mentioned reasons impacts are considered *potentially significant*.

SACRAMENTO SUBURBAN WATER DISTRICT

Corridor enhancement, residential infill, and the West of Watt New Growth Area, as proposed in the General Plan Update would affect the Sacramento Suburban Water District (SSWD) by designating corridors along Watt Avenue, Auburn Boulevard, Fair Oaks Boulevard, and Fulton Avenue for more intense land uses, encouraging higher

density infill of vacant land and developing the West of Watt New Growth Area (for illustration see Appendix B). The proposed General Plan will designate an additional equivalent of 453 acres for single family residential, 226 acres for multi family, and 71 acres for commercial uses. The Project will increase projected 2030 water demand by 462 AFA above 2005 levels and by 2,434 AFA above 1993 General Plan forecast levels.

According to SSWD official (Roscoe, 2009), the SSWD has been preparing an updated Water Master Plan based on SACOG's adopted Regional Blueprint vision. While the SSWD Master Plan has not been finalized or released, a review of the projected growth used by the SSWD consultant to prepare the Master Plan indicates that the additional households used for their analysis was consistent with that projected for the proposed Sacramento County General Plan. According to Roscoe, SSWD would have an adequate groundwater supply to meet the new demand without adversely affecting the groundwater pumping limitation imposed by the Water Forum Agreement. The most recent estimated total water demand necessary to carry out the Regional Blueprint is approximately 47,000 to 50,000 AFA. Roscoe also indicated that SSWD is preparing to implement an infrastructure plan to address necessary upgrades of their delivery system as well as fire flow requirements.

The SSWD is affected by the proposed West of Watt Growth Area. SSWD will have sufficient water to serve this projected growth. Construction of infrastructure to deliver water to the New Growth Area could result in construction related impacts such as dust, noise, traffic congestion, and air quality effects.

Commercial Corridors and Residential Infill is also proposed within the SSWD service area. Commercial Corridor and infill development within the SSWD will not have a significant impact on water supply, as the District will have sufficient water to serve such growth. Potential impacts may occur due to infrastructure improvements related to distribution pipeline extensions to serve new development. These impacts will be assessed at such time specific development project are proposed.

For the above mentioned reasons impacts are considered *potentially significant*.

SAN JUAN WATER DISTRICT

Corridor enhancement and residential infill, as proposed in the General Plan Update would affect the SJWD by designating the corridor along Greenback Lane for more intense land uses and encouraging higher density infill of vacant land (for illustration see Appendix B). The proposed General Plan Update will designate an additional equivalent of 3 acres for single family residential, 2 acres for multi-family, and 27 acres for commercial uses above the 1993 General Plan levels. This land use intensification would increase the water demand in the SJWD's service area by 22 AFA above 1993 General Plan levels during a normal water year. The Project demand for potable water is 45 AFA less than the 2005 estimate.

Surface water from Folsom Lake is the primary source of water for the SJWD. SJWD has sufficient water supply and treatment plant capacity to provide retail water to their service area as well as to the San Juan Family Group, which consists of Citrus Heights Water District, Orange Vale Water Company, Fair Oaks Water District, and the portion of the City of Folsom known as Ashland. SJWD also provides water to portions of Roseville and Granite Bay.

Impacts related to construction of the distribution pipeline extensions may occur and include construction impacts to native trees, migratory birds, and special status species, air quality impacts associated with particulate matter, erosion and sedimentation impacts; traffic and circulation impacts, and potential impacts to cultural/historical resources. These impacts will be assessed at such time specific development projects are proposed. Conveyance of the additional water demand resulting from the Project may result in construction level environmental impacts.

For the above mentioned reasons impacts are considered *potentially significant*.

SOUTH AREA

CALIFORNIA AMERICAN WATER COMPANY

Corridor enhancement, residential infill, the West of Watt New Growth Area, and the Jackson New Growth Area, as proposed in the General Plan Update, would affect the California American Water Company (CalAm) by designating corridors along Fulton Avenue, Folsom Boulevard, Florin Road, Stockton Boulevard, and Auburn Boulevard for more intense land uses, encouraging higher density infill of vacant land, and developing the West of Watt New Growth Area and the Jackson New Growth Area (for illustration see Appendix B). In total, the proposed General Plan Update designates an additional equivalent of 1,136 acres single family residential, 159 acres multi family, and 53 acre for commercial/industrial uses within the CalAm's Sacramento County service areas. The Project will increase projected 2030 water demand by 3,034 AFA above 2005 levels and by 4,084 AFA above 1993 General Plan normal year forecast levels.

CalAm has six distinct service areas that are located within Sacramento County. The service areas in the northern portion of the County are Antelope, Lincoln Oaks, and Arden. The service areas in the southern portion of the County are Suburban/Rosemont, Security Park, and Parkway. The Security Park service area does not contain any proposed development; therefore there is no further discussion of that area in this analysis. A representative of CalAm (J. Kilpatrick) provided a brief analysis of potential impacts in each service area. The following discussions reflect the ability of CalAm to serve the additional demand and potential constraints to service, as presented in that analysis, for the service areas the South Area.

PARKWAY

Within the Parkway service area an additional equivalent of 254 acres single family residential, 127 acres multi family, and 79 acres for commercial/industrial uses are

designated above General Plan levels. The Project will increase projected 2030 water demand by 1,381 AFA above estimated 2005 levels and by 1,473 AFA above 1993 General Plan normal year forecast levels.

A majority of the corridor enhancement along Stockton Boulevard and a small portion along Florin Road is located within the Parkway service area (see Appendix B for illustration). In order to accommodate this development, additional water supply will be necessary. According to CalAm the district will need to either drill more wells or acquire additional surface water from the City of Sacramento to supply the anticipated additional demand. Though CalAm has indicated that obtaining the necessary additional supply is feasible, it is possible that unforeseen barriers exist or will exist in the future. Though there are existing laws requiring the examination of water supply as part of large development projects, mitigation is included recommending a new General Plan policy that would require demonstration of water supply before a project could be approved or constructed. Despite this measure, the uncertainties of future water supply cause this impact to remain potentially significant.

The methods that may be used to obtain the additional water supply will also result in impacts. These impacts may include loss of biological resources, loss of cultural resources, air quality impacts associated with construction work, fluctuations in groundwater levels, and water quality degradation. The secondary impacts of obtaining additional water supply are discussed in the Regional Impacts section of this chapter.

CalAm stated that infrastructure improvements to connect gaps along Stockton Boulevard and upsize of existing pipes will be necessary to supply the additional water. These improvements will result in impacts which may include construction impacts to native trees, migratory birds, and special status species, air quality impacts associated with particulate matter, erosion and sedimentation impacts; traffic and circulation impacts, and potential impacts to cultural/historical resources. These impacts will be assessed at such time specific development projects are proposed. Conveyance of the additional water demand resulting from the Project may result in construction level environmental impacts.

The combined effect of the impacts related to obtaining additional water supplies, the uncertainties inherent in obtaining those supplies, the fact that obtaining supplies may affect sensitive areas, and construction related to conveyance of the additional water leads to the conclusion that impacts will be *significant and unavoidable*.

SUBURBAN/ROSEMONT

Within the Suburban/Rosemont service area an additional equivalent of 829 acres single family residential and 6 acres multi family uses are designated above 1993 General Plan levels. Commercial/industrial uses are anticipated to decrease by 29 acres compared to 1993 General Plan buildout. The Project will increase projected 2030 water demand by 2,321 AFA above estimated 2005 levels and by 2,342 AFA above 1993 General Plan normal year forecast levels.

The northwestern portion of the Jackson New Growth Area is within the Suburban/Rosemont service area (see Appendix B for illustration). In order to accommodate the Project, additional water supply will be necessary. According to CalAm the district will need to either drill more wells or acquire additional surface water from the City of Sacramento in order to supply the anticipated additional demand. The portion of the Jackson New Growth Area that lies west of Bradshaw Road is within the City of Sacramento's Place of Use (POU) and can therefore receive the City's surface water, given an agreement between CalAm and the City is made. The portion that lies east of Bradshaw Road is outside the City's POU and therefore cannot be served by the City's surface water. This area will have to be served by groundwater. As stated above, CalAm has indicated that additional wells will have to be drilled to serve this area.

Although CalAm has indicated that obtaining the necessary additional supply is feasible, it is possible that unforeseen barriers exist or will exist in the future. Though there are existing laws requiring the examination of water supply as part of large development projects, mitigation is included recommending a new General Plan policy that would require demonstration of water supply before a project could be approved or constructed. Despite this measure, the uncertainties of future water supply cause this impact to remain potentially significant.

The methods that may be used to obtain the additional water supply will also result in impacts. These impacts may include loss of biological resources, loss of cultural resources, air quality impacts associated with construction work, fluctuations in groundwater levels, and water quality degradation. The secondary impacts of obtaining additional water supply are discussed in the Regional Impacts section of this chapter.

CalAm stated that infrastructure improvements including additional wells, additional storage, and upsizing of planned pipes will be necessary to supply the additional water. These improvements will result in impacts which may include construction impacts to native trees, migratory birds, and special status species, air quality impacts associated with particulate matter, erosion and sedimentation impacts; traffic and circulation impacts, and potential impacts to cultural/historical resources. These impacts will be assessed at such time specific development projects are proposed. Conveyance of the additional water demand resulting from the Project may result in construction level environmental impacts.

The combined effect of the impacts related to obtaining additional water supplies, the uncertainties inherent in obtaining those supplies, the fact that obtaining supplies will affect known sensitive areas, and construction related to conveyance of the additional water leads to the conclusion that impacts will be *significant and unavoidable*.

Overall, CalAm will need to acquire additional water within its service areas to accommodate the projected increase in demand anticipated from buildout of the General Plan Update (see CalAm North Area discussion). Secondary impacts due to obtaining the additional water may occur as well as construction impacts related to

infrastructure. For these reasons impacts to the greater CalAm service area are *significant and unavoidable*.

FLORIN COUNTY WATER DISTRICT

Corridor enhancement and residential infill, as proposed in the General Plan Update, would affect the Florin County Water District (FCWD) by designating a corridor along Florin Road for more intense land uses and encouraging higher density infill of vacant land (for illustration see Appendix B). FCWD obtains its water supply from ten groundwater wells. The proposed General Plan will designate an additional equivalent of 63 acres for single family residential, 32 acres for multi-family residential, and 15 acres for commercial uses over existing 1993 General Plan acreage. The Project will increase projected 2030 water demand by 459 AFA above estimated 2005 levels and by 355 AFA above 1993 General Plan normal year forecast levels.

Most of the land proposed for higher density is vacant land that abuts mixed uses (industrial, commercial, and residential) along Florin Road, between French Road and Power Inn Road. The FCWD does not meet the criteria that require the district to prepare an Urban Water Management Plan. The FCWD was contacted during the NOP process for the environmental document preparation for the General Plan Update. The district had no comments at that time.

Increasing the density of the land uses in the Commercial Corridors will increase the baseline water demand for FCWD to 3,082 AFA. Increasing the density of parcels and developing vacant parcels in the FCWD will increase normal water year demand for single family residences to 1,780 acre feet per year, for multi-family residences to 346 acre feet per year, and for commercial/industrial uses to 956 AFA. The FCWD indicates a total well production of 2,668 AFA. There is inadequate existing water supply to meet the proposed General Plan Update during normal water years. This water supply impact for the FCWD is considered *potentially significant* and could be considered *significant and unavoidable* if additional water supplies can not be attained. However, development of the commercial corridor and/or infill projects within the FCWD can not be approved unless there is an available water supply, therefore, in order the meet General Plan Update density requirements, the increase in density would have to occur within another water purveyor's district.

Upgrades in infrastructure will be needed for conveyance of the water supply and fire suppression. Potential impacts associated with new or replacement water supply infrastructure construction in the Commercial Corridors may include construction impacts to native trees, migratory birds, and impacts to special status species; air quality impacts associated with particulate matter; erosion and sedimentation impacts associated with construction in a floodplain; traffic and circulation impacts associated with construction in Florin Road; and potential impacts to historical resources. These impacts will be assessed at such time specific development projects are proposed. The need for any future construction of infrastructure to provide water supply for urban uses and fire suppression to accommodate commercial corridors and infill development would be determined by FCWD at the time a specific Commercial Corridor Plan is

developed by the County of Sacramento or infill is proposed by a project applicant. The Corridor Plan, which would provide a guide to land use development within a particular corridor, would require environmental review to evaluate potential physical impacts to the environment. The FCWD will be a responsible agency consulted during the environmental review process. Mitigation measures may be recommended and adopted for inclusion into the Corridor Plan. Infill development may require environmental review with appropriate mitigation measures adopted by the hearing body. Any physical impacts associated with the construction of new infrastructure to accommodate the increase in water demand created by commercial corridors and/or infill development are speculative as the changes in land use are unknown at this time. The impacts associated in infrastructure are considered *potentially significant.*

For the above mentioned reasons impacts are considered *potentially significant*.

CITY OF FOLSOM

Corridor enhancement, as proposed by the General Plan Update, would occur within the City of Folsom water supply service area, by designating the corridor along Folsom Boulevard for more intense land uses (for illustration see Appendix B). The proposed General Plan Update will designate an additional equivalent of 8 acres for single family residential, 4 acres for multi family, and 1 acre for commercial uses over the 1993 General Plan. The Project will increase projected 2030 water demand by 3,860 AFA above estimated 2005 levels and by 43 AFA above 1993 General Plan normal year forecast levels.

Although Easton is considered a New Growth Area in the General Plan Update, the Easton Project EIR analyzed water supply and demand, which were included within the projections of the 1993 General Plan. The California Water Code Sections 10910 through 10912 (commonly referred to as Senate Bill 610), requires an identified water purveyor to prepare a water supply assessment (WSA) for proposed large development projects subject to CEQA and to include it within the EIR. The projected water demands of the Easton Project were not included in the City of Folsom's 2005 Urban Water Management Plan; therefore, the City of Folsom prepared the Easton WSA pursuant to SB 610. It was reported in the Easton WSA, that the City of Folsom's normal year water supply is 34,981 AFA. This supply comes from Pre-1914 Surface Water Rights, Central Valley Project Supply, and Aerojet's Groundwater Extraction Treatment Facilities A & B. It was projected that the Easton Project would increase demand by 3,343 AFA over the projected baseline of 27,069 AFA, by the year 2030. Total water demands, including the Easton Project, were therefore 30,412 AFA during a normal water year. It was determined that the City of Folsom would be able to supply sufficient water to meet the increase demands of the Easton Project; thus, development associated with the Easton Project would result in a *less than significant* impact to water supply.

Additionally, the construction of new water distribution pipelines within the Easton project area would result in minimal adverse effects on the environment since the pipelines would be constructed within the footprint of proposed roads, buildings, homes or other development. With the implementation of a Traffic Management Plan to

minimize traffic impacts from off-site construction activities along Folsom Boulevard and Prairie City Road, the impact of construction of water distribution pipelines was considered less than significant.

The proposed General Plan Update would increase water demands over the projected demands by 39 AFA. Since the City of Folsom has an available water supply of 34,981 AFA in a normal water year; the increase in demand of 39 acre-feet (as a result of corridor development), can be supplied by the City of Folsom, during a normal water year.

Upgrades in infrastructure will be needed for the conveyance of water, and for fire suppression. The potential impacts associated with new water supply infrastructure construction in the commercial corridor may include impacts to native trees, migratory birds, and impacts to special status species; air quality impacts associated with particulate matter; erosion and sedimentation impacts; traffic and circulation impacts associated with construction in existing roadways and potential impacts to historical resources. The need for any future construction of infrastructure to provide water supply for urban uses and fire suppressions to accommodate development within a commercial corridor would be determined by the City of Folsom at the time a Commercial Corridor Plan is developed by the County of Sacramento. The Corridor Plan would require environmental review to evaluate potential physical impacts. The City of Folsom would be a responsible agency consulted during the environmental review process. Impacts associated with expansion of infrastructure are considered *potentially significant*.

In response to a request for comments on the water supply analysis, the City of Folsom noted that by 2030 there may be changes related to their contracts and service area, but did not recommend changes to the analysis of demand. For the above mentioned reasons impacts are considered *potentially significant*.

FRUITRIDGE VISTA WATER COMPANY

Corridor enhancement and residential infill, as proposed in the General Plan Update, would affect the Fruitridge Vista Water Company (FVWC) by designating corridors along Florin Road, Martin Luther King Jr. Boulevard, Franklin Boulevard, and Stockton Boulevard for more intense land uses and encouraging higher density infill of vacant land (for illustration see Appendix B). The proposed General Plan Update designates an additional equivalent of 69 acres single family residential, 34 acres multi family, and 24 acres for commercial uses over the 1993 General Plan. The Project will increase projected 2030 water demand by 180 AFA above estimated 2005 levels and by 405 AFA above 1993 General Plan normal year forecast levels.

According to a representative of the FVWC (Cook, 2009), the district is currently experiencing a decrease in production due to MTBE contamination in some of their wells. FVWC indicated that they are in the process of constructing replacement wells, purchasing water from the City of Sacramento, and installing pipeline improvements; however, they are unsure when this water supply will be available due to the uncertainty

of funding. FVWC stated that their existing infrastructure is sufficient to support the additional demand when the water supply is secured. Currently FVWC does not have sufficient water supply to support the additional demand proposed by the General Plan Update, however additional water supply may be available in the future. FVWC has indicated that the planned acquisition and improvements will provide sufficient supply for buildout under the existing General Plan; however additional water will have to be acquired to supply growth over that which is planned in the existing General Plan. If FVWC is unable to secure additional sources of water, the equivalent to 69 acres of single family residential, 34 acres of multi family, and 24 acre commercial land uses may need to be accommodated elsewhere to meet the increase in density proposed by the General Plan Update.

Although FVWC indicates that their existing infrastructure can convey the additional demand proposed by the General Plan, potential impacts may occur due to infrastructure improvements related to distribution pipeline extensions to serve new development. These improvements may include construction impacts to native trees, migratory birds, and impacts to special status species; air quality impacts associated with particulate matter; erosion and sedimentation impacts associated with construction; traffic and circulation impacts; and potential impacts to cultural/historical resources. These impacts will be assessed at such time specific development projects are proposed. Conveyance of the additional water demand resulting from Corridor enhancement and residential infill, as proposed in the General Plan Update, may result in construction level environmental impacts.

For the above mentioned reasons impacts are considered *potentially significant*.

GOLDEN STATES WATER COMPANY

Corridor enhancement and residential infill, as proposed in the General Plan Update, would occur within the Golden States Water Company (GSWC) by designating the corridor along Folsom Boulevard for more intense land uses and encouraging higher density infill of vacant land (for illustration see Appendix B). The proposed General Plan Update will designate an additional equivalent of 23 acres for single family residential, 12 acres for multi family, and eight acres for commercial uses of unincorporated county designated lands within the GSWC service area over 1993 General Plan. This land use intensification would increase the water demand to GSWC service area by 153 acre-feet during a normal year. The General Plan Update demand for potable water is 799 AFA less than the 2005 estimate.

A representative of Golden States Water Company (Insco, 2009) was contacted regarding the availability of water to serve the proposed land uses in their service area and the necessity of improvements to the infrastructure system to service the commercial corridors. In response, the representative provided a copy of the Company's UWMP. GSWC UWMP states that the district obtains its water supply from five sources: surface water, local groundwater, replacement water under a settlement agreement with Aerojet, Aerojet Replacement Water through SCWA, and a SMUD Water Transfer. It should be noted that the agreement with Aerojet has expired;

therefore, the planned Aerojet water supplies through SCWA will not be available. GSWC may have to pursue a separate agreement with Aerojet to acquire this anticipated Aerojet remediated water supply.

GSWC pumps groundwater from 15 production wells located in the Central Groundwater Basin. In some areas of the basin, groundwater has been impaired by contaminants, including volatile organic compounds (VOCs), perchlorate, and N-nitrosodimethylamine (NDMA) from Aerojet's rocket propellant manufacturing and testing facility located immediately east of the service area. Groundwater contamination has forced GSWC to decommission wells. According to the GSWC UWMP, by 2015 all but two of GSWC's wells will experience contamination levels that may cause their inactivation. The two remaining wells are not expected to be affected by contamination until at least 2032. Groundwater loss as a result of this contamination is proposed to be replaced under an agreement with Aerojet; however future availability is uncertain at this time.

At buildout of the commercial corridor proposed in the General Plan Update the additional demand will be 0.7% of the water demand within GSWC's Cordova service area (includes the City of Rancho Cordova). This minor increase in demand is expected to be met by increasing the amount of water pumped from groundwater. This will require the construction of additional wells outside of the influence of the Aerojet and Mather contamination plumes. Upgrades that are needed to deliver water supply and fire suppression infrastructure may also be needed. Potential impacts associated with new or replacement water supply infrastructure construction in the Commercial Corridors may include construction impacts to native trees, migratory birds, and impacts to specials status species; air quality impacts associated with particulate matter; erosion and sedimentation impacts associated with construction; traffic and circulation impacts associated with construction along Folsom Boulevard; and potential impacts associated with cultural/historical resources. The need for any future construction of infrastructure to provide adequate water supply for urban uses and fire suppression to accommodate commercial corridors and infill development would be determined by GSWC at the time a Commercial Corridor Plan is developed by the County of Sacramento or infill is proposed by a project applicant. The Corridor Plan would require environmental review to evaluate potential physical impacts to the environment. The GSWC will be a responsible agency consulted during the environmental review process. Any physical impacts associated with the construction of new infrastructure to accommodate the increase in water demand created by commercial corridors and/or infill development are speculative as the changes in land use are unknown at this time.

For the above mentioned reasons impacts are considered *potentially significant*.

CITY OF SACRAMENTO

Corridor enhancement and residential infill along Stockton Boulevard, as proposed in the General Plan Update, would occur in areas located within the unincorporated County that receive water service from the City of Sacramento (for illustration see Appendix B). The proposed General Plan Update designates an additional equivalent

of 23 acres single family residential, 11 acres multi family, and one acre for commercial uses over 1993 General Plan designations in these areas. The Project will increase projected 2030 water demand by 6,684 AFA above estimated 2005 levels and by 114 AFA above 1993 General Plan normal year forecast levels.

According to a representative of the City of Sacramento (pers. com. Peifer, 2009) the City has sufficient water to accommodate the projected demand increase within the City's service area without exceeding its surface water entitlements. The City of Sacramento can provide water service for the proposed corridor and infill within its service area.

The City of Sacramento indicated that the current infrastructure is adequate to convey the additional water, although distribution pipeline extensions (not transmission mains) might be necessary at the project level. Impacts related to construction of the distribution pipeline extensions may occur and include construction impacts to native trees, migratory birds, and impacts to special status species; air quality impacts associated with particulate matter; erosion and sedimentation impacts; traffic and circulation impacts; and potential impacts to cultural/historical resources. These impacts will be assessed at such time specific development projects are proposed. Conveyance of the additional water demand resulting from corridor enhancement and residential infill, as proposed in the General Plan Update, may result in construction level environmental impacts.

For the above mentioned reasons impacts are considered *potentially significant*.

SACRAMENTO COUNTY WATER AGENCY (ZONE 40)

The entire Grant Line East New Growth Area and most of the Jackson Highway Corridor New Growth Area lies within Zone 40. The portions of the Jackson Highway Corridor that are outside Zone 40 are in the far northwestern portion of the New Growth Area – this section is within the California American Water Company service area. There will also be additional growth within Zone 40 associated with the buildout of Vineyard Springs, North Vineyard Station, and the Florin Vineyard Gap planned communities. Water Resources prepared a technical report for the General Plan Update (Appendix B, referred to throughout this chapter as the technical report), which is the basis for all of the following impact discussions.

The Zone 40 Water Supply Master Plan projected and planned for water supply to the year 2030. In the 2030 year, the Zone 40 Water Supply Master Plan forecast for the unincorporated water demand is 31,457 AFA, but this figure is based on the existing 1993 General Plan land use designations and the planned communities in the area. A representative of Sacramento County Water Resources, Water Supply (T. Berkebile) indicated that if the Project were approved, the Zone 40 Water Supply Master Plan will need to be updated to include plans for the new growth. The technical report indicates that the No Project unincorporated County demand scenario, which includes Cordova Hills, is forecast to be 37,667 AFA. The Project will increase the unincorporated County demand to 64,385 AFA. This information is presented in Table WS-28, below. The

projected demand for the City of Elk Grove and the City of Rancho Cordova, are 46,897 AFA and 25,358 AFA, respectively, for a total of 72,255 AFA. Project demand plus City of Elk Grove and City of Rancho Cordova demand is 34,541 AFA over that projected for 2030 in the adopted WSIP. Existing (2005) water demand is 9,819 AFA.

Table WS-28 Projected Zone 40 Water Demand (AFA) – Unincorporated County

Condition	2030 Demand Projection	Increase Above No Project	Increase Above 1993 General Plan	Increase Above Existing (2005)
1993 General Plan [1]	31,457	---	---	21,638
No Project	37,667	---	5,427	27,848
Proposed Project	64,385	26,718	32,145	54,566

1. This scenario is equivalent to the adopted Zone 40 Water Supply Master Plan

Table WS-29 Projected Zone 40 Water Demand (AFA) – Incorporated and Unincorporated County

Condition	2030 Demand Projection
1993 General Plan and Cities	103,712
No Project and Cities	109,922
Proposed Project and Cities	136,640

As described in the Setting section, the current Zone 40 yield is 131,727 AFA. The water demand from the cities plus from the 1993 General Plan (equivalent to the Zone 40 Water Supply Master Plan) is 103,712 AFA, and the water demand from the cities plus the No Project is 109,922. Both of these amounts can be accommodated by current projected water yields. However, with the Project the demand increases to 136,640 AFA, which is approximately 4,913 AFA beyond projected supply and well beyond the amount planned for 2030 distribution in the Zone 40 Water Supply Master Plan.

The technical report indicates that to meet increased demands in the future SCWA can consider several options, emphasizing conservation, use of recycled water, and enhancing its conjunctive use program. SCWA could also pursue actions to further the use of groundwater where practical and any additional remediated water from contaminated groundwater in the Central Groundwater Basin. Additional surface water would be needed to implement the enhanced conjunctive use program, but these supplies are potentially expensive, both because they are in demand throughout the state and because yields may become increasingly uncertain as the effects of climate

change become apparent. The technical report in Appendix B provides extensive detail about these measures, which are summarized in the paragraphs below.

Water conservation is emphasized in the Water Forum Agreement and could be substantially expanded with more public outreach, incentives, and new ordinances. This could include the institution of tiered pricing, implementing the California "Model Water Efficient Landscape Ordinance", and establishing "extraordinary water conservation" measures such as restricting planting new turf in new developments. Recycled water usage could be expanded if SCWA shared the cost to increase treatment and distribution of recycled water with the Sacramento Regional County Sanitation District. This water could be used to offset non-potable water demand, but would be an expensive option to pursue.

A more robust conjunctive use program would need to add active groundwater banking to the existing in-lieu recharge program. This could be done by diverting water at the Freeport Regional Water Project intake and using "shoulder" capacity, or any other capacity not required for direct surface water use (such as during winter and spring when flows are high but demands are low). Potential recharge methods for this water include using gravity infiltration at reclaimed mining pits and naturally permeable areas along Deer Creek or the Cosumnes River, and active recharge through injection wells. The water for recharge could come through new water rights (which has become available due to revocation of the United States Bureau of Reclamation Auburn Dam water right), the purchase of additional wholesale water from the City of Sacramento, the purchase of surface water from Sacramento Suburban Water District, purchasing existing water rights from holders upstream, spill water from the United States Bureau of Reclamation, and additional remediated water.

Some additional groundwater could be acquired through agricultural land conversion that results in abandonment of historical pumping, additional remediated water supplies, a re-evaluation of the sustainable yield in the Central Groundwater Basin (if that endeavor concluded that additional supplies were available), and production of banked recharge water using new wells.

Table 6 of the technical report summarizes the potential water supply yields, reliability, cost, and effects from each of the water sources and strategies discussed above. This table is also provided below (Table WS-30), along with a table which lays out the Water Resources-preferred approach to meet the Project water demand (Table WS-31). Though none of the other water purveyors have chosen to do so, the Sacramento County Department of Water Resources has included water supply loss due to climate change in the cumulative need for the preferred scenario. The scenario assumes that water yields may be reduced by 25% due to climate change. As a result of this assumption, the preferred scenario indicates that the Zone 40 Water Supply Master Plan total additional water supply needed to support the Project is 33,445 AFA.

Table WS-30 Summary of Potential Zone 40 Water Supply Actions to Meet Cumulative Water Demands

Action Area	Supporting Activities	Potential Yield (AFA)	Reliability/ Availability	Cost	Potential Effects
Enhanced Conservation	• Institute tiered pricing • Implement state model ordinance • Restrict turf and other plantings	≤15,000	High	Moderate	• Decreased demand • Increased enforcement needs
Recycled Water	• Expand existing program • Develop treatment, conveyance and distribution system	≤ 5,000	High	Very High	• Additional land disturbance within and outside of developed areas
Robust Conjunctive Use	• Add active recharge to in-lieu • Use unused Freeport capacity • Develop gravity recharge in mining pits and naturally permeable areas • Developed listed sources below	≤ 30,000 overall [1]	High overall	High	• Additional land disturbance within and outside of developed areas • Wider annual variation in groundwater levels while long-term average levels remain unchanged • Source-specific effects listed below
Expanded Water Right	• Apply for storage right	≤ 20,000	Moderate	Low	• Decreased Sacramento River flows when Delta in excess balance
City of Sacramento wholesale water	• Use banked raw water where POUs overlap Zone 40 (or direct as below)	≤10,000[2]	High	Low	• Decreased Sacramento River flows when Delta in excess balance
Local water transfer	• Purchase Sac Suburban entitlement available in dry and driest years	5,000 – 10,000	Low	Moderate	• Increased American River flows in dry and driest years
Water rights transfers	• Purchase rights from agricultural users in Sac River watershed	10,000 – 30,000	High	Very High	• Increased Sacramento Rivershed flows in most years • Dewatering of established wildlife habitat
Spill water	• Divert from Folsom South Canal	≤ 5,000	Very Low	Very Low	• Decreased river flows during very wet periods
Remediated Water	• Use additional for recharge (or	≤ 10,000[3]	Moderate	High	• Increased American River flows

Action Area	Supporting Activities	Potential Yield (AFA)	Reliability/ Availability	Cost	Potential Effects
	direct non-potable uses as below)				in all years • Depletion of Central basin yields
Production of banked recharge water	• Develop additional wells and distribution system	≤ 30,000 overall [1]	High	High	• Land disturbance within newly developed areas
Surface Water	• Purchase City treated water • Convey through a Florin connection	≤ 10,000[2]	High	High	• Decreased Sacramento River flows when Delta in excess balance
Groundwater	• Develop sources below	≤ 15,000 overall	High	High	• Source-specific effects listed below
Agricultural land conversion	• Credit production from closed agricultural wells	≤ 5,000	High	Very Low	• Land converted from ag/open space to developed • No increase in groundwater use
Remediated water	• Direct use through new conveyance and distribution system	≤ 10,000[3]	Moderate	High	• Depletion of Central basin yield • Land disturbance from conveyance construction
Central Groundwater Basin re-evaluation	• Support investigations and analyses • Develop additional wells and distribution system	≤ 10,000	High	High	• Decreased levels commensurate with increased yield • Land disturbance within newly developed areas

1. Total potential of all sources combined; production is that required to recover recharge water and does not add to the overall groundwater potential yield.

2. Total wholesale raw and treated water together would not exceed 15,000 acre-feet annually.

3. Total remediated water used for recharge and used directly would not likely exceed 10,000 acre-feet.

Table WS-31
Summary of Preferred Zone 40 Water Supply Actions to Meet Project Demand [1] of 33,445 AFA

Action Area	Expected Yield (AFA)	Reliability/ Availability	Cost	Potential Effects
Enhanced Conservation	10,000	High	Moderate	• Decreased demand • Increased enforcement needs
Recycled Water	2,000	High	Very High	• Additional land disturbance within and outside of developed areas
Robust Conjunctive Use	20,000 overall [2]	High overall	High overall	• Additional land disturbance within and outside of developed areas • Wider annual variation in groundwater levels while long-term average levels remain unchanged • Source-specific effects listed below
Expanded Water Right	21,000[3]	Moderate	Low	• Decreased Sacramento River flows when Delta in excess balance
City of Sacramento wholesale water	1,500[3]	High	Low	• Decreased Sacramento River flows when Delta in excess balance
Remediated Water	2,500[3]	Moderate	High	• Increased American River flows in all years • Depletion of Central basin yields
Production of banked recharge water	20,000 overall [2]	High	High	• Land disturbance within newly developed areas
Groundwater	2,000 overall	High overall	Very low	• Source-specific effects listed below
Agricultural land conversion	2,000	High	Very Low	• Land converted from ag/open space to developed • No increase in groundwater use

1. Combined with effect of climate change on additional sources
2. Total potential of all sources combined; production is that required to recover recharge water and does not add to the overall groundwater potential yield.
3. This amount is based on the assumption that 20 percent of the banked volume will be lost to the aquifer before recovery.

Including the city demand, the total Zone 40 2030 demand increases to 38,445 AFA (with the effects of climate change). The water supply actions preferred to serve the cumulative regional demands are similar to those used in the Project with an additional 1,500 acre-foot per year increase in Water Conservation, a 1,000 acre-foot per year increase in Recycled Water use (which would be put to use in Elk Grove) and a 2,000 acre-foot per year increase in Groundwater Banking.

The Project will increase projected 2030 water demand by 54,566 AFA above existing (2005) levels, by 32,145 AFA above 1993 General Plan forecast levels, and by 26,718 AFA above No Project forecast levels. The Project will exceed existing projected water demands by approximately 33,755 AFA with the effects of climate change, and including the cities by 38,445 AFA. This is a significant impact which could be avoided by implementing strategies to conserve water and obtain additional water. Though the Sacramento County Department of Water Resources has indicated that obtaining the necessary additional supply is feasible, it is possible that unforeseen barriers exist or will exist in the future – such as additional or changed regulations related to water flows within the Delta. Though there are existing laws requiring the examination of water supply as part of large development projects, mitigation is included recommending a new General Plan policy that would require demonstration of water supply before a project could be approved or constructed. Despite this measure, the uncertainties of future water supply cause this impact to remain potentially significant.

The methods that may be used to obtain the additional water supply will also result in impacts. These impacts include loss of biological resources, loss of cultural resources, air quality impacts associated with construction work, fluctuations in groundwater levels, and water quality degradation. The secondary impacts of obtaining additional water supply are discussed in the Regional Impacts section of this chapter, because these secondary impacts are not unique to Zone 40. The combined effect of the impacts related to obtaining additional water supplies, the uncertainties inherent in obtaining those supplies, and the fact that obtaining supplies will affect known sensitive areas, leads to the conclusion that impacts will be *significant and unavoidable*.

TOKAY PARK WATER COMPANY

Residential Infill, as proposed in the General Plan Update, would occur within the Tokay Park Water Company by encouraging higher density infill of vacant land (for illustration see Appendix B). The proposed General Plan update will designate an additional equivalent of 4 acres for single family residential, 2 acres for multi family, and 1 acre for commercial uses over the 1993 General Plan. The Project will increase projected 2030 water demand by 4 AFA above estimated 2005 levels and by 22 AFA above 1993 General Plan normal year forecast levels.

According to staff of the Tokay Park Water Company (Liz, 2009) the service area is fairly built out, with a few empty undeveloped parcels. The Tokay Park Water Company has two wells that provide groundwater to its customers. Currently, the main water well has been shut down due to high levels of perchlorate. Tokay Park is servicing its customers with groundwater from the emergency well. Tokay Park completed upgrades

to its system and installed new pipes in 2005. These upgrades brought the service area up to code. Tokay Park is currently applying for grant monies to fund drilling of a new well, in order to help with the current perchlorate problem. Additionally, Tokay Park is working to find alternative sources of water, such as possible wholesale water from the City of Sacramento, which is located north of the Tokay Park service area. Tokay Park Water Company is located in the City of Sacramento's Place of Use.

The Tokay Park Water Company cannot supply the necessary water to support the proposed residential infill strategy. As Tokay Park is currently limited on its water supply (due to the closure of one out of two wells in the service area) and since Tokay Park does not have set funds for either the acquisition of additional water sources or for new infrastructure to deliver such water, the Tokay Park Water Company cannot support the proposed residential infill strategy. If the Tokay Park Water Company is unable to secure additional sources of water and/or upgrade their delivery systems, the proposed growth within the Tokay Park service area may need to be accommodated elsewhere to meet the increase in density proposed by the General Plan Update.

In order to support the Residential Infill strategy of the proposed General Plan Update, the Tokay Park Water Company would need to secure additional sources of water and upgrade their delivery systems. This could result in construction level environmental impacts associated with air quality, biological and/or cultural resources (depending on location), and traffic/circulation. The need for any future construction of infrastructure to provide adequate water supply for Tokay Park will be determined by the district at the time a Commercial Corridor Plan or infill project is proposed. Environmental review will occur at that time and Tokey Park will become a responsible agency commenting on the adequacy of water supply and infrastructure. Any physical impacts associated with the construction of new infrastructure to accommodate the increase in water demand are speculative as the changes in land use are unknown at this time.

For the above mentioned reasons impacts are considered *potentially significant*.

MITIGATION MEASURES:

WS-1. The following policy shall be added to the General Plan: New development that will generate additional water demand shall not be approved or building permits shall not be issued**, whichever occurs first,** if sufficient water supply is not available.

REGIONAL IMPACTS

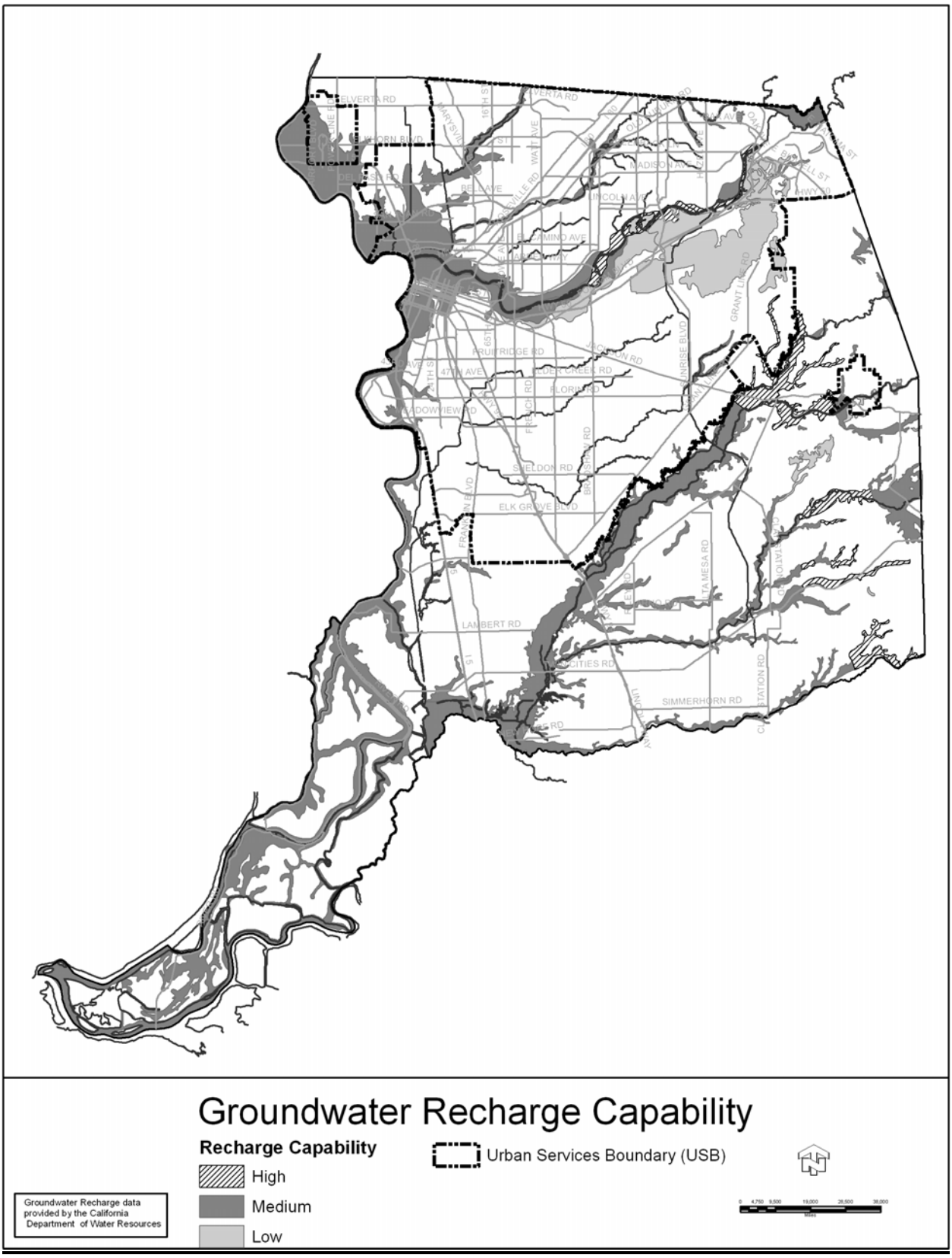
IMPACT: INTERFERENCE WITH GROUNDWATER RECHARGE

The majority of the County is considered as poor areas for groundwater recharge due to clay or hardpan soils, which hinders infiltration. Areas of high groundwater recharge are typically found along stream channels, with the larger rivers (the American River,

Sacramento River, and the Cosumnes River) containing the broadest recharge areas. There are some areas not associated with stream systems that also have good groundwater recharge capability, such as in some areas just south of the American River, where mining has been conducted. Areas of groundwater recharge capability have been mapped within Sacramento County, and given a rating of either high, medium, or low (Figure 4 of the Draft Conservation Element, and Plate WS-3 of this chapter), based on the presence of porous soils that allow surface water to infiltrate to recharge the groundwater body (refer to the background section for more detailed information regarding groundwater recharge). Development introduces impervious surfaces that prevent or hinder groundwater recharge. In areas of hardpan soils where infiltration is already very low, development has negligible effect on recharge. In areas of porous soils with good groundwater recharge potential, the placement of impervious surfaces can have measureable negative effects on that recharge ability.

The ability to replenish our groundwater supplies is very important to the availability of water, especially during dry years. Since the majority of the County has poor groundwater recharge capability due to clay or hardpan soils, it is imperative that the areas of high, medium, or even low groundwater recharge capabilities be maintained. Any substantial loss of an area identified as high, medium, or low recharge capability would be a significant impact.

Plate WS-3 Groundwater Recharge Capability Map



NORTH AREA GROUNDWATER BASIN

The North Area Groundwater Basin is the portion of the County located north of the American River, excluding Folsom Lake area.

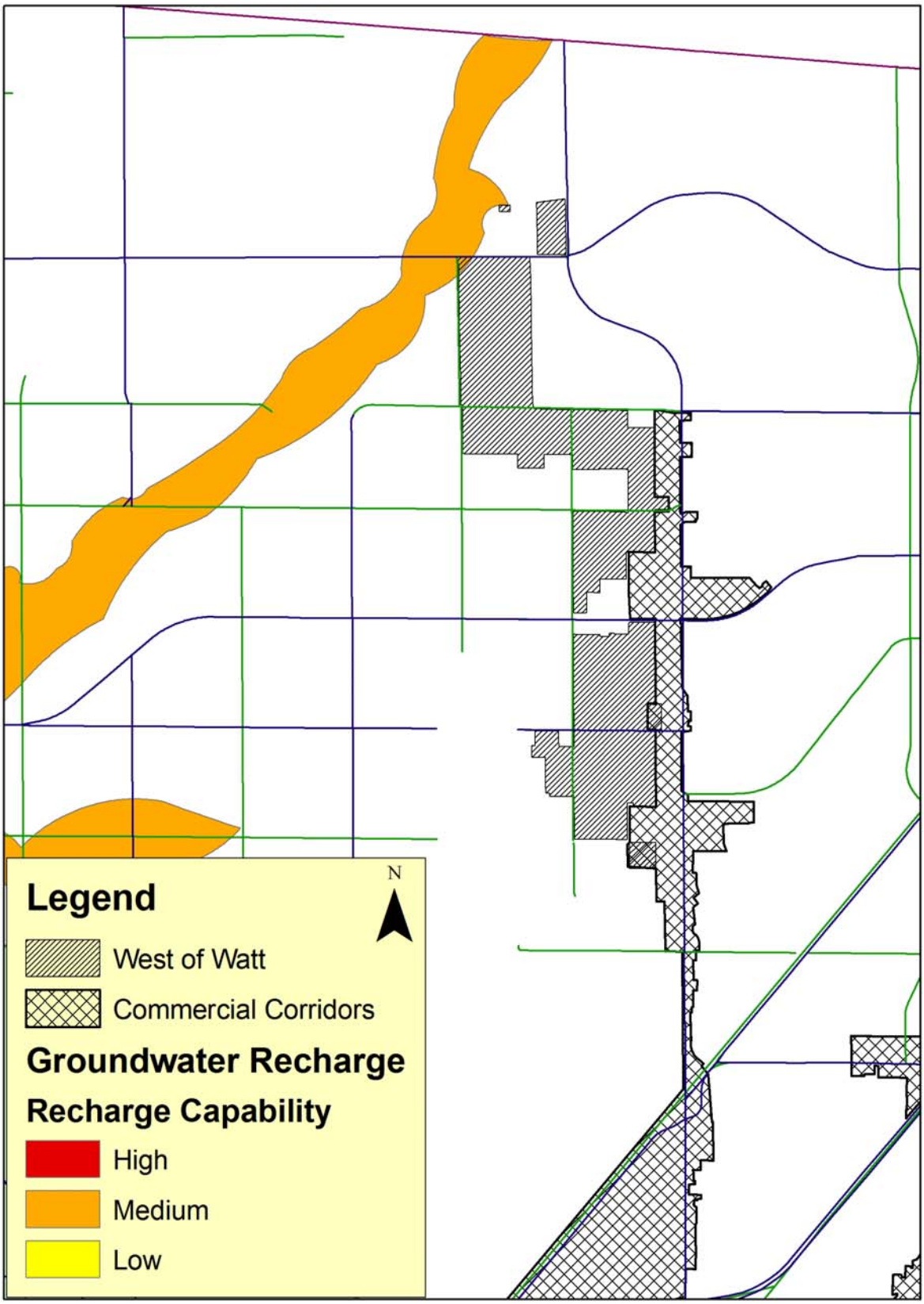
NEW GROWTH AREAS

The West of Watt New Growth Area is located within the North Area Groundwater Basin and includes a small area identified as having medium groundwater recharge capabilities (refer to Plate WS-4). As this area is quite small, and is the only proposed area that may reduce groundwater recharge capabilities within the North Area Groundwater Basin, development as a result of project approval is not likely to have a significant impact on the groundwater table and/or groundwater yields of the North Area Groundwater Basin. Impacts are *less than significant*.

COMMERCIAL CORRIDORS AND RESIDENTIAL INFILL

There are no Commercial Corridors or identified infill parcels within the North Area Groundwater Basin that are located within an area identified on the groundwater recharge capability map as having low, medium, or high recharge capability. The impact of Commercial Corridor and residential infill development within the North Area Groundwater Basin is *less than significant*.

Plate WS-4 West of Watt Groundwater Recharge Capability



CENTRAL GROUNDWATER BASIN

The Central Groundwater Basin is the portion of the County located between the American River and the Cosumnes River. The Central Groundwater Basin excludes a portion of the foothills along the eastern border of the County.

NEW GROWTH AREAS

The Jackson Highway Corridor New Growth Area, the Grant Line East New Growth Area, and Easton New Growth Area are all located in undeveloped or minimally-developed areas within the Central Groundwater Basin. All three New Growth Areas also contain recharge areas shown on the groundwater recharge capability map.

More than half of the Easton Planning Area is located over low groundwater recharge capability lands (refer to Plate WS-5). The Easton New Growth Area has been approved for development of residential, commercial, and institutional uses, so most of this low groundwater recharge area will be lost. Development within the Easton New Growth Area will result in the loss of substantial areas of recharge capability over the Central Groundwater Basin; this impact is *significant and unavoidable*.

In the southeast portion of the Jackson Highway Corridor New Growth Area, there is a small area of medium groundwater recharge capability (refer to Plate WS-6). The existing General Plan policy CO-27 and proposed policy CO-20 require that areas identified as having a moderate (medium) to very high recharge (high) capability remain as agricultural or other open space uses. Any rezone request other than agricultural or open space within one quarter mile of these groundwater recharge capability boundaries must supply hydrologic data that demonstrates that there would not be any negative impact to recharge capability before the rezone application can be considered complete. Additionally, proposed Policy CO-21 will prohibit urban land uses (which results in impervious surfaces) or nonagricultural land uses which could allow pollutants to percolate to the groundwater table in the moderate to high groundwater recharge capability areas. These policies will ensure that development within the Jackson Highway Corridor area would not result in a substantial loss of groundwater recharge capability area, and impacts are *less than significant*.

Within the Grant Line East New Growth Area, there are areas of low groundwater recharge capability in the northern portion of the area, and areas of high groundwater recharge capability associated with Deer Creek and its tributaries (refer to Plate WS-7). The low recharge capability areas to the north are likely to be fully developed with uses that will introduce a significant amount of impervious surfaces. It should be assumed that all of this recharge area will be lost. The recharge areas associated with the creeks **and intermittent drainages** are more likely to be retained, due to the General Plan policies listed above, as well as policies that protect creeks (see the Biological Resources chapter). Nonetheless development within the Grant Line East New Growth Area will result in the loss of substantial areas of low recharge capability over the Central Groundwater Basin; this impact is *significant and unavoidable*.

Plate WS-5 Easton Groundwater Recharge Capability

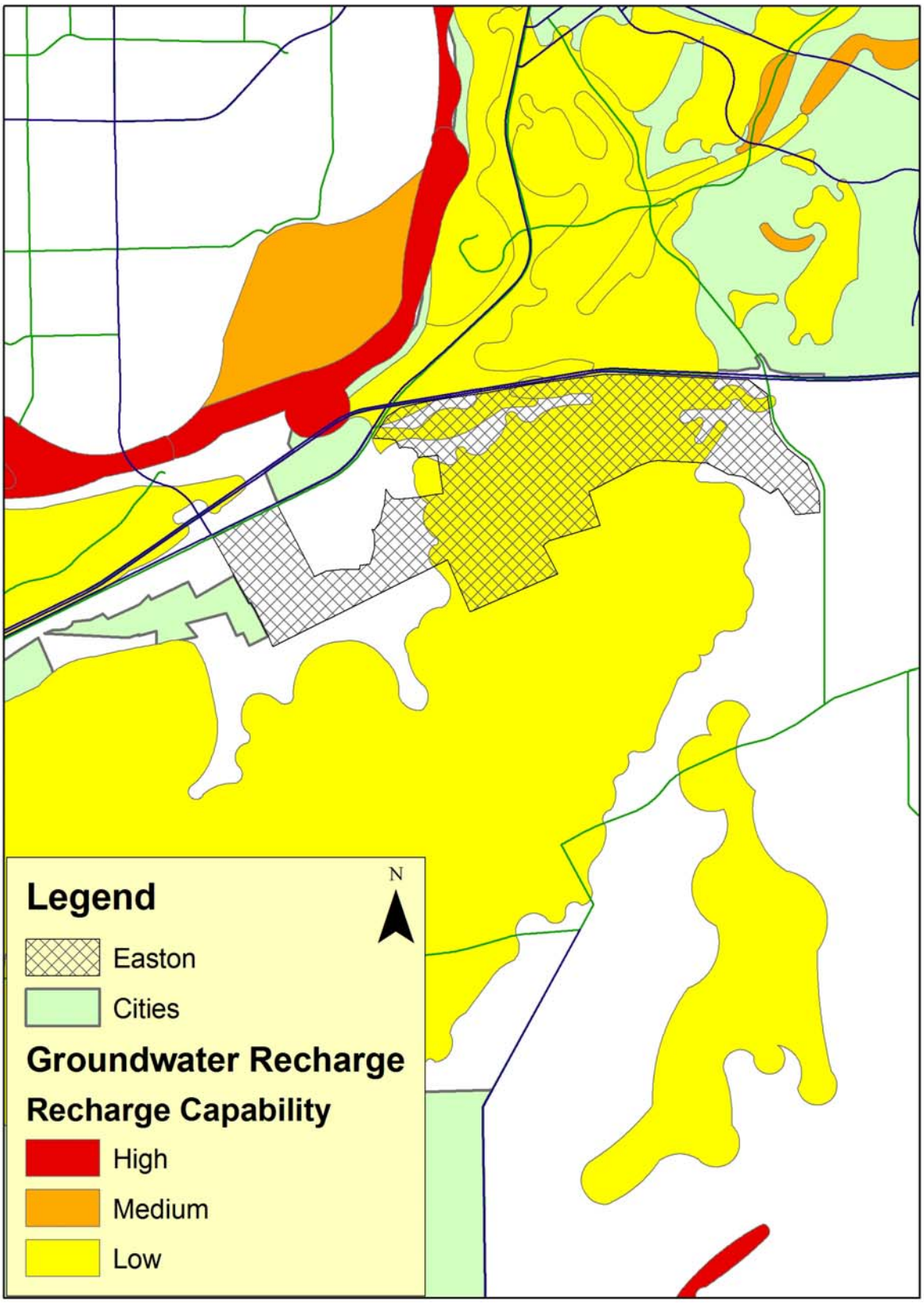


Plate WS-6 Jackson Highway Corridor Groundwater Recharge Capability

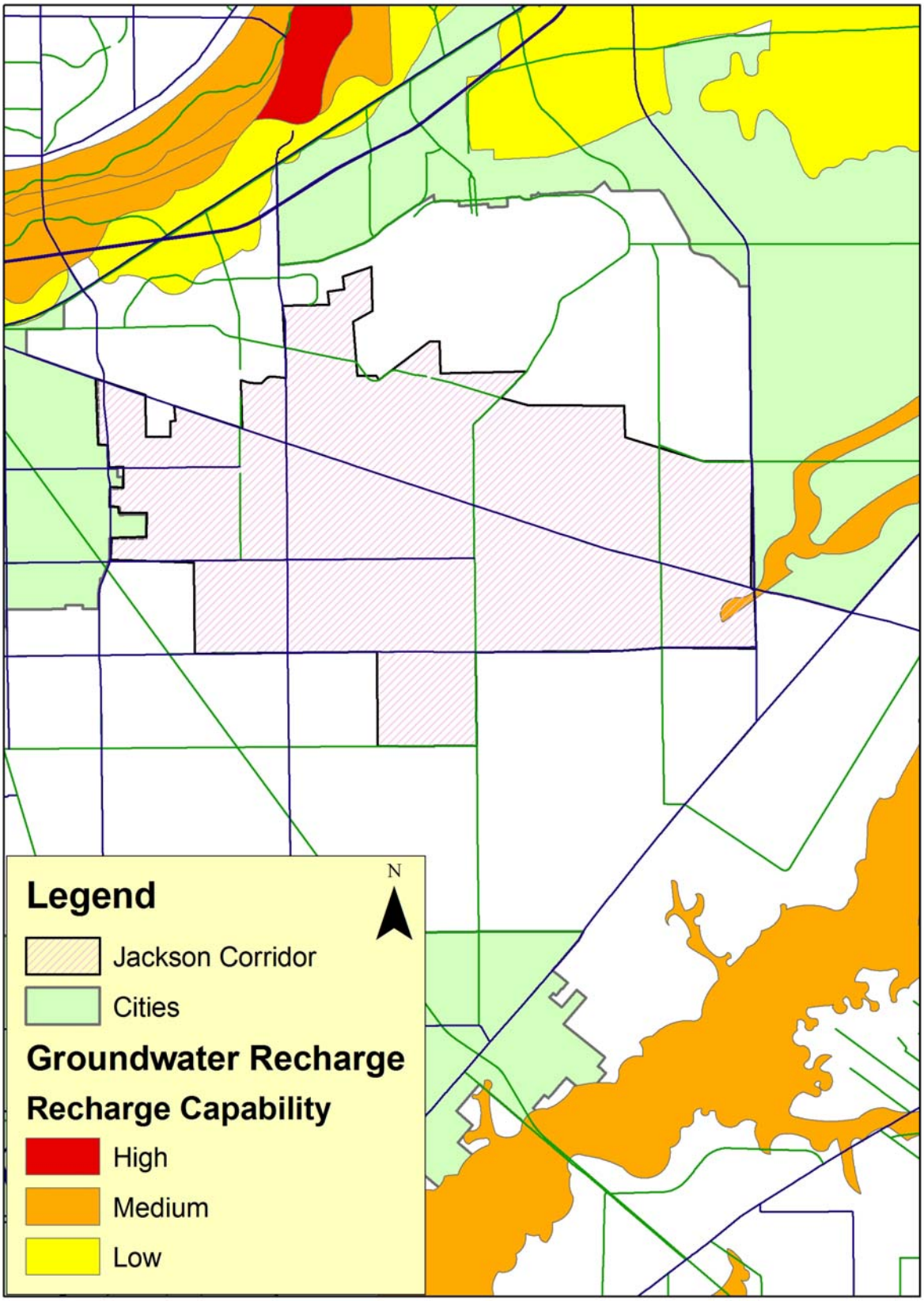
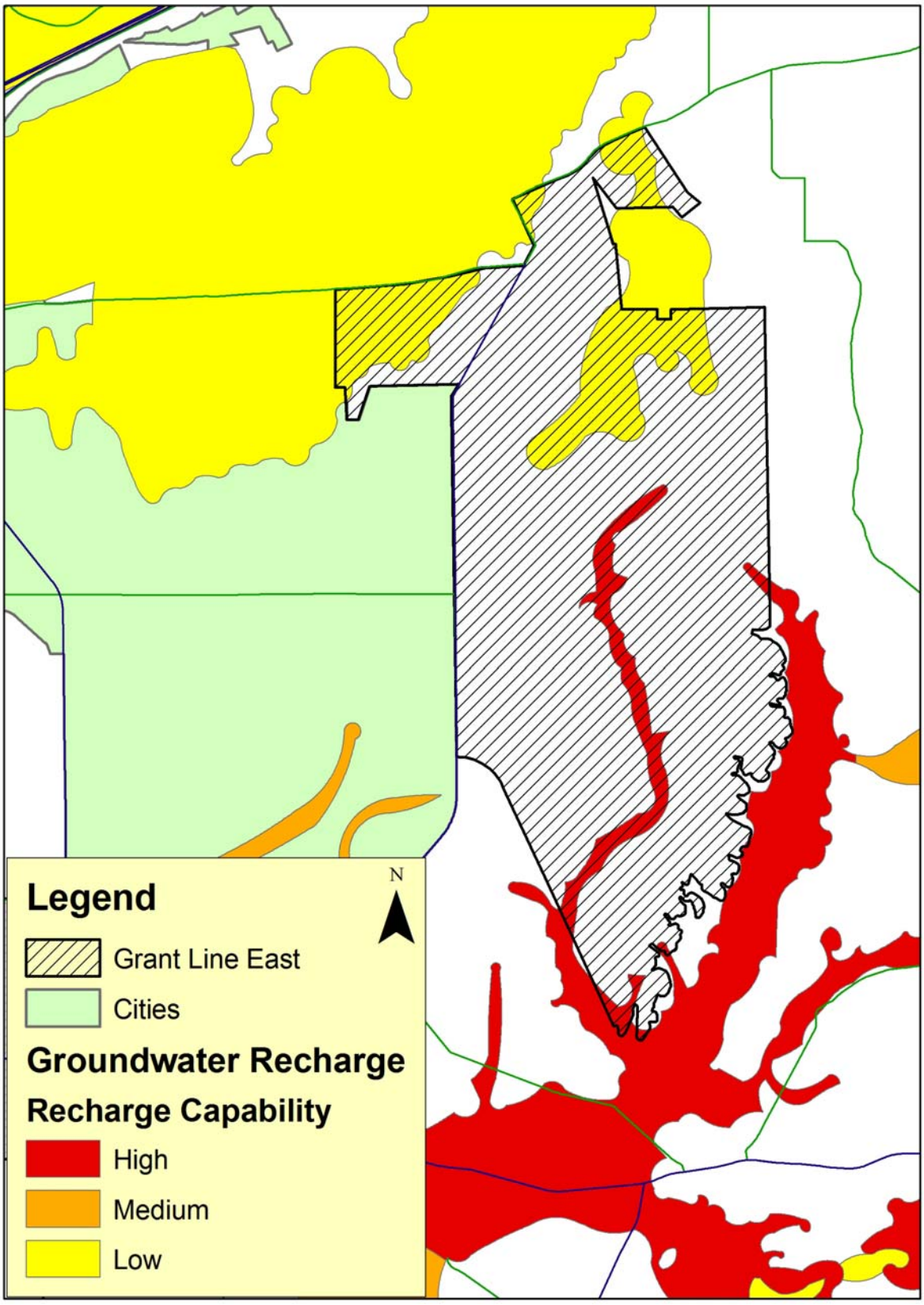


Plate WS-7 Grant Line East Groundwater Recharge Capability



COMMERCIAL CORRIDORS AND RESIDENTIAL INFILL

There are no identified infill parcels within an area designated as low, medium, or high recharge capability in the Central Groundwater Basin. There are five Commercial Corridors located over identified groundwater recharge areas within the Central Groundwater Basin. The majority of the Folsom Boulevard Commercial Corridor is located within areas identified as low groundwater recharge capability (refer to Plate WS-8). Roughly half of the Fair Oaks Boulevard West corridor is located within an area of medium groundwater recharge capability (refer to Plate WS-9). The Auburn Boulevard North and South corridors and the Fair Oaks Boulevard Central corridor have only very small portions within medium groundwater recharge capability areas (refer to Plate WS-10). Although these areas are located over medium to low groundwater recharge capability areas, the Commercial Corridors are already developed with intense urban uses. The redevelopment of these areas may actually increase groundwater recharge, because modern site design standards require more landscaped area than currently exists in many of the corridors. Therefore, the impact of redevelopment as a result of Commercial Corridor enhancements within the existing urban area is *less than significant*.

Plate WS-8 Folsom Boulevard Groundwater Recharge Capability

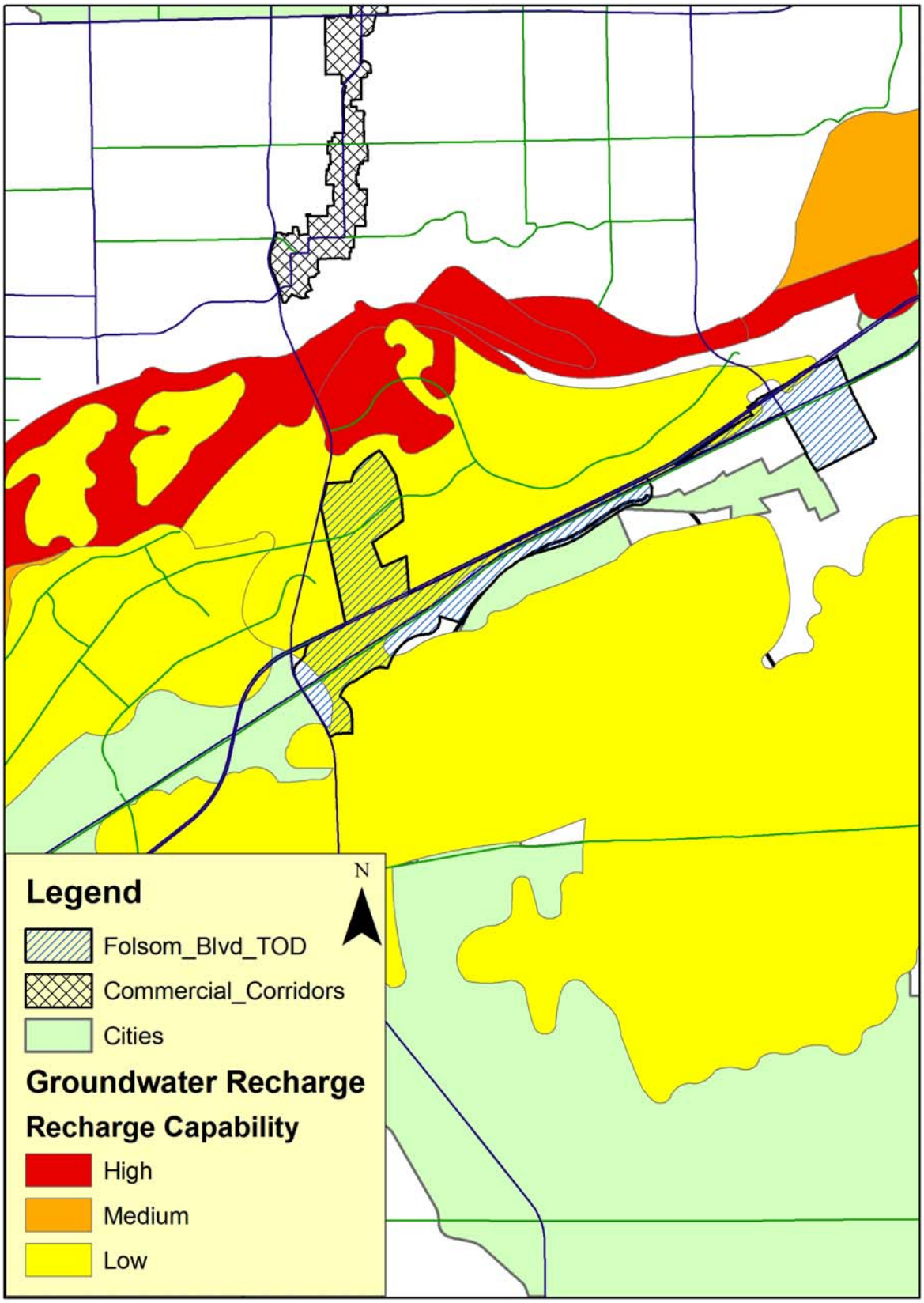


Plate WS-9 Folsom Blvd and Fair Oaks Blvd Groundwater Recharge Capability

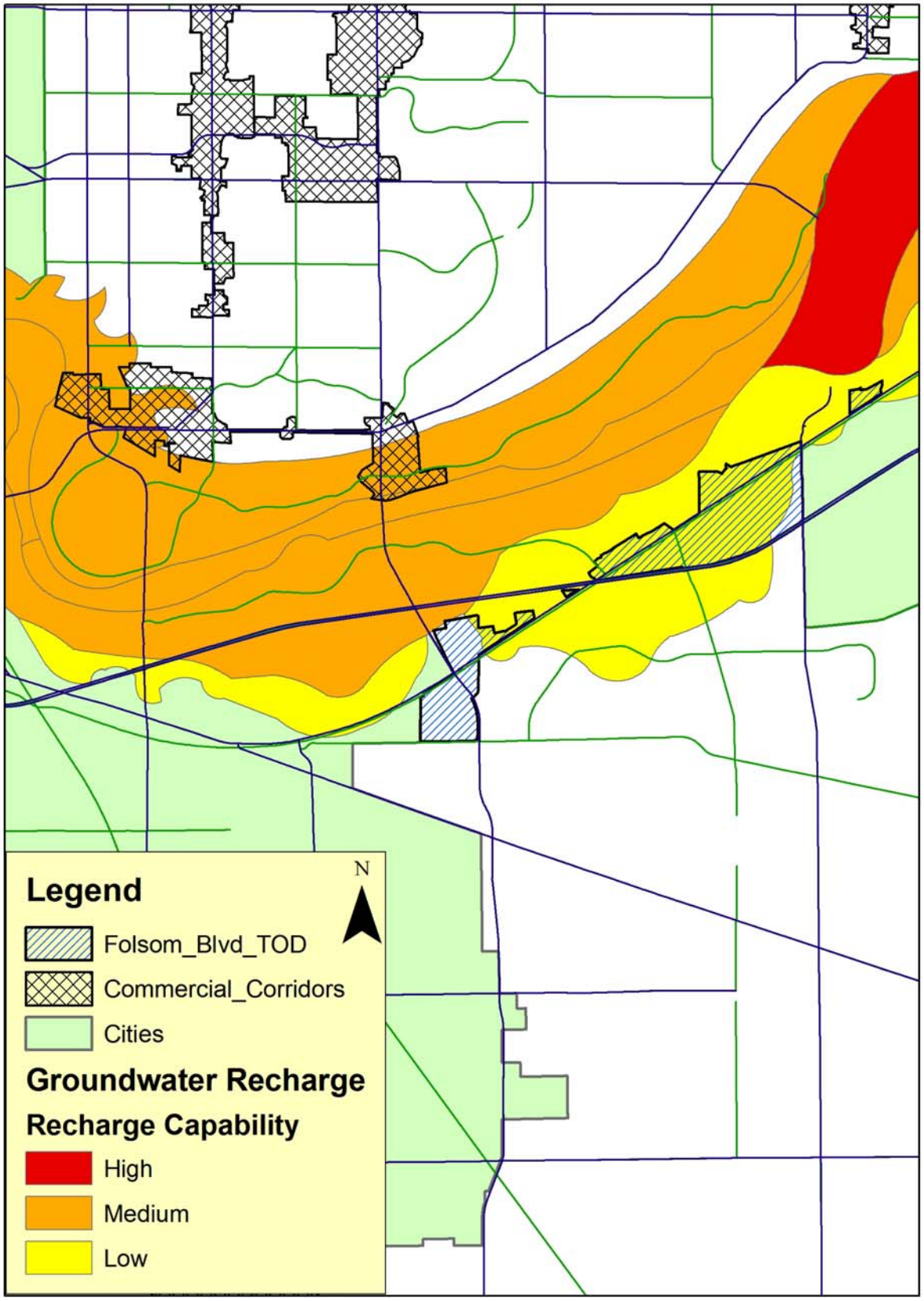
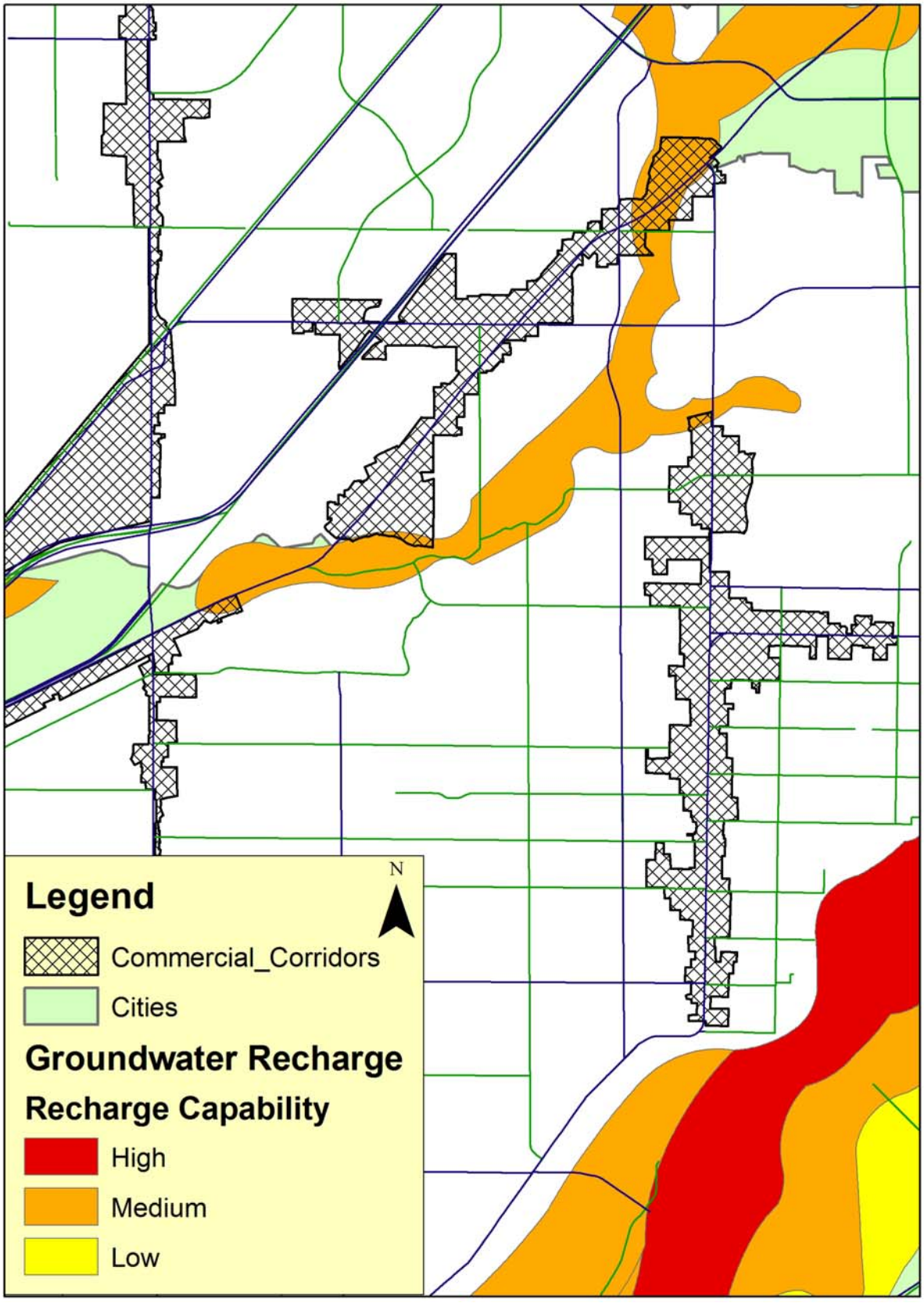


Plate WS-10 Auburn Blvd and Fair Oaks Blvd Groundwater Recharge Capability



SOUTH AREA GROUNDWATER BASIN

The South Area Groundwater Basin is the portion of the County located south of the Cosumnes River.

There are no New Growth Areas, commercial corridors, or residential infill parcels located within the South Area Groundwater Basin. Impacts of the General Plan Update on groundwater recharge capabilities within the South Area Groundwater Basin are *less than significant*.

IMPACT: CONTRIBUTE TO GROUNDWATER PUMPING IN EXCESS OF 131,000 ACRE-FEET FOR THE SACRAMENTO NORTH AREA GROUNDWATER BASIN

The Water Forum Agreement established an objective long-term average annual sustainable yield of 131,000 acre-feet of groundwater pumping within the boundary of the Sacramento Groundwater Authority (SGA) for the Sacramento North Area Groundwater Basin. Additionally, as the basin management agency, SGA has adopted an objective to "maintain groundwater elevations that provide for sustainable use of the groundwater basin." To accomplish these objectives, an active conjunctive use program is required. According to the 2006 – 2007 Basin Management Report prepared by the SGA, groundwater pumping reported by water purveyors in the SGA portion of the north basin has ranged from 78,052 to 91,096 AFA between 2003 and 2007, and averaged 87,915 AFA. This was largely due to additional importation of surface water supplies into areas of the basin that previously used groundwater exclusively. In comparison, the reported average pumping by water purveyors from 1997 through 2002 was 95,588 AFA (Swartz, 2009).

To determine existing use, a conservative estimate was calculated by taking the highest year of pumping by water purveyors over the past 5 years (91,096 AF in 2004) and added it to the high end of estimated unreported independent pumping of 20,000 AFA (by agricultural, self-supplied and domestic pumpers) resulting in an estimated 111,096 AFA (Swartz, 2009). In driest years, groundwater pumping by purveyors could increase by an estimated 15,000 AF for an estimated pumping of 126,096 AF.

To determine cumulative proposed General Plan Update buildout demand for the North Area Groundwater Basin, the singular General Plan Update water demands for California American Water Company (Antelope, Arden and Lincoln Oaks), Carmichael Water District, Rio Linda-Elverta Community Water District, Del Paso Manor Water District, Sacramento Suburban Water District, San Juan Water District family, Citrus Heights Water District, Fair Oaks Water District, Orange Vale Water Company, and Sacramento County Water Agency (Arden Park Vista), were added together for an additional estimated demand of 3,606 AFA. In keeping with the concept of conjunctive use outlined in the Water Forum Agreement and the SGA management objective, it would be expected that new growth would be supplied by a combination of surface water and groundwater sources.

Using the conservative estimates of existing pumping demand and the estimated 3,606 AFA demand resulting from the proposed General Plan growth, the total regional demand for the North Area Groundwater Basin would be as high as 114,702 AFA in most years and as high as 129,702 in the driest years. On average, the future demand resulting from this General Plan Update could be accommodated through the existing conjunctive use program. The project is not expected to contribute to groundwater pumping in excess of 131,000 AFA for the North Area Groundwater basin and the impact would be *less than significant*.

IMPACT: CONTRIBUTE TO GROUNDWATER PUMPING IN EXCESS OF 273,000 ACRE-FEET FOR THE SACRAMENTO CENTRAL GROUNDWATER BASIN

The Water Forum Agreement established a sustainable yield of 273,000 AFA of groundwater pumping within the Central Groundwater Basin which includes Sacramento County between the American River to the north and the Cosumnes River to the south. The Water Forum Agreement in 2000 estimated a groundwater pumping rate of 264,000 AFA in the Central Basin. The Zone 40 Water Supply Master Plan EIR in 2002 estimated total Central Basin groundwater pumping for all purveyors at 244,049 AFA in the 2030 buildout condition.

To determine cumulative General Plan Update buildout demands for the Central Basin the singular demands of the following purveyors located in the basin were combined: City of Folsom, Sacramento County Water (SCWA) Agency Zone 40, Golden States Water Company, Tokay Park Water Company, City of Sacramento, California American Water Company (Suburban/Rosemont and Parkway), Florin County Water District and the Fruitridge Vista Water Company. The total anticipated increase in demand between the No Project Scenario and the General Plan Update (proposed project) is 31,633 AFA but does not include future demands of new growth in Elk Grove and Rancho Cordova, as represented in their General Plans.

Even without considering any new groundwater pumping that may be needed to meet the future demands of new growth in Elk Grove and Rancho Cordova, as represented in their General Plans, it is obvious that if the additional 31,633 AFA of demand predicted by the proposed General Plan Update was supplied entirely by groundwater, that the 273,000 AFA sustainable yield would be exceeded; this would result in a significant impact.

As seen in Table WS-28, the additional General Plan Update build-out water demand for SCWA Zone 40 as compared to the No Project scenario is 26,718 AFA. This is the largest component of the total 31,633 AFA demand predicted for the Central Basin. Except for very negligible areas of infill, the SCWA Zone 40 water demand is almost entirely created by the Jackson and Grant Line East New Growth Areas and is an order of magnitude larger than the purveyor with the next largest demand (CalAm Suburban/Rosemont) at 2,342 AFA. For this reason the new water supply needs, and therefore, impacts of the Zone 40 area, dominate those of the other purveyors. In the technical report for the General Plan Update (Appendix B) prepared by SCWA staff, it is

noted that SCWA Zone 40 is allocated 40,900 AFA of groundwater which SCWA does not plan to exceed in order to support the proposed growth in the General Plan Update. At this time, SCWA is not proposing any new water supply come from groundwater. Rather, they propose additional water conservation, use of recycled water, and a robust conjunctive use plan that identifies an active groundwater banking program during wet weather and increased groundwater pumping during dry periods.

While such a plan would reduce this impact to the Central Basin to less than significant by keeping groundwater pumping below the significance threshold, there are trade-offs resulting in other primary and secondary regional impacts. The primary impacts are discussed on a singular basis in the Zone 40 water supply demand section above but would apply on a regional basis also. The secondary regional impacts of providing new water supplies are discussed below are related to increased surface water diversions and the increased, but temporary, drawdown of the Central basin's aquifer during dry years.

Impacts of the General Plan Update related to exceeding the 273,000 AFA sustainable yield of the Central Basin can be reduced to *less than significant* with implementation of a new water supply master plan to serve the new growth proposed in the Jackson and Grant Line East New Growth Areas that commits to not exceeding current groundwater allocations which support the sustainable groundwater yield.

MITIGATION MEASURES:

WS-2. The following policy shall be added to the General Plan: Prior to approving any new development in the Jackson and Grant Line East New Growth Areas, a water supply plan shall be approved that demonstrates that the sustainable yield of the Central Groundwater Basin will not be exceeded by the proposed growth.

IMPACT: SECONDARY IMPACTS OF OBTAINING ADDITIONAL WATER SUPPLY

Of all of the methods to ensure additional supply, water conservation is the only approach which will not result in negative impacts. The following sections describe the potential negative impacts of all of the strategies outlined in the discussions above. Unless otherwise specified, the following discussions on potential impacts of obtaining additional water supply are based on information from the Environmental Impact Report for the Water Forum Agreement, the Environmental Impact Report for the Zone 40 Water Supply Master Plan, and the technical report.

RECYCLED WATER

Increasing the use of recycled water will require the construction of infrastructure. While the pipelines could mainly be expected to be installed within existing road utility easements, there may also be a need to construct additional facilities at the Sacramento Regional Wastewater Treatment Plant, or an additional scalping plant at

another location. The scalping plant option would require several miles of easements for pipelines, while modifications at the existing treatment plant could require up to ten miles of easements. This could have physical effects related to construction activities, including the generation of dust and equipment pollution; the destruction of biological, cultural, and other physical resources; and impacts related to hazardous materials. Though mitigation may be required for certain impacts, it is expected that this mitigation would be sufficient to ensure that construction impacts would not be significant. Separate environmental analysis would be required for any such construction project, at which point the details of the potential impacts will be examined and disclosed. Though details are not known, experience with similar pipeline and infrastructure projects has shown that impacts can be significant – impacts of implementing this method are *potentially significant*.

Surface Water Diversions for Conjunctive Use

This category includes expanding water rights, wholesale water purchase, and water transfer (purchasing existing water rights). The primary effect of increasing water supply by these means will be to decrease water within the Sacramento River and downstream waterways. In the effects listed in Table WS-30 and Table WS-31, Water Resources included the phrase "decreased Sacramento River flows when Delta in excess balance". Water in the Sacramento River would be decreased through surface water diversions only during those times when flows from the river into the Delta are above the flows stipulated in regulatory requirements imposed for the protection of Delta habitat and wildlife (when there is "excess balance"). Although diversions would not occur if it would result in failure to meet regulatory requirements, these existing requirements are considered the minimum necessary to protect the Delta. Diverting additional water could increase the amount of time in any given year that the flows in the Sacramento River and the Delta are at or near the minimum, which would have detrimental effects on habitat and special status species.

Surface flows support valuable biological resources, including special status species and habitats directly and through recharge of shallow aquifers. Shallow aquifers are often required as a source of moisture to maintain wetland and riparian ecosystems. Decreases in the duration and amount of surface flows could reduce moisture levels in the soil along affected river channels, and could lower perched water tables, causing loss or degradation of riparian, valley oak woodland, and wetland habitats. Degradation of these habitats could likewise cause impacts to the special status species dependent on them (these species are described in the Biological Resources chapter).

Reduced surface flows may also impede the migration, breeding, juvenile success, and survival of special status fish, including fall-run Chinook salmon (*Oncorhynchus tshawytscha*), steelhead (*Oncorhynchus mykiss*), Sacramento splittail (*Pogonichthys macrolepidotus*), and Delta smelt (*Hypomesus transpacificus*). Brief descriptions of these species are located within Appendix C. Reduced surface flows can result in shortening the length of time that rivers carry sufficient volume to support migrating fish, increasing water temperatures (which affects mortality of adults, juveniles, and eggs),

and reducing the effectiveness of olfactory cues that guide migrating fish to the spawning ground.

The exact nature of these impacts cannot be determined at this time. The Sacramento County Department of Water Resources would need to update the Zone 40 Water Supply Master Plan in order to implement this strategy for obtaining additional water supplies, which would require additional environmental analysis. At that point, the details of the diversion proposals would be known, and impacts would be more firmly determined. Though details are not known, the sensitivity of the potential species and habitats that could be affected leads to the conclusion that this impact is *potentially significant*.

The table also notes that water transfers would increase American River flows. This assertion is made because if the Sacramento Suburban Water District were to sell a portion of its water, it would be conveyed to the Sacramento County Water Agency by allowing the water to continue flowing through the American River and into the Sacramento River, to be obtained by the County at the Freeport Regional Water Project facility.

Remediated Water

Remediated groundwater is ~~not typically~~ **sometimes** discharged to a river ~~or~~ **but is not typically** injected back into a clean groundwater basin, because this has the potential to cause unintended impacts (T. Berkebile). Any remediated groundwater used reduces the amount of clean groundwater or other water supplies that are needed, so the effect is ultimately beneficial.

Groundwater

Additional water sources can be derived from groundwater pumping as a stand-alone measure, and/or groundwater pumping in conjunction with groundwater recharge programs (called groundwater banking). There are several impacts that could result from one or from both of these strategies: increased groundwater contamination, fluctuations in the maximum and minimum levels of groundwater, changes in the average level of groundwater (for pumping as a stand-alone measure only), and land subsidence.

Groundwater Contamination

Analyses by the Sacramento County Water Agency have shown that degradation of groundwater quality in Sacramento County can indirectly result from lowered groundwater levels. As groundwater levels decline and a cone of depression develops, the potential in-migration of poorer-quality groundwater from the deeper aquifer is accelerated.

Average concentrations of iron, manganese, and arsenic in the Sacramento North Area have remained below the maximum contaminant levels specified in Title 22 drinking water standards. Results from the analysis mentioned above have shown that changes in concentrations of iron, magnesium, and arsenic in the Sacramento North Area are not directly related to a decline in groundwater levels. In the South Sacramento and Galt areas, groundwater level declines of over 80 feet (from predevelopment conditions) result in average manganese concentrations exceeding the secondary maximum contaminant levels. The average concentration of manganese and arsenic show a notable increase in areas of groundwater level decline in the South Sacramento Area, which is related to uprising of poor quality water from the lower Mehrten Formation mixing with upper shallow aquifer zones. Affected wells require treatment to improve the water quality to meet Title 22 standards.

Though the additional groundwater pumping associated with the Project may result in increased contamination of aquifers, Title 22 requirements will ensure that any extracted groundwater for distribution by a water purveyor is treated to the appropriate standard.

There are also existing contaminated sites within Sacramento County (see the Hazardous Materials chapter for more discussion), some of which are known to affect groundwater. Contaminants can migrate through groundwater beyond the immediate hazardous site, and pumping additional groundwater can exacerbate the migration of these contaminants.

Contaminated sites are identified and treated appropriately, based on existing regulations (refer to the Hazardous Materials chapter). This includes the use of extraction wells in pump and treat programs, where necessary. With this remediation and monitoring of clean-up efforts, the effects of contaminants to groundwater supplies are not anticipated to be significant. Nonetheless, because the details of any groundwater pumping proposals will not be known until the relevant Water Supply Master Plan updates are undertaken, it is concluded that impacts are *potentially significant*.

FLUCTUATIONS IN GROUNDWATER LEVELS

Groundwater recharge coupled with the additional pumping (groundwater banking) could cause water tables to vary up and down more widely and frequently. Artificial recharge by any means will add water to the aquifer at a rate higher than the natural rate, potentially raising groundwater tables to levels that are higher than those that presently occur. Additionally, recovering this banked water could cause groundwater levels to be drawn down to levels that are lower than naturally occur. These wider fluctuations in groundwater levels can exacerbate localized flooding where the water table is very close to the surface, and in drier years draw water tables to below the bottom of existing wells. These effects would generally be confined to the local area of recharge and pumping, so could be minimized by strategic placement of facilities. Compensation could also be made to affected individuals consistent with current well insurance programs. Although groundwater banking is intended to preserve the average groundwater elevations while allowing the minimum and maximum elevations

to alter, it is possible that future analysis of this option would conclude that some change to the average will result. This would have the same potential effects as the fluctuations in groundwater elevation.

Increases in groundwater pumping can also have adverse impacts on local waterways. Evidence suggests that current and historic groundwater pumping has adversely affected biological resources associated with the Cosumnes River and Deer Creek corridors. Field and modeling efforts conducted by the University of California, Davis indicate that extensive regional and local groundwater withdrawals over the past 50 years have substantially lowered groundwater tables and reduced the Cosumnes River and Deer Creek baseflow. Historically, the Cosumnes River received input from groundwater; however, with the development of the Elk Grove and Galt area groundwater cones of depression, the Cosumnes River now loses surface flow to the underlying groundwater basin.

As a consequence of groundwater withdrawal, the Cosumnes River now ceases to flow earlier in the year, stays dry longer into the fall, and dries over an increasingly long reach, compared to historic conditions. Because the number of days that the river is dry each year has increased over time, it requires more surface flow from the upper watershed to rewet the channel and connect the Cosumnes River to the Delta. This has potential negative implications for riparian habitat along the river, special status species that rely on the river, and for the economic viability of farming. Increased groundwater pumping to provide water for the Project, either with or without groundwater banking, has the potential to exacerbate these hydrologic effects, and their associated impacts to habitat, species, and farming practices (also refer to the section Surface Water Diversions for Conjunctive Use).

Introduction of surface water to groundwater also includes the risk of contaminating the aquifer. Surface water typically carries urban and agricultural pollutants (refer to the Hydrology and Water Quality chapter).

In addition to the impacts of groundwater extraction and recharge, there will be impacts related to the construction of groundwater pumping and recharge facilities. Using naturally occurring basins along Deer Creek or the Cosumnes River for groundwater recharge may require some modifications, such as dikes, levees, and surface water discharge facilities. These modifications could disturb riparian areas, wetlands, and special status species habitat, and may also require minor but permanent changes to physical flow patterns. The preferred method for recharging water introduced through the Freeport Regional Water Project would be to use infiltration through reclaimed surface mining pits, because this would require minimal additional land disturbance, and these potential recharge facilities are closer to the Freeport Regional Water Project. This would require some consideration of bird strike hazards associated with aircraft, because pursuing this option would create open water habitat.

Specifically for the Zone 40 analysis, the technical report indicates that up to approximately 80 acres of land area would be needed for the recharge basins. Additional groundwater production, treatment, storage, and delivery facilities would be

constructed at dispersed locations within developed areas. These would be constructed in complexes of about five acres – the number of wells within the five acre "well field" would vary depending on the amount of water needed for the area. Every 11,000 acre-feet of yearly production would require one five-acre well field. Transmission mains would also be required, which would have impacts similar to those described for recycled water distribution pipe construction. Impacts within these areas are *potentially significant*, depending on the resources present within chosen locations and the size of each affected area.

LAND SUBSIDENCE

Land subsidence could result from the lowering of groundwater levels. The compaction of water-bearing deposits caused by intensive groundwater pumping is known to have occurred in certain areas in Sacramento County. Minor land subsidence was observed between 1912 and the late 1960s for the Sacramento North, South Sacramento, and Galt areas with corresponding decreases in groundwater levels. Generally, subsidence did not exceed 0.40 feet during this period. The analysis for the Water Forum Agreement indicated that additional land subsidence could occur under the amount of pumping involved with the existing Agreement, but would be minor. Increasing the amount of pumping could also increase the amount of subsidence by an unknown amount. It is not likely that this additional amount would be substantial enough to cause infrastructure damage to private or public property, since the historical trend of land subsidence due to groundwater changes is expected to continue being minor and regional in nature. Furthermore, any land subsidence would occur gradually over several decades as groundwater levels gradually decline. Nonetheless, because the details of any groundwater pumping proposals will not be known until the relevant Water Supply Master Plan updates are undertaken, it is concluded that impacts are *potentially significant*.

MITIGATION MEASURES:

General Plan policies and existing regulations constitute all reasonable and feasible mitigation. None recommended.

NO PROJECT ALTERNATIVE

IMPACT: INCREASE IN WATER DEMAND THAT CANNOT BE MET BY WATER PURVEYORS' EXISTING OR FUTURE PROJECTED SUPPLIES OR REQUIRE NEW WATER TREATMENT FACILITIES AND PIPELINES THAT COULD CAUSE CONSTRUCTION LEVEL ENVIRONMENTAL EFFECTS

The No Project Alternative impact analyses for the City of Sacramento, Sacramento Suburban Water District, Carmichael Water District, City of Folsom, Fruitridge Vista

Water Company, Golden States Water Company, Tokay Park Water Company, California American Water Company, Del Paso Manor, Rio Linda Water District, Citrus Heights Water District, Fair Oaks Water District, Orange Vale Water District, San Juan Water District, Sacramento County Water Agency Arden Park Vista, and Florin County Water District are essentially the same as those discussed for the Proposed General Plan in the impacts and analysis section of this chapter. The project impact section determined that the City of Sacramento, Sacramento Suburban Water District, Carmichael Water District, City of Folsom, Del Paso Manor, Citrus Heights Water District, Fair Oaks Water District, Orange Vale Water District, San Juan Water District, and Rio Linda Water District have sufficient water supply and infrastructure to support the additional demand, though construction impacts related to infrastructure to supply new development may occur. The project impact section determined that Fruitridge Vista Water Company, Golden States Water Company, Sacramento County Water Agency Arden Park Vista, California American Water Company, Florin County Water District, and Tokay Park Water Company may not have sufficient water supply, infrastructure, or both to serve the projected growth (refer to "Impacts and Analysis" discussion). Impacts are *potentially significant*.

For Zone 40, the No Project Alternative is included throughout the Project discussions above, because the water districts have planned for water needs based on the existing General Plan – which is the same as the No Project scenario, except that the No Project includes Cordova Hills. The projected No Project demand is 37,667 AFA, and combined with the cities the total Zone 40 demand is 116,884 AFA. This is well within the Zone 40 yield of 130,383 AFA. No additional supplies would be needed to serve the No Project Alternative, and impacts would be *less than significant.*

The No Project Alternative includes Easton and Cordova Hills, which are both located in mapped groundwater recharge areas. As discussed in the section on Project impacts, groundwater recharge impacts of the No Project Alternative are *significant and unavoidable*.

ALTERNATIVE 1: REMOVE GRANT LINE EAST

IMPACT: INCREASE IN WATER DEMAND THAT CANNOT BE MET BY WATER PURVEYORS' EXISTING OR FUTURE PROJECTED SUPPLIES OR REQUIRE NEW WATER TREATMENT FACILITIES AND PIPELINES THAT COULD CAUSE CONSTRUCTION LEVEL ENVIRONMENTAL EFFECTS

The Remove Grant Line East Alternative impact analyses for the City of Sacramento, Sacramento Suburban Water District, Carmichael Water District, City of Folsom, Fruitridge Vista Water Company, Golden States Water Company, Tokay Park Water Company, California American Water Company, Del Paso Manor, Rio Linda Water District, Citrus Heights Water District, Fair Oaks Water District, Orange Vale Water District, San Juan Water District, Sacramento County Water Agency Arden Park Vista,

and Florin County Water District are essentially the same as those discussed for the Proposed General Plan in the impacts and analysis section of this chapter. The project impact section determined that the City of Sacramento, Sacramento Suburban Water District, Carmichael Water District, City of Folsom, Del Paso Manor, Citrus Heights Water District, Fair Oaks Water District, Orange Vale Water District, San Juan Water District, and Rio Linda Water District have sufficient water supply and infrastructure to support the additional demand, though construction impacts related to infrastructure to supply the new development may occur. The project impact section determined that Fruitridge Vista Water Company, Golden States Water Company, Sacramento County Water Agency Arden Park Vista, California American Water Company, Florin County Water District, and Tokay Park Water Company may not have sufficient water supply, infrastructure, or both to serve the projected growth (refer to "Impacts and Analysis" discussion). Impacts are *potentially significant*.

The technical report for Zone 40 includes a preferred water supply scenario specific to each of the Alternatives for the Project; the table for the Remove Grant Line East Alternative is provided below (Table WS-32). The technical report indicates that the total additional water demand resulting from Alternative 1 will be 18,992 ac AFA, which is 14,763 acre-feet less than the Project demand. All of the Zone 40 discussion for the Project and for the potential secondary impacts related to obtaining additional supply is applicable to the Alternative, except that the Alternative results in less water demand. This reduction in water demand would also reduce the impacts that would result from obtaining the additional water supply. The impact of this Alternative, like the Project, is *significant and unavoidable*.

The Remove Grant Line East Alternative includes Easton, and therefore will still involve *significant and unavoidable* impacts to groundwater recharge. Though still significant Easton is an approved development that would occur even without approval of this Alternative, so this Alternative does reduce impacts as much as possible.

MITIGATION MEASURES:

See WS-1.

Table WS-32 Summary of Preferred Zone 40 Water Supply Actions to Meet Alternative 1 Cumulative Demand [1] of 18,992 AFA

Action Area	Expected Yield (AFA)	Reliability/ Availability	Cost	Potential Effects
Enhanced Conservation	6,000	High	Moderate	• Decreased demand • Increased enforcement needs
Recycled Water	2,000	High	Very High	• Additional land disturbance within and outside of developed areas
Robust Conjunctive Use	10,000 overall [2]	High overall	High overall	• Additional land disturbance within and outside of developed areas • Wider annual variation in groundwater levels while long-term average levels remain unchanged • Source-specific effects listed below
Expanded Water Right	10,000	Moderate	Low	• Decreased Sacramento River flows when Delta in excess balance
Remediated Water	2,500	Moderate	High	• Increased American River flows in all years • Depletion of Central basin yields
Production of banked recharge water	10,000 overall [2]	High	High	• Land disturbance within newly developed areas
Groundwater	1,000 overall	High overall	Very low	• Source-specific effects listed below
Agricultural land conversion	1,000	High	Very Low	• Land converted from ag/open space to developed • No increase in groundwater use

1. Combined with effect of climate change on additional sources
2. Total potential of all sources combined; production is that required to recover recharge water and does not add to the overall groundwater potential yield.

ALTERNATIVE 2: FOCUSED GROWTH

IMPACT: INCREASE IN WATER DEMAND THAT CANNOT BE MET BY WATER PURVEYORS' EXISTING OR FUTURE PROJECTED SUPPLIES OR REQUIRE NEW WATER TREATMENT FACILITIES AND PIPELINES THAT COULD CAUSE CONSTRUCTION LEVEL ENVIRONMENTAL EFFECTS

The Focused Growth Alternative impact analyses for the City of Sacramento, Sacramento Suburban Water District, Carmichael Water District, City of Folsom, Fruitridge Vista Water Company, Golden States Water Company, Tokay Park Water Company, Del Paso Manor, Rio Linda Water District, Citrus Heights Water District, Fair Oaks Water District, Orange Vale Water District, San Juan Water District, Sacramento County Water Agency Arden Park Vista, and Florin County Water District are essentially the same as those discussed for the Proposed General Plan in the impacts and analysis section of this chapter. The project impact section determined that the City of Sacramento, Sacramento Suburban Water District, Carmichael Water District, City of Folsom, Del Paso Manor, Citrus Heights Water District, Fair Oaks Water District, Orange Vale Water District, San Juan Water District, and Rio Linda Water District have sufficient water supply and infrastructure to support the additional demand, though construction impacts related to infrastructure to supply the new development may occur. The project impact section determined that Fruitridge Vista Water Company, Golden States Water Company, Sacramento County Water Agency Arden Park Vista, Florin County Water District, and Tokay Park Water Company may not have sufficient water supply, infrastructure, or both to serve the projected growth (refer to "Impacts and Analysis" discussion). Impacts are *potentially significant*.

The total additional water demand to the CalAm service area for the Focused Growth Alternative is 5,137 AFA, which is 1,053 AFA more than the Project demand. All of this increase is located within the Suburban/Rosemont service area and attributed to densification due to the reduction in the footprint of the Jackson New Growth Area. Though the Focused Growth Alternative results in an increase in demand, the impact analyses for CalAm are essentially the same as those discussed for the proposed General Plan Update in the impacts and analysis section of this chapter. The impact of this Alternative is *significant and unavoidable.*

The preferred Zone 40 water supply scenario for the Focused Growth Alternative is provided below (Table WS-33). The technical report indicates that the total additional water demand resulting from Alternative 2 will be 17,015 AFA, which is 16,740 acre-feet less than the Project demand. All of the Zone 40 discussion for the Project and for the potential secondary impacts related to obtaining additional supply is applicable to the Alternative, except that the Alternative results in less water demand. This reduction in water demand would also reduce the impacts that would result from obtaining the

additional water supply. The impact of this Alternative, like the Project, is *significant and unavoidable*.

The Focused Growth Alternative includes Easton, and therefore will still involve *significant and unavoidable* impacts to groundwater recharge. Though still significant Easton is an approved development that would occur even without approval of this Alternative, so this Alternative does reduce impacts as much as possible.

MITIGATION MEASURES:

See WS-1.

Table WS-33 Summary of Preferred Zone 40 Water Supply Actions to Meet Alternative 2 Cumulative Demand [1] of 17,015 AFA

Action Area	Expected Yield (AFA)	Reliability/ Availability	Cost	Potential Effects
Enhanced Conservation	5,000	High	Moderate	• Decreased demand • Increased enforcement needs
Recycled Water	2,000	High	Very High	• Additional land disturbance within and outside of developed areas
Robust Conjunctive Use	9,000 overall [2]	High overall	High overall	• Additional land disturbance within and outside of developed areas • Wider annual variation in groundwater levels while long-term average levels remain unchanged • Source-specific effects listed below
Expanded Water Right	10,000	Moderate	Low	• Decreased Sacramento River flows when Delta in excess balance
Remediated Water	1,300	Moderate	High	• Increased American River flows in all years • Depletion of Central basin yields
Production of banked recharge water	9,000 overall [2]	High	High	• Land disturbance within newly developed areas
Groundwater	1,000 overall	High overall	Very low	• Source-specific effects listed below
Agricultural land conversion	1,000	High	Very Low	• Land converted from ag/open space to developed • No increase in groundwater use

1. Combined with effect of climate change on additional sources
2. Total potential of all sources combined; production is that required to recover recharge water and does not add to the overall groundwater potential yield.

ALTERNATIVE 3: MIXED USE

IMPACT: INCREASE IN WATER DEMAND THAT CANNOT BE MET BY WATER PURVEYORS' EXISTING OR FUTURE PROJECTED SUPPLIES OR REQUIRE NEW WATER TREATMENT FACILITIES AND PIPELINES THAT COULD CAUSE CONSTRUCTION LEVEL ENVIRONMENTAL EFFECTS

The Mixed Use Alternative impact analyses for the City of Sacramento and the Tokay Park Water Company are essentially the same as those discussed for the proposed General Plan Update in the impacts and analysis section of this chapter. The project impact section determined that the City of Sacramento has sufficient water supply and infrastructure to support the additional demand, though construction impacts related to infrastructure to supply the new development may occur. The project impact section for the Tokay Park Water Company determined that the company may not have sufficient water supply, infrastructure, or both to serve the projected growth (refer to "Impacts and Analysis" discussion). Impacts are *potentially significant*.

The impacts of the Mixed Use Alternative for the remaining water purveyors are discussed below.

FLORIN COUNTY WATER DISTRICT

The Mixed Use Alternative would increase the water demand to the Florin County Water District service area by 431 acre-feet during a normal year. This represents 72 acre-feet per year more than would occur under the proposed project. The mixed use alternative results in a greater demand than the proposed project, however; the impact analyses for the Mixed Use Alternative are essentially the same as those discussed for the proposed General Plan Update in the impacts and analysis section of this chapter.

The project impact section determined that the proposed General Plan Update would result in potentially significant impacts (refer to "Impacts and Analysis" discussion). Though this alternative results in a greater demand than the proposed General Plan Update overall, impacts remain *potentially significant*.

FRUITRIDGE VISTA WATER COMPANY

The Mixed Use Alternative would increase the water demand to the Fruitridge Vista Water Company service area by 509 acre-feet during a normal year. This represents 104 AFA more than would occur under the proposed project. The mixed use alternative results in a greater demand than the proposed project, however; the impact analyses for the Mixed Use Alternative are essentially the same as those discussed for the proposed General Plan Update in the impacts and analysis section of this chapter.

The project impact section determined that the proposed General Plan Update would result in potentially significant impacts (refer to "Impacts and Analysis" discussion). Though this alternative results in a greater demand than the proposed General Plan Update overall, impacts remain *potentially significant*.

California American Water Company

The total water demand for the Mixed Use Alternative is 2,799 AFA, which is 1,289 AFA less than the Project demand. Although overall the Mixed Use Alternative results in a reduction in water demand compared to the Project, within the Antelope, Arden, Lincoln Oaks, and Parkway service areas this Alternative results in an increase in demand. Within the Suburban/Rosemont service area this Alternative results in a decrease in demand. These results are shown in Table WS-34.

Table WS-34: CalAm Mixed Use Alternative Demand Change

CalAm Service Area	Project Demand Increase	Mixed Use Demand Increase
Antelope	159	429
Arden	35	70
Lincoln Oaks	75	178
Parkway	1473	1833
Suburban/Rosemont	2342	289

The impact analyses for the Arden, Lincoln Oaks, and Parkway service areas are essentially the same as those discussed for the proposed General Plan Update in the impacts and analysis section of this chapter. The Antelope service area will need to acquire additional water by increasing production from the existing wells or drilling a new well. Given the uncertainties in obtaining supplies the impact of this Alternative to the Antelope service area, like the Project, is potentially significant. Impacts to the Suburban/Rosemont service area are reduced under this Alternative because the additional supplies are available from increased production from existing wells or City of Sacramento water. The infrastructure improvements discussed in the Project analysis will not be necessary. Given that construction level impacts may still occur, impacts of this Alternative to the Suburban/Rosemont service area are potentially significant.

Given that impacts to the Parkway service area remain significant and unavoidable, for the greater CalAm service area the impact of this Alternative, like the Project, is *significant and unavoidable.*

Golden States Water Company

The Mixed Use Alternative would increase the water demand to the Golden States Water Company service area by 185 acre-feet during a normal year. This represents 31 AFA more than would occur under the proposed project. The mixed use alternative

results in a greater demand than the proposed project, however; the impact analyses for the Mixed Use Alternative are essentially the same as those discussed for the proposed General Plan Update in the impacts and analysis section of this chapter.

The project impact section determined that the proposed General Plan Update would result in potentially significant impacts (refer to “Impacts and Analysis” discussion). Though this alternative results in a greater demand than the proposed General Plan Update, overall impacts remain *potentially significant*.

Del Paso Manor Water District

The Mixed Use Alternative would increase the water demand to the Del Paso Manor Water District service area by 158 acre-feet during a normal year. This represents 117 AFA more than would occur under the proposed project. The mixed use alternative results in a greater demand than the proposed project, however; the impact analyses for the Mixed Use Alternative are essentially the same as those discussed for the proposed General Plan Update in the impacts and analysis section of this chapter.

The project impact section determined that the proposed General Plan Update would result in potentially significant impacts (refer to “Impacts and Analysis” discussion). Though this alternative results in a greater demand than the proposed General Plan Update, overall impacts remain *potentially significant*.

City of Folsom

The Mixed Use Alternative would increase the water demand to the City of Folsom service area by 481 acre-feet during a normal year. This represents 442 AFA more than would occur under the proposed project. The mixed use alternative results in a greater demand than the proposed project, however; the impact analyses for the Mixed Use Alternative are essentially the same as those discussed for the proposed General Plan Update in the impacts and analysis section of this chapter.

The project impact section determined that the proposed General Plan Update would result in potentially significant impacts (refer to “Impacts and Analysis” discussion). Though this alternative results in a greater demand than the proposed General Plan Update, overall impacts remain *potentially significant*.

Carmichael Water District

The Mixed Use Alternative would increase the water demand to the Carmichael Water District service area by 1,494 acre-feet during a normal year. This represents 1,103 AFA more than would occur under the proposed project. The mixed use alternative results in a greater demand than the proposed project, however; the impact analyses for the Mixed Use Alternative are essentially the same as those discussed for the proposed General Plan Update in the impacts and analysis section of this chapter.

The project impact section determined that the proposed General Plan Update would result in potentially significant impacts (refer to “Impacts and Analysis” discussion). Though this alternative results in a greater demand than the proposed General Plan Update, overall impacts remain *potentially significant*.

Citrus Heights Water District

The Mixed Use Alternative would increase the water demand to the Citrus Heights Water District service area by 291 acre-feet during a normal year. This represents 263 AFA more than would occur under the proposed project. The mixed use alternative results in a greater demand than the proposed project, however; the impact analyses for the Mixed Use Alternative are essentially the same as those discussed for the proposed General Plan Update in the impacts and analysis section of this chapter.

The project impact section determined that the proposed General Plan Update would result in potentially significant impacts (refer to “Impacts and Analysis” discussion). Though this alternative results in a greater demand than the proposed General Plan Update, overall impacts remain *potentially significant*.

Fair Oaks Water District

The Mixed Use Alternative would increase the water demand to the Fair Oaks Water District service area by 1,365 acre-feet during a normal year. This represents 1,249 AFA more than would occur under the proposed project. The mixed use alternative results in a greater demand than the proposed project, however; the impact analyses for the Mixed Use Alternative are essentially the same as those discussed for the proposed General Plan Update in the impacts and analysis section of this chapter.

The project impact section determined that the proposed General Plan Update would result in potentially significant impacts (refer to “Impacts and Analysis” discussion). Though this alternative results in a greater demand than the proposed General Plan Update, overall impacts remain *potentially significant*.

Orange Vale Water District

The Mixed Use Alternative would increase the water demand to the Orange Vale Water District service area by 722 acre-feet during a normal year. This represents 584 AFA more than would occur under the proposed project. The mixed use alternative results in a greater demand than the proposed project, however; the impact analyses for the Mixed Use Alternative are essentially the same as those discussed for the proposed General Plan Update in the impacts and analysis section of this chapter.

The project impact section determined that the proposed General Plan Update would result in potentially significant impacts (refer to “Impacts and Analysis” discussion). Though this alternative results in a greater demand than the proposed General Plan Update, overall impacts remain *potentially significant*.

SAN JUAN WATER DISTRICT

The Mixed Use Alternative would increase the water demand to the San Juan Water District service area by 109 acre-feet during a normal year. This represents 87 AFA more than would occur under the proposed project. The mixed use alternative results in a greater demand than the proposed project, however; the impact analyses for the Mixed Use Alternative are essentially the same as those discussed for the proposed General Plan Update in the impacts and analysis section of this chapter.

The project impact section determined that the proposed General Plan Update would result in potentially significant impacts (refer to "Impacts and Analysis" discussion). Though this alternative results in a greater demand than the proposed General Plan Update, overall impacts remain *potentially significant*.

RIO LINDA WATER DISTRICT

The Mixed Use Alternative would increase the water demand to the Rio Linda Water District service area by 631 acre-feet during a normal year. This represents 505 AFA more than would occur under the proposed project. The mixed use alternative results in a greater demand than the proposed project, however; the impact analyses for the Mixed Use Alternative are essentially the same as those discussed for the proposed General Plan Update in the impacts and analysis section of this chapter.

The project impact section determined that the proposed General Plan Update would result in potentially significant impacts (refer to "Impacts and Analysis" discussion). Though this alternative results in a greater demand than the proposed General Plan Update, overall impacts remain *potentially significant*.

SACRAMENTO SUBURBAN WATER DISTRICT

The Mixed Use Alternative would increase the water demand to the Sacramento Suburban Water District service area by 4,719 acre-feet during a normal year. This represents 2,285 AFA more than would occur under the proposed project. The mixed use alternative results in a greater demand than the proposed project, however; the impact analyses for the Mixed Use Alternative are essentially the same as those discussed for the proposed General Plan Update in the impacts and analysis section of this chapter.

The project impact section determined that the proposed General Plan Update would result in potentially significant impacts (refer to "Impacts and Analysis" discussion). Though this alternative results in a greater demand than the proposed General Plan Update, overall impacts remain *potentially significant*.

SACRAMENTO COUNTY WATER AGENCY (ZONE 40)

The preferred water supply scenario for the Mixed Use Alternative is provided below (Table WS-35). The technical report indicates that the total additional water demand

resulting from Alternative 3 will be 3,273 AFA, which is 16,740 acre-feet less than the Project demand. All of the Zone 40 discussion for the Project and for the potential impacts related to obtaining additional supply is applicable to the Alternative, except that the Alternative results in less water demand. This reduction in water demand would also reduce the impacts that would result from obtaining the additional water supply. For this Alternative, the increase in water need is so low (and is partly related to the assumption that with climate change future supplies will be restricted) that the most severe secondary effects of obtaining additional water supplies will be eliminated altogether. The only methods needed to obtain water would be conservation, recycled water usage, and usage of water abandoned by farming. With the same mitigation as was applied to the Project, impacts are *less than significant*.

Table WS-35 Summary of Preferred Zone 40 Water Supply Actions to Meet Alternative 3 Cumulative Demand [1] of 3,273 AFA

Action Area	Expected Yield (AFA)	Reliability/ Availability	Cost	Potential Effects
Enhanced Conservation	1,000	High	Moderate	• Decreased demand • Increased enforcement needs
Recycled Water	2,000	High	Very High	• Additional land disturbance within and outside of developed areas
Groundwater	500 overall	High overall	Very low	• Source-specific effects listed below
Agricultural land conversion	500	High	Very Low	• Land converted from ag/open space to developed • No increase in groundwater use

1. Combined with effect of climate change on additional sources
2. Total potential of all sources combined; production is that required to recover recharge water and does not add to the overall groundwater potential yield.

Sacramento County Water Agency Arden Park Vista

The Mixed Use Alternative would increase the water demand to the Sacramento County Water Agency Arden Park Vista service area by 318 acre-feet during a normal year. This represents 273 AFA more than would occur under the proposed project. The mixed use alternative results in a greater demand than the proposed project, however; the impact analyses for the Mixed Use Alternative are essentially the same as those discussed for the proposed General Plan Update in the impacts and analysis section of this chapter.

The project impact section determined that the proposed General Plan Update would result in potentially significant impacts (refer to "Impacts and Analysis" discussion). Though this alternative results in a greater demand than the proposed General Plan Update, overall impacts remain *potentially significant*.

Groundwater Recharge

The Mixed Use Alternative includes Easton, and therefore will still involve *significant and unavoidable* impacts to groundwater recharge. Though still significant Easton is an approved development that would occur even without approval of this Alternative, so this Alternative does reduce impacts as much as possible.

Mitigation Measures:

See WS-1.

7 HYDROLOGY AND WATER QUALITY

INTRODUCTION

This chapter addresses the effects of development consistent with the Proposed General Plan Update relative to the hydrologic characteristics of Sacramento County. The Conservation Element of the Proposed General Plan contains a section entitled, "*Water Supply, Quality, and Conservation*" and the Safety Element contains a section entitled "*Flooding*". The policies of these sections will be the primary focus of the analysis contained in this EIR chapter. Although the General Plan encompasses water supply and water quality in the same section, this EIR contains a separate chapter concentrating on water supply; albeit, there is expected to be a degree of overlap in the analysis of water supply with the analysis of water quality and drainage.

There are many design standards, policies, and regulations that protect our water from pollution and our communities from flooding. An overview of pertinent regulations is important to include in this analysis; however, to prepare a concise report, the following documents are hereby incorporated by reference, and are available for review at 827 7th Street, Room 220, Sacramento:

- Stormwater Quality Design Manual for the Sacramento and South Placer Regions, May 2007.
- Sacramento County Improvement Standards
- Volume 2 Hydrology Standards
- Sacramento County Floodplain Management Ordinance
- Sacramento County Code 16.44 (Land Grading and Erosion Control)

SETTING

REGIONAL SETTING

The Sacramento River Basin encompasses about 26,500 square miles and is bounded by the Sierra Nevada Mountains to the east, the Coast Ranges to the west, the Cascade Range and Trinity Mountains to the north and the Delta Central Sierra area to the south. Within the Sacramento River Basin are sub-basins or smaller watersheds that drain to the tributaries of the Sacramento River. The American River watershed is a sub-basin of the Sacramento River watershed. The American River originates in the

Tahoe and Eldorado National Forests and flows into the Folsom Lake reservoir, which holds approximately 1 million acre feet of water.

The Cosumnes and the Mokelumne Rivers are not tributaries of the Sacramento River; they flow into the San Joaquin River and are typically considered part of a separate watershed. The majority of Sacramento County is within the Sacramento River basin; however, southwestern Sacramento County contains Delta waterways, which interconnect the Sacramento, San Joaquin and Mokelumne Rivers. Plate HY-1 shows the location of these rivers, and of other rivers and creeks in the County.

The Delta contains vital water resources and a complex hydrologic system of islands and channels. Historically, the Delta was a vast tidal marsh; it was transformed to a series of channels and leveed islands in the first half of the 20th century. Sacramento is one of six counties that comprise the Delta region (Plate HY-2).

The waterways of Sacramento County provide recreation and wildlife habitat as well as support agriculture and community's water needs. There are several water supply conveyance facilities within Sacramento County, which are discussed in the water supply chapter. Plate HY-3 shows the 100-year flood within Sacramento County. **This map has been both updated and simplified for this FEIR.**

The Sacramento is California's largest river and carries 31% of the state's total runoff water. The Sacramento River is 384 miles long stretching form the headwaters near Mount Shasta to the mouth in the Delta.

In addition to surface water, Sacramento County has underlying aquifers. Recharge to the groundwater basin is derived from rain, applied water and streamflow.

The Sacramento Valley is one of California's major agricultural regions, with more than 2.1 million acres of irrigated farmlands in the valley. As a result of this agriculture, however, only 5% of the valleys original 500,000 acres of riparian forest remain.

Plate HY-1 Sacramento County Rivers

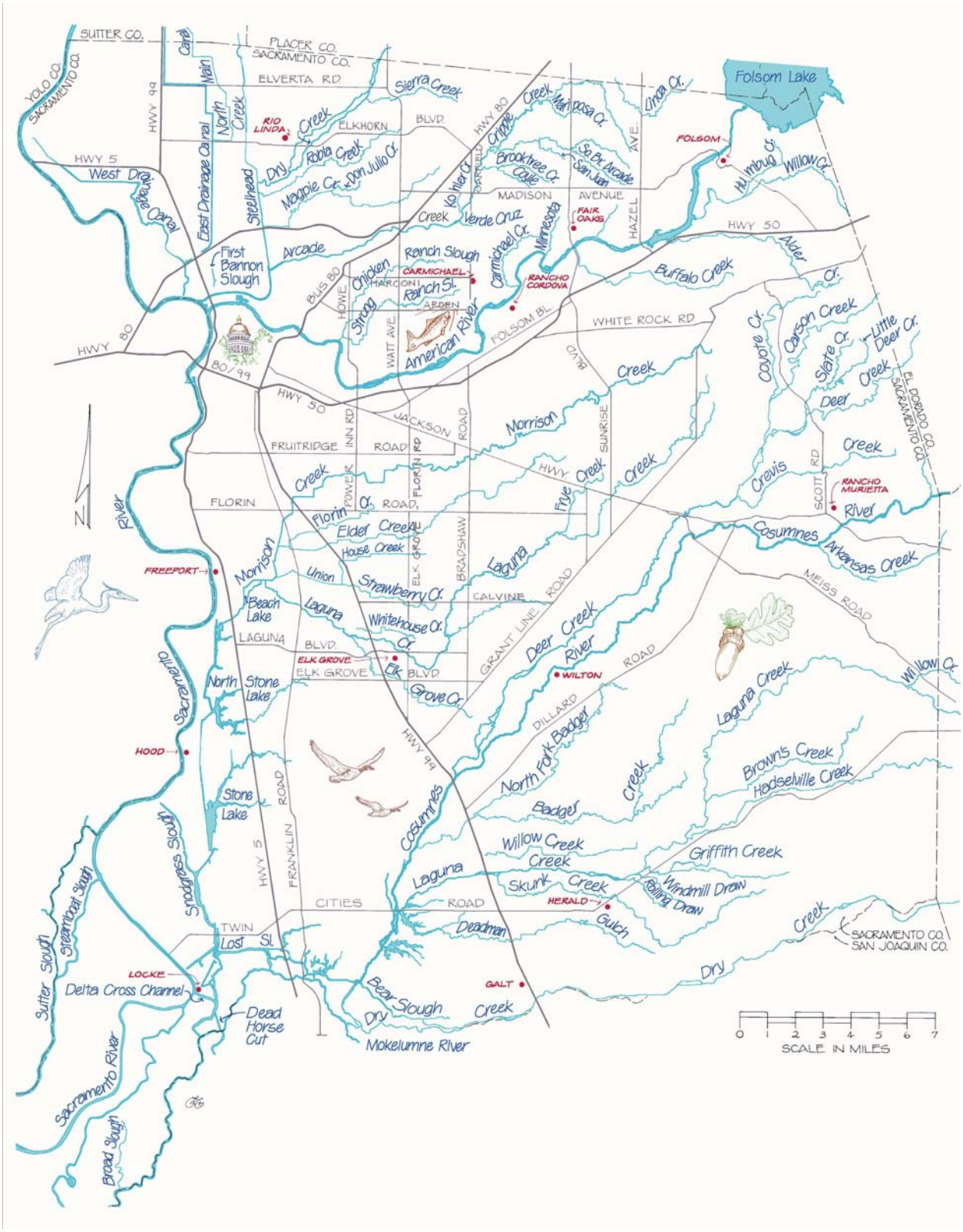


Plate HY-2 Delta Zones

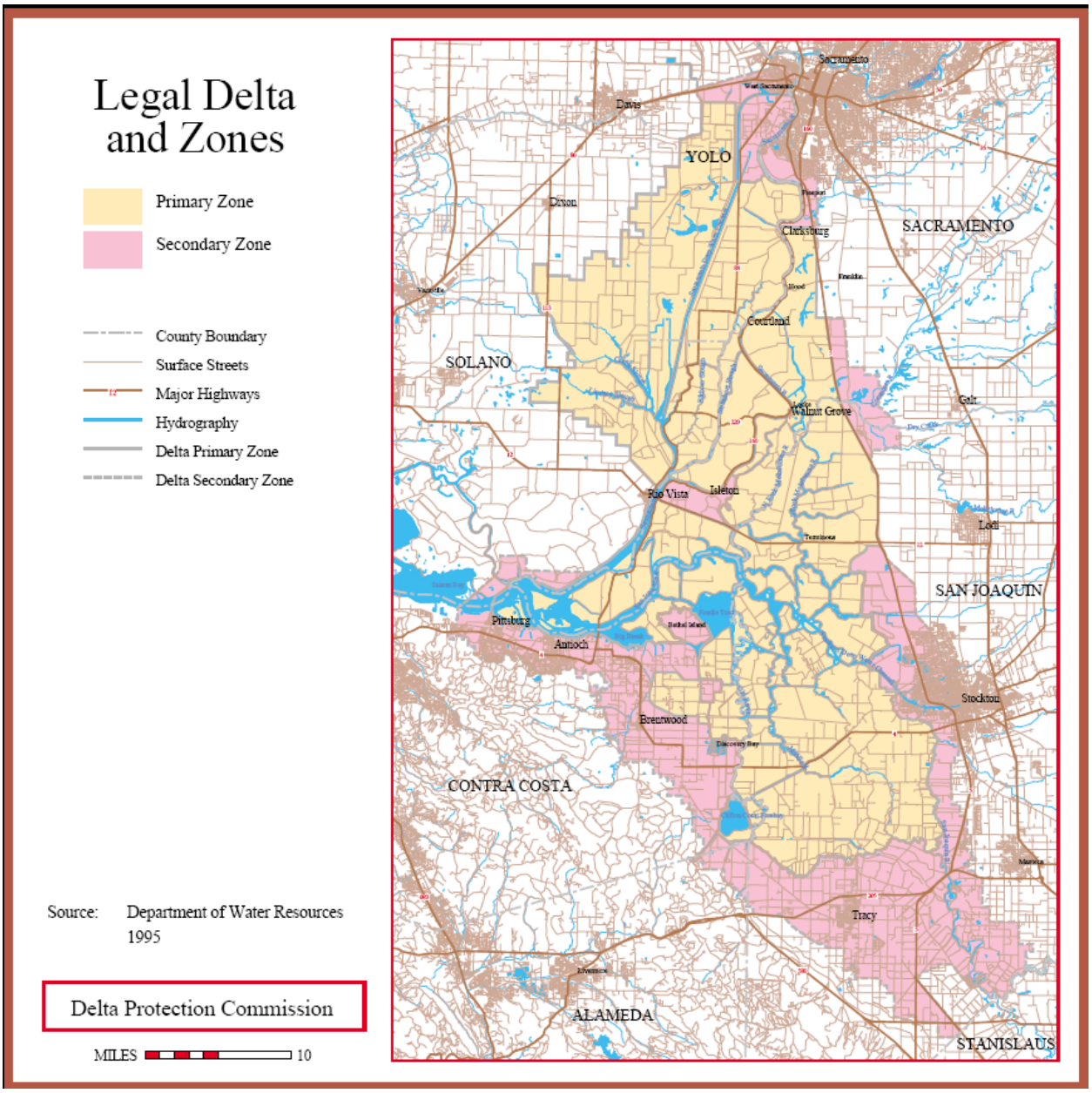
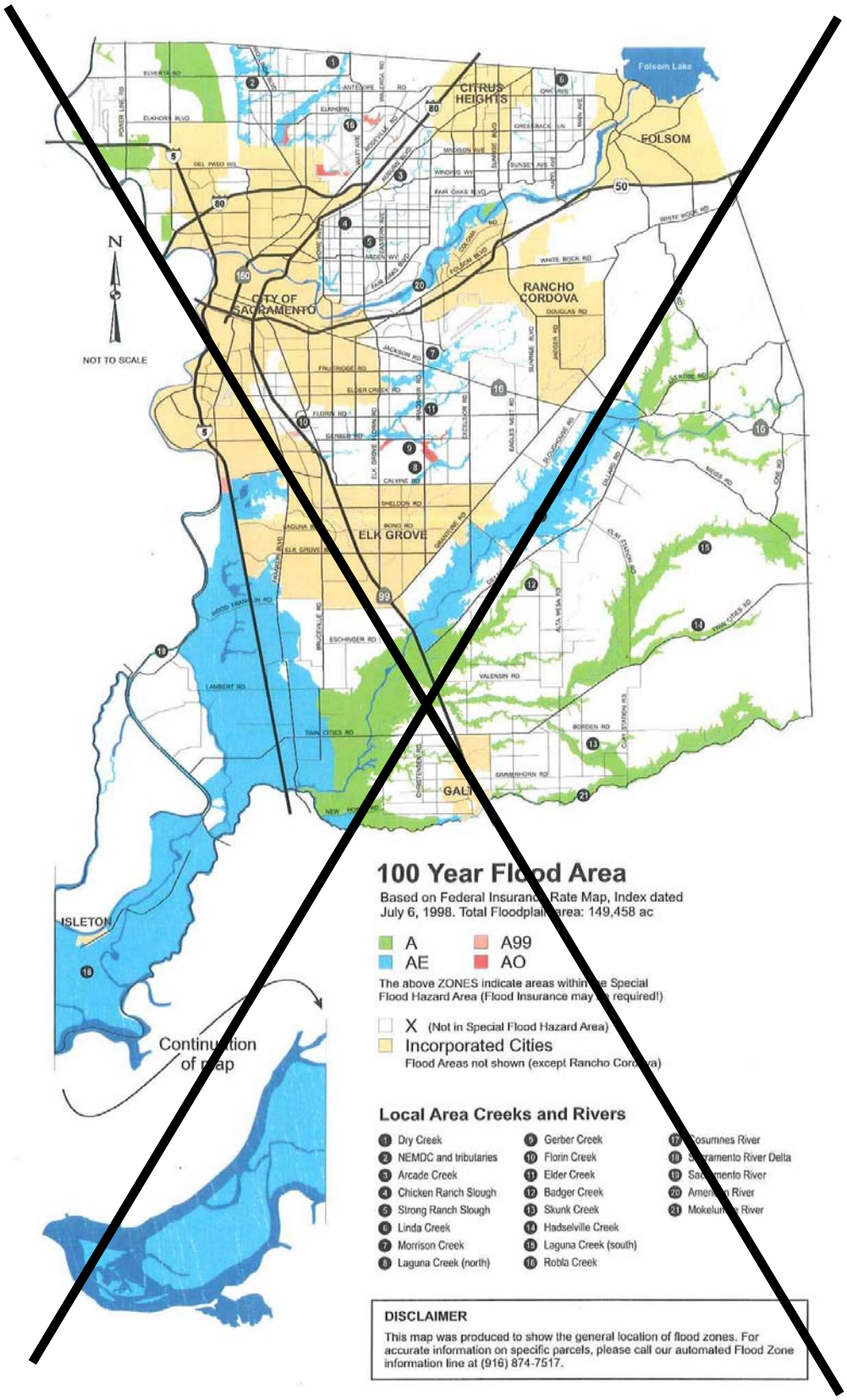
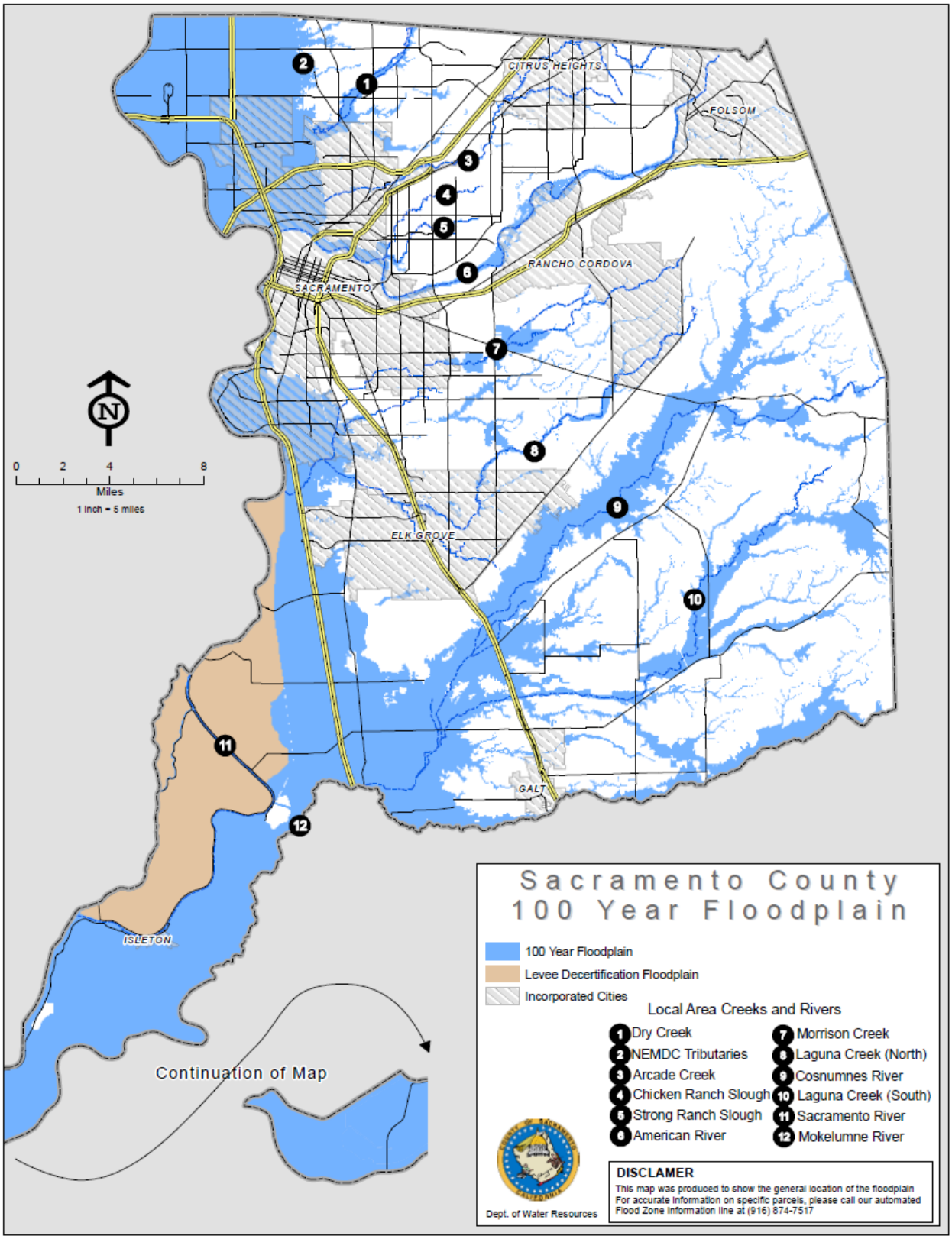


Plate HY-3 100-Year Floodplain




CITRUS HEIGHTS
FOLSOM
RANCHO CORDOVA
SACRAMENTO
ELK GROVE
GALT
ISLETON
N
0 2 4 8
Miles
1 Inch = 5 miles
Continuation of Map
Sacramento County
100 Year Floodplain
100 Year Floodplain
Levee Decertification Floodplain
Incorporated Cities
Local Area Creeks and Rivers
1 Dry Creek
2 NEMDC Tributaries
3 Arcade Creek
4 Chicken Ranch Slough
5 Strong Ranch Slough
6 American River
7 Morrison Creek
8 Laguna Creek (North)
9 Cosnumnes River
10 Laguna Creek (South)
11 Sacramento River
12 Mokelumne River
Dept. of Water Resources
DISCLAMER
This map was produced to show the general location of the floodplain
For accurate information on specific parcels, please call our automated
Flood Zone Information line at (916) 874-7517

LOCAL DRAINAGE

The hydrologic setting for the Proposed General Plan is local as well as regional. Within urban neighborhoods and communities there are engineered drainage systems consisting of pipes, gutters, swales, ditches and graded land.

The character of the urban watershed is reflected by the quality of water flowing in the rivers and streams. In Sacramento County relatively high quality water is available for various uses including: recreation, agriculture, municipal water supply and wildlife habitat. The average runoff from the Sacramento River Basin is estimated to be 21.3 million acre-feet per year, which is enough water to cover 20 percent of the area of California under a foot of water. The melting snow pack in the Sierra Nevada keeps the water flowing even during dry summer months.

Sacramento County contains a comprehensive flood control system consisting of dams, levees, weirs or diversion structures. These facilities regulate flood flows and water levels in the rivers though out the year.

REGULATORY SETTING

EXISTING GENERAL PLAN

The existing General Plan includes two Elements relevant to flooding and water quality: the Safety Element and the Conservation Element. The Project does not include any new policies in the Safety Element, but does modify some policies. The Conservation Element includes many updated features, including many new policies. Refer to the "Proposed General Plan Safety and Conservation Elements" section of this chapter. In the existing General Plan, Conservation Element policies CO-9 through CO-17 relate to surface water quality, and Safety Element policies SA-5 through SA-21 relate to flooding.

The Conservation Element policies direct the inclusion of stormwater quality and stormwater control elements within development projects and master-planning documents; prohibits the placement of hazardous wastes in floodplain areas; directs the management of agricultural runoff to avoid the introduction of excessive nutrients into local waterways; directs the control of erosion related to roads, borrow pits, and surface mining operations; instructs that grading on slopes of greater than 20% should be minimized; and encourages inter-jurisdiction cooperation on long-term water quality monitoring of the County's waterways.

The Safety Element policies direct the preparation of master drainage plans before urbanizing an undeveloped watershed; direct participation in levee projects along the Sacramento and American Rivers; prohibit bridge projects from causing a 1-foot rise in the 100-year water surface elevation, unless it's demonstrated there will be no adverse affects; state that projects outside the Urban Services Boundary are not permitted to place fill in the 100-year floodplain unless it is for a septic system or structure, and then only if it is demonstrated that there will be no negative effects; direct implementation of

flood control projects in natural streams in urbanized or urbanizing portions of the County; direct inter-jurisdiction coordination on floodplain concerns; encourage implementation of the FEMA program; direct regulation of floodplain development through the use of zoning and other ordinances; direct inter-jurisdiction and inter-agency coordination to eliminate flooding within Sacramento County; prohibit the creation of parcels that do not have and cannot create buildable area outside the 100-year floodplain; state that for residential zoning, buildable area outside the 100-year floodplain must be contiguous and reasonably situated; state that vehicular access must be above the 10-year floodplain; direct restriction of watercourse crossings; state that levees for the purpose of floodplain reclamation shall be discouraged, but that if such levees are constructed they shall provide 200-year protection; and upzoning within 100-year floodplains shall not be permitted unless a Master Drainage Study is prepared.

FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)

FEMA maintains and updates the National Flood Insurance Program maps, called the Federal Insurance Rate Map (FIRM) that define areas of federal flood hazard. In Sacramento County and elsewhere the floodplains are identified based on U.S. Army Corps of Engineers (Army Corps) studies. FIRM maps denote the location of the federal 100-year flood area, 500-year flood area, and the Base Flood Elevation. In a 100-year floodplain, there is a 1% chance of flooding in a given year, and in a 500-year floodplain, there is a 0.2% chance of flooding in a given year. If an area is within a 100-year floodplain, flood insurance is required by most mortgage companies. FEMA is also responsible for the accreditation of levee systems (certification is by the Army Corps).

Not all 100-year floodplains are mapped by FEMA, because the focus of the FEMA FIRM maps is to provide information for insurance programs. Areas that have very little development that would be at risk from flooding, such as rural areas and wilderness areas, typically are not mapped. In Sacramento County, some of the rural areas of the eastern part of the County with watersheds that are generally less than 1 square mile in size have not been mapped by FEMA. Areas not mapped by FEMA, or areas where there are additional site-specific constraints that change the shape of the floodplain, are referred to as local floodplains in this EIR.

SACRAMENTO COUNTY DEPARTMENT OF WATER RESOURCES

As discussed in the Regulatory Setting section, not all floodplains are mapped by FEMA. Though not mapped by FEMA, these local 100-year floodplains are still identified by the Sacramento County Department of Water Resources (County DWR) and regulated by the provisions of the Sacramento County Floodplain Management Ordinance, Improvement Standards, and Local Floodplain Management Plan. Local floodplains in the County are typically mapped either in response to an area having flooding problems, or in response to a request by a property owner to make modifications to their parcel. County DWR staff investigate the property and either decide that there is sufficient existing information to determine the floodplain elevation

on the property or that a drainage study is required before a determination can be made.

WATER QUALITY LEGISLATION

Government agencies regulate potential impacts to water quality in order to comply with legislative acts such as: the Clean Water Act (CWA), the Porter-Cologne Water Quality Act (Porter-Cologne), the Rivers and Harbors Act, Wild and Scenic Rivers Act, and the California Environmental Quality Act (CEQA). The Clean Water Act contributes to the dramatic improvement of surface water bodies in the United States. The Rivers and Harbors Act prevents obstructions to navigation, including dumping of trash and sewage. Section 7 of the Wild and Scenic Rivers Act prohibits adverse effects on the values of the river, which may include impacts to water quality. CEQA prevents avoidable damage to water quality by requiring changes in projects through the use of alternatives or mitigation measures [15002(a)(3)]. Coordinated efforts by the following agencies protect water supplies from degradation:

- County of Sacramento
- Sacramento Area Flood Control Agency (SAFCA)
- California Department of Fish and Game (CDFG)
- State Water Resources Control Board (SWRCB)
- Regional Water Quality Control Board (RWQCB)
- State Lands Commission
- U.S. Coast Guard (Coast Guard)
- National Park Service (NPS)
- State Department of Water Resources Reclamation Board
- U.S. Army Corps of Engineers (Corps)

The following discussion outlines how legislative acts and the enforcement of regulatory agencies ensure potential impacts to water quality are adequately considered.

RIVERS AND HARBORS ACT

The Corps administers actions that require evaluation and permitting pursuant to Section 10 of the Rivers and Harbors Act. ~~and sections 301, 402, and 404 of the CWA.~~

Section 10 of the Rivers and Harbors Act requires a permit for structures and/or working in or affecting navigable waters of the United States. A navigable water of the United States is defined in 33 CFR 329.4 as “those waters that are subject to the ebb and flow of the time and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.”

In accordance with 33 CFR 329.11(a) for non-tidal waters, the Corps’ jurisdiction extend “laterally to the entire water surface and bed of a navigable water body, which includes

all the land and waters below the ordinary high water mark. Jurisdiction thus extends to the edge (as determined above) of all such water bodies, even though portions of the water body may be extremely shallow, or obstructed by shoals, vegetation or other barriers." The COE would only regulate wetland habitat under Section 10 of the RHA insofar as the area is subject to inundation by the ordinary high waters.

In accordance with 33 CFR 329.12(a)(2) for tidal waters, the shoreward limit of jurisdiction extends to the line on the shore reached by the plane of the mean (average) high water. Where precise determination of the actural location of the line becomes necessary, it must be established by survey with reference to the available tidal datum, preferably averaged over a period of 18.6 years. Less precise methods, such as observation of the 'apparent shoreline' which is determined by reference to physical markings, lines of vegetation, or changes in type of vegetation, may be used only where an estimate is needed of the line reached by the man high water.

~~Environments potentially subject to Corps jurisdiction include: wetland habitat and the deepwater habitat of rivers and streams. The landward limits of deepwater habitat in non-tidal waters is defined by the Ordinary High Water Mark (OHWM). The OHWM is the line on the shore established by fluctuations of water, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter or debris, or other appropriate means that consider the characteristics of surrounding areas. The OHWM can also be defined as the elevation the water reaches during 50 percent of the winter storms.~~

PUBLIC TRUST DOCTRINE

The State Land Commission administers public trust lands. The lands under navigable waters are known as public trust lands. The state holds the title for public trust land for the people of the State to enjoy the navigation of the waters, fishing, and other common uses free from obstruction or interference from private parties[1]. According to the Public Trust Doctrine, the Commission is responsible for accommodating the public's right to use and enjoy the unique qualities of the public trust lands. Rivers provide numerous opportunities for anglers especially during the salmon and steelhead runs. The fish rely on the historically high water quality of the rivers within Sacramento County. Threats to water quality also threaten the enjoyment of the public trust land; therefore, the Commission may impose certain conditions to protect water quality as it relates to the benefit of the people and the requirements of the Public Trust Doctrine. Furthermore, the Commission must comply with the requirements of CEQA.

CEQA requires Sacramento County, as the lead agency, to make a determination whether the project may have a significant effect on the environment including impacts to water quality.

[1] *Illinois Central R.R. Co v Illinois* (1892) 146 U.S. 387,452.

WILD AND SCENIC RIVERS ACT

The Lower American River is a component of the National Wild and Scenic Rivers (WSR) System. Section 7 of the WSR Act prohibits federal agencies from assisting by loan, grant, license or otherwise in the construction of any water resources project that would have a direct and adverse effect on the values for which such river was established. Water resources projects include projects involving construction in the bed or on the banks of the river. As the federal administering agency for the Lower American River, the National Park Service (NPS) is responsible for conducting this review and determining project's consistency with the Act.

The high water quality of the American River contributes to the success of salmon and steelhead, which are considered a protected value under the Wild and Scenic Rivers Act.

DELTA PROTECTIONS ACT

The Johnston-Baker-Andal-Boatwright Delta Protection Act of 1992 (Senate Bill 1866) was approved on September 23, 1992. The act recognizes that the Sacramento-San Joaquin Delta is a "natural resource of statewide, national, and international significance, containing irreplaceable resources, and it is the policy of the State to recognize, preserve, and protect those resources of the delta for the use and enjoyment of current and future generations". The legislation requires the establishment of a Delta Protection Commission and requires the commission to prepare and adopt a comprehensive long-term resource management plan for the delta "which meets specified requirement plans for the "primary zone". The "primary zone" is defined as "the delta land and water area of primary state concern and statewide significance which is situated within the boundaries of the delta, as described in Section 12220 of the Water Code, but which is not within either the urban limit line or sphere of influence of any local government's general plan or currently existing studies, as of January 1, 1992".

STREAMBED ALTERATION

Section 1603 of the Fish and Game Code requires applicants to notify the California Department of Fish and Game (CDFG) before beginning a project if the project will substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake or use materials from a streambed. Notification is generally required for any project that will take place in the vicinity of a river, stream, or lake. The recommendations of CDFG may include steps to protect water quality.

PORTER-COLOGNE WATER QUALITY ACT

Porter-Cologne is enacted as part of the California Water Code, and is intended to protect the quality of waters within the State. Porter-Cologne covers may of the same issues as the Federal Clean Water Act (see below), but is specific to the needs and objectives of the State. Waters protected by the Clean Water Act must be navigable or

hydrologically connected to navigable waters, whereas Porter-Cologne does protect these so-called "isolated" waters. The State Water Resources Control Board (Water Board) and the Regional Water Quality Control Boards (Regional Water Board) are responsible for the coordination and control of water quality protection efforts related to Porter-Cologne.

CLEAN WATER ACT

The Clean Water Act (CWA) is the Federal regulation covering surface water quality – it does not address either groundwater or water quantity. Surface waters protected by the CWA must either be navigable or hydrologically connected to a navigable water. The provisions of the CWA are administered and regulated primarily by the Environmental Protection Agency (EPA), the California EPA (Cal EPA), the Army Corps, and the State and Regional Water Boards. Under the "umbrella" of Cal EPA, the State and Regional Water Boards are responsible for administration of the National Pollutant Discharge Elimination System program, which deals with stormwater pollution from construction, industrial areas, and municipal areas. The Army Corps is responsible for issuance of the CWA Section 404 permit, which deals with the discharge of dredged or fill material in a surface water, and the State and Regional Water Boards are responsible for issuance of the CWA Section 401 permit, which covers the same activity. Section 303(d) of the Clean Water Act (CWA) also requires States to identify waters that do not meet water quality standards, and to develop plans to address polluted water bodies on the 303(d) list.

STORMWATER POLLUTION AND EROSION CONTROL

Section 402 of the CWA established the National Pollutant Discharge Elimination System (NPDES) permit program to prohibit the unauthorized discharge of pollutants from a point source to U.S. waters. The County of Sacramento has obtained a Municipal Stormwater NPDES permit from the Central Valley Regional Water Quality Control Board under the requirements of the Clean Water Act to reduce pollutants found in urban stormwater runoff to the maximum extent practicable. The County complies with this permit by developing and enforcing ordinances and requirements to reduce the discharge of sediments and other pollutants in runoff from areas within the County.

Sacramento County must verify compliance with permit requirements by monitoring effluent, maintaining records, and filing periodic reports. A provision of the NPDES permit is the requirement that Sacramento County develop a Construction Site Management Program. The Construction Site Management Program is intended to help protect the water quality of surface waters by minimizing the amount of sediment runoff from a construction site. This is being accomplished by enforcement of the existing County Land Grading and Erosion Control Ordinance.

In addition, the NPDES permit requires Sacramento County to develop, administer and implement a Comprehensive Stormwater Management Program in order to reduce stormwater pollution to the maximum extent practicable. Controlling urban runoff pollution during and after construction is critical. The goal is to minimize runoff pollution

and protect the beneficial uses of receiving waters by employing a combination of pollutant source control and site specific treatment control measures. The Guidance Manual for On-site Stormwater Quality Control measures refers to best management practices as being source control and treatment control measures incorporated in the design of a land development or redevelopment project, which prevents and/or reduces pollutants in stormwater runoff from the project to the maximum extent practicable.

Various treatment control measures have been determined to be appropriate for conditions in Sacramento: swales, filter strips, media filters, and infiltration. Swales are defined as vegetated, shallow channels with gentle side-slopes. Curb and gutter systems can be designed with multiple openings in the curb to direct runoff into vegetated swales (Plate). These swales function as biofilters that remove sediment and pollutants.

Sacramento County enacted the *Land Grading and Erosion Control Ordinance* (Ordinance) in order to limit degradation of the water quality of watercourses; and curb the disruption of drainage system flow caused by clearing, grubbing, grading, filling, and excavating land (Sacramento County Code, Title 16, Chapter 16.44). The Ordinance established administrative procedures, minimum standards of review, and implementation and enforcement procedures for the control of erosion and sedimentation that are directly related to land grading activities. The standards of the Ordinance include the appropriate design and placement of erosion and sediment control best management practices (BMPs), as specified in the *Sacramento County Guidance Manual for Development of Erosion and Sediment Control Plans* (1993).

The Stormwater Ordinance (Chapter 15.12 of the County Code) prohibits the discharge of unauthorized non-stormwater to the County's stormwater conveyance system and local creeks. It applies to all private and public projects in the County, regardless of size or land use type.

In addition to complying with the County's ordinances and requirements, construction sites disturbing one or more acres are required to comply with the State's General Stormwater Permit for Construction Activities. The Construction General Permit is issued by the State Water Resources Control Board and enforced in Sacramento County by the Regional Board. Coverage is obtained by submitting a Notice of Intent to the State Board prior to construction. The General Permit requires preparation and implementation of a site-specific Stormwater Pollution Prevention Plan that must be kept on site at all times for review by the State inspector.

PROPOSED GENERAL PLAN CONSERVATION AND SAFETY ELEMENTS

The proposed General Plan contains many new policies that pertain to stormwater and/or water quality objectives. For some of these, the underlying concept of the policy is contained within the narrative text of the existing General Plan. The concept is not new, but the placement of that idea within a policy is new. The Safety Element, which

deals with floodplain issues, contains three new policies and includes modifications to additional policies. Appendix A includes the new Conservation Element Policies, and both the modified text and the existing text of the relevant Safety Element policies.

HYDROLOGIC AND HYDRAULIC CONDITIONS

To control flooding in Sacramento County, there is an extensive system of dams, levees, overflow weirs, drainage pumping plants and flood control bypass channels strategically located on the Sacramento and American Rivers and various creeks. These facilities can control floodwaters by regulating the amount of water passing through a particular reach of the river. The amount of water flowing through the levee-bound river system can be controlled by Folsom Dam on the American River and the reserve overflow area of the Yolo Bypass on the Sacramento River. There are 12 significant dams in Sacramento County. Of these, two are under federal jurisdiction, Folsom and Nimbus, and the other ten are non-federally owned and are under the jurisdiction of the California Division of Safety of Dams.

AMERICAN RIVER SYSTEM

The American River Flood Control System consists of the Folsom Dam, Nimbus Dam, an auxiliary dam at Mormon Island, eight earth-filled dikes, and four miles of levees on the north bank of the American River (from Howe Avenue to Arden Way). The system receives runoff from the American River watershed, which contains about 2,100 square miles of the western slope in the Sierra Nevada. Folsom Lake, when full, holds approximately 1,000,000 acre-feet of water. Water released by Folsom Dam is stored by Nimbus Dam, which re-regulates the water to achieve the desired flows downstream in the American River.

The Folsom Dam is undergoing modification through the Folsom Dam Modification Project, which has two components. The first is called Folsom Dam Modifications (Mods) and is a project partnered between the United States Army Corps of Engineers and the Bureau of Reclamation. Currently, Folsom Dam provides approximately 100-year flood protection. The Mods project provides increased flood protection and addresses existing dam safety issues. The project involves the construction of an auxiliary spillway that will allow greater releases out of the dam during the earlier parts of a storm, and will provide 200-year protection. Project completion is currently estimated in 2015. The second project, called the Raise, is to raise the existing dikes by 3.5 feet, which will increase the amount of flood storage available to route the flood safely through the dam and downstream levee system. The Raise element will increase the protection level from 200-year to 240-year. The Raise project is expected to be complete by 2016. (Pete Ghelfi, pers. comm.)

SACRAMENTO RIVER SYSTEM

The Sacramento River Flood Control System consists of the Fremont Weir, Sacramento Weir, Yolo Bypass Channel, and levees along the Sacramento River, Lower American River, Natomas East Main Drain (NEMD), Arcade Creek, Natomas Cross Channel and the Sacramento Bypass Channels. In October 2007, the city and county of Sacramento asked the Army Corps to certify the Natomas levee system along the Sacramento River in order to meet FEMA qualifications for a less restrictive flood zone classification. The FEMA designation would lower flood insurance rates and allow unrestricted development. The Army Corps found that some sections of the 34-mile levee system that protects the Natomas basin were either too low or weakened by water seepage. In light of the Army Corps' findings, FEMA put a restriction on building in Natomas, requiring new construction to be at least 20 feet off the ground. Existing homes, malls, offices and apartments were built after the Corps originally certified the levees in 1998 for a 100-year flood protection. The Corps decertified the levees in this area in 2006.

DELTA REGION

The Delta Region lies within a floodplain and is faced with a major flooding problem because of inadequate levee construction and maintenance, subsidence, seepage, erosion and seismicity. Flooding has occurred in some part of the Delta on the average of once every three and one-half to four years. While construction of upstream reservoirs has reduced the threat of overtopping, Delta levee failures continue to be a serious problem. Since 1950, levee failures have been twice as likely to be caused by foundation or levee instability than by overtopping. The condition of Delta levees is continually worsening and flooding potential is increasing.

The Corps has estimated that there is likely to be two to three times the number of structural levee failures due to subsidence during the next 30 years as there has been in the last 30 years. Irrigated agricultural practices cause much of the subsidence. Organic soils on most Delta islands subside up to three inches a year which places increased hydrostatic pressure on the levees. Flooding is not limited to the winter storm season. Levee stability problems and the potential for liquefaction are year-round problems that can trigger flooding.

MORRISON CREEK SYSTEM

The Morrison Creek System provides varying degrees of protection from a 40-year level to over a 100-year level. The Corps report, "Advanced Engineering and Design, Morrison Creek Stream Group, 1987, indicated that levees and channels lacked adequate capacity to handle a 100-year storm. Plans exist for improvements of channels and other facilities at Lambert Road.

LEVEES

Levees are earthen embankments whose primary purpose is to furnish flood protection, and are broadly classified as either urban or agricultural because of the different

requirements for each. Urban levees provide protection from flooding in the industrial, commercial, and residential areas of communities. Agricultural levees provide protection from flooding in lands used for agricultural purposes. Though the average person may think of an individual levee as the structure that runs the entire length a river, that isn't how levees are identified for maintenance and regulation purposes. Though a contiguous system of levees may run the entire river length, this system is made up of multiple individual levees with individual identification numbers. There are more than 200 such individual levee identification numbers within unincorporated Sacramento County, and over 400 when including the incorporated cities.

Each individual levee is assigned a separate certification status, and most have an identified entity that is responsible for levee maintenance. In unincorporated Sacramento County, most levees are owned by a Reclamation District, but some are the responsibility of entities like Sacramento County, the American River Flood Control District, or the California Department of Water Resources. Plate HY-4 is an exhibit showing the locations of the levees within Sacramento County. Not all of these levees have been constructed to the same standards. The levees in the urban areas of Sacramento County are "project levees" or "federal levees" that were designed and built by the Army Corps to uniform standards, or locally constructed levees that have been adopted as federal levees. In agricultural areas, and particularly the Delta, many levees are "non-project", which were built without a common design or engineering standards.

Plate HY-4 Levees in Sacramento County

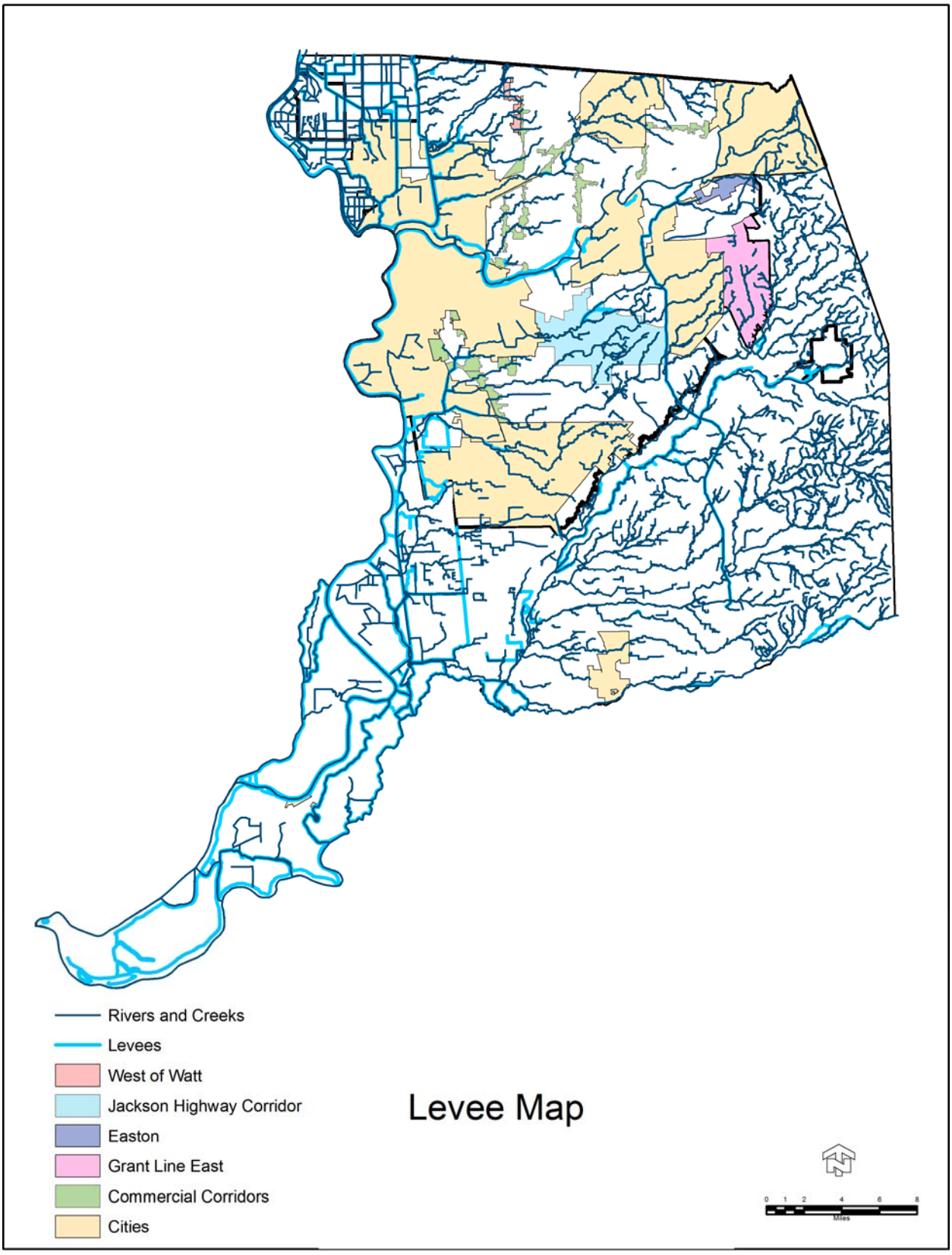
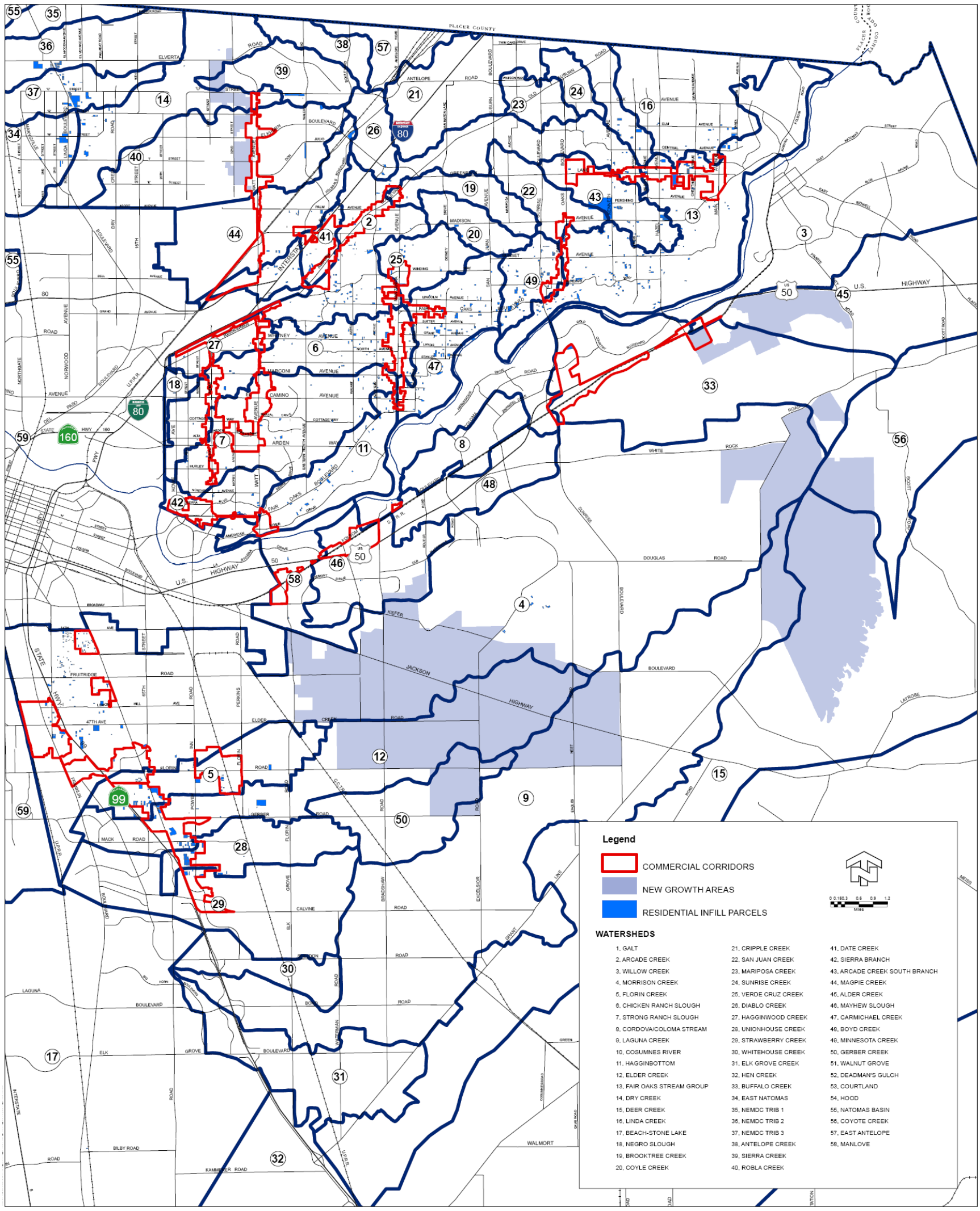


Plate HY-5 Watersheds Associated with Infill, Commercial Corridors, and New Growth Areas



SIGNIFICANCE CRITERIA

According to the CEQA Guidelines, impacts may be significant if the Project results in one of the following:

1. A violation of any water quality standard or waste discharge requirement.

2. A substantial alteration of 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, siltation, and/or environmental harm on- or off-site.

3. Create or contribute runoff water that would provide substantial additional sources of polluted runoff. Changes in water quality would be considered substantial if the Project will not comply with the County NPDES Program, or there is a net increase in any other pollution source associated with an impaired waterway (under Section 303d of the Clean Water Act).

4. Substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site.

5. Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems.

6. Placement of 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.

7. Placement of structures within a 100-year flood hazard area that would impede or redirect flood flows.

8. Exposure of people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of a failure of a levee or dam.

METHODOLOGY

The analyses below include maps of floodplain, watershed, and levee locations in relation to the growth areas included as strategies in the General Plan. As appropriate, calculations are included that determine the area within each watershed that is planned to accommodate new growth, and the proportion of growth areas that are within mapped floodplain. Potential impacts are assessed based on these maps and calculations. For water quality impacts, the discussion is more qualitative. The analysis describes what pollutants may be introduced by the existing setting, and discusses

whether the Project is likely to introduce new or further loads of pollutants. The analysis also discusses whether the waterbodies affected by any new growth area currently on the 303(d) list as impaired for a pollutant that the Project is likely to introduce. When available, the analyses rely on previous Environmental Impact Reports.

IMPACTS AND ANALYSIS

Land development results in increased impervious area, channelized drainage courses, and increased peak flow runoff and volume. Such impacts may be calculated using the Sacramento Hydrology Calculator, which is a Windows-based platform overlaying the Army Corps of Engineers Hydrologic Engineering Center HEC-1 program. Sacramento County established hydrology standards in 1996 which have been approved by FEMA.

Soil in Sacramento County is generally very cohesive and when saturated it is relatively impervious, infiltrating only about 0.07 inch/hour. Climate in the Sacramento area is such that the soil remains nearly saturated through the rainy season. Consequently, development in Sacramento County does not have as much effect on hydrology as similar development would have in areas of more permeable soil. Nonetheless, there are impacts to floodplains and aquatic habitat associated with development. Such impacts are typically reduced by constructing runoff attenuation (such as low-impact development measures and detention basins). These can be modeled using County Hydrology model storms, and by continuous simulation of historic storm events depending on the sensitivity of each watershed area.

The analyses to follow used modeling to roughly quantify floodplain impacts; all hydrology, peak flow, and volume calculations provided below are coarse level analysis. All hydrologic analyses below used gross acreage in a single shed, assumed development of the entire area (i.e. no open space remains), and assumed that the total maximum units anticipated by the General Plan were spread evenly over the entire Growth Area. There are many variables that cannot be considered at this stage, including variations in development density, routing of storm drain systems, routing of surface flows, open space preservation, and environmental constraints that are not discoverable at this stage.

The Jackson Highway Corridor includes the watersheds of Elder Creek, Gerber Creek, Laguna Creek, Mayhew Slough, and Morrison Creek. The Grantline East Area includes tributaries to the Buffalo Creek, Coyote Creek, Deer Creek, Laguna Creek and Morrison Creek watersheds. The Easton Planning Area effects the watersheds of Buffalo Creek and Alder Creek. The West of Watt New Growth Area is located over watersheds of Dry Creek and Robla Creek tributaries.

IMPACT: PROPOSED POLICIES

All of the proposed new and modified General Plan policies are beneficial or neutral with respect to environmental impacts. New and modified policies are included within Appendix A for review. Impacts are *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: PROJECT EFFECTS ON FLOODPLAINS

INFILL AND COMMERCIAL CORRIDORS

This category includes both the residential infill assumed by the General Plan, and the proposed Commercial Corridors. Although the Commercial Corridors strategy is separate from the residential infill strategy, both strategies assume redevelopment and buildout of vacant properties, and parcels identified by the two strategies are located within the same watersheds. As a result, these strategies have been combined for the purposes of analysis.

Commercial Corridors and/or parcels identified through the residential infill strategy are found within a significant number of the watersheds in the County. Of the 58 watersheds in the County, 40 contain either a new growth area, a Commercial Corridor, or parcels identified as part of the infill strategy. The table below lists the watersheds with Commercial Corridors or residential infill parcels, the acreage within each watershed, and the acreage of land occupied by Commercial Corridor or infill parcels.

Table HY-1 Proportion of Infill within Watersheds

Watershed	Watershed Acreage	Corridor Acreage	% of the Watershed	Infill Acreage	% of the Watershed
Alder Creek	7398	38	0.50%	--	--
Arcade Creek	6477	631	9.70%	54	0.80%
Arcade Creek South Branch	1640	135	8.20%	116	7.00%
Beach-Stone Lakes	40118	--	--	0.42	< 0.10%
Boyd Creek	2124	1	< 0.10%	1	< 0.10%
Brooktree Creek	1180	52	4.40%	1	< 0.10%
Buffalo Creek	8855	673	7.60%	6	< 0.10%
Carmichael Creek	2715	157	5.80%	73	2.70%

Watershed	Watershed Acreage	Corridor Acreage	% of the Watershed	Infill Acreage	% of the Watershed
Chicken Ranch Slough	3613	458	12.7%	37	1.00%
Cosumnes	45130	--	--	179	0.40%
Coyle Creek	996	--	--	5	0.50%
Cripple Creek	4367	--	--	13	0.30%
Date Creek	601	250	41.6%	17	2.90%
Diablo Creek	948	--	--	4	0.40%
Dry Creek	4161	29	0.70%	16	0.40%
East Natomas	1897	--	--	28	1.50%
Elder Creek	7873	345	4.40%	58	0.70%
Fair Oaks Stream Group	7681	484	6.30%	117	1.50%
Florin Creek	2829	--	--	80	2.80%
Hagginbottom	2606	115	4.40%	27	1.00%
Hagginwood Creek	897	209	23.3%	3	0.30%
Linda Creek	3630	21	0.60%	18	0.50%
Magpie Creek	3727	297	8.00%	20	0.50%
Manlove	1968	155	7.90%	1	< 0.10%
Mayhew Slough	2956	276	9.30%	3	0.10%
Minnesota Creek	1152	112	9.70%	42	3.60%
Morrison Creek	34530	1295	3.80%	84	0.20%
Natomas Basin	26449	--	--	1.32	< 0.10%
Negro Slough	285	--	--	0.3	0.10%
NEMDC Trib 2	2777	--	--	27	1.00%
NEMDC Trib 3	1614	--	--	47	2.90%
Robla Creek	5226	262	5.00%	11	0.20%
San Juan Creek	1354	59	4.30%	18	1.30%
Sierra Branch	1172	242	20.6%	10	0.90%
Sierra Creek	1726	--	--	9	0.50%

Watershed	Watershed Acreage	Corridor Acreage	% of the Watershed	Infill Acreage	% of the Watershed
Strawberry Creek	5559	239	4.30%	13	0.20%
Strong Ranch Slough	4446	648	14.6%	27	0.60%
Unionhouse Creek	2201	143	6.50%	38	1.70%
Verde Cruz Creek	1263	132	10.5%	14	1.10%
Willow Creek	14570	57	0.40%	14	0.10%

The identified Commercial Corridors are essentially built-out. The plan for these corridors is to renovate existing old structures, convert some commercial uses into residential uses (or vice versa), and introduce multi-story mixed use buildings into areas that are currently single-use. These activities are not expected to increase runoff in the Commercial Corridors, because there will be no net expansion of the impervious area in the corridors. In fact, many existing commercial properties in the corridors have very little landscaping because they pre-date the more modern requirements to have landscaped planters in parking areas. Redeveloping these properties and areas will introduce additional landscaping elements, which will result in a decrease to the amount of impervious surfacing in the Commercial Corridors.

The infill parcels were identified because they are either vacant residential properties, or they are developed below the density allowed by the zoning. Development of these areas will increase the amount of impervious surfaces, and will correspondingly increase the amount of runoff from these areas. However, as shown in Table HY-1 infill acreage in most locations amounts to less than 1% of the total watershed area. Arcade Creek South Branch has the highest amount, at 7%, but this is due to two very large infill parcels. The peak runoff flow and volume impacts associated with developing these areas will have a minimal impact on the greater watershed. Nevertheless, there may be localized drainage concerns that would be accounted for in site-specific drainage studies for infill developments within the other watersheds that will be limited to determining impacts on a more localized basis. County DWR staff indicated that, in accordance with County policies and procedures, a drainage study would be required either at the time of entitlement review or improvement plan review to identify potential impacts and to devise ways to offset them. The scope of the study will be determined by the size of the infill project as well as the physical characteristics of its location.

Pursuant to the County of Sacramento Improvement Standards and Floodplain Management Ordinance, all infill projects require an analysis of how their grading impacts the surrounding area in which they are located, including identification and preservation of floodplain storage, and determination of minimum construction elevations necessary to protect the new development. Any proposed loss of floodplain storage will be analyzed to determine if there are impacts to water surface elevations on

any adjacent properties. In addition, larger infill projects will be required to broaden their study approach to determine any impacts on a regional basis.

All development projects, large or small, are required to submit a site drainage study at a minimum, either at the planning stage or improvement plan stage. A site drainage study is used to determine the adequacy of the existing and proposed pipe system, overland release requirements for the area, and to identify any necessary upgrades needed to the nearby drainage facilities. The studies are required to include a map of proposed and existing drainage pipe facilities as well as overland release calculations and proposed locations. For all but the smallest projects, a computer drainage pipe model is required to determine hydraulic grade line profiles for the pipes to ensure the pipe sizing is adequate. These models represent the pipe system's performance while conveying the Nolte Design flow of approximately 0.3 to 0.5 cfs/acre depending on land use. Larger storm flows run overland and are routed by design through open areas or streets to preserve public safety and prevent damage to proposed or existing structures.

Drainage pipe analysis and overland release analysis are minimum requirements for site drainage studies. All studies analyze land use changes, which includes the change in imperviousness. The change in imperviousness typically does not significantly alter runoff for smaller projects because the dense soil types in the northern region of the County (hardpan) takes up water only slightly faster than pavement. Larger scale projects will not only increase the imperviousness, but will also incorporate greater "channelization" such as the construction of streets, gutters, ditches, etc. that lead to increased peak runoff flows. Projects of this larger magnitude may trigger an analysis of the watershed as a whole to determine any undesirable impacts.

Compliance with the County of Sacramento Improvement Standards and Floodplain Management Ordinance will ensure that the Project will not substantially increase the rate or amount of surface runoff in a manner that causes flooding or that exceeds stormwater system capacity; impacts on floodplains within these areas are *less than significant*.

Buildout of Planned Communities

Each of the master planning areas that the Project assumes will reach buildout by 2030, including Elverta, East Antelope, Vineyard Springs, North Vineyard Station, and Florin Vineyard 'Gap', included a Drainage Master Plan. The Drainage Master Plans for these areas identified the facilities that would be necessary to support full build-out, and the attendant Infrastructure Finance Plans identified how the facilities would be funded. Compliance with these existing Drainage Master Plans, which are hereby incorporated by reference and are available for viewing at the Department of Water Resources (827 7th Street, 4th Floor, Sacramento), will ensure that the Project will not substantially increase the rate or amount of surface runoff in a manner that causes flooding or that exceeds stormwater system capacity; impacts on floodplains within these areas are *less than significant*.

NEW GROWTH AREAS

WEST OF WATT

The West of Watt area is within the Dry Creek watershed, which originates in Loomis and Newcastle, and the Robla Creek watershed, which originates east of Walerga Road. The Dry Creek watershed in the area is approximately 238 acres. The 100-year flow at the Placer/Sacramento County line is 14,000 cfs. The County DWR analysis indicates that there is no need for peak flow detention. This area is very low in the watershed, and flow detention usually occurs in the higher reaches of the watershed, to protect the downstream areas. The overall watershed that the water from West of Watt flows into is also very large, so the flows contributed by West of Watt are insignificant – the existing conveyance systems can accommodate the additional flows with no substantial increase to water surface elevations. This growth area also includes 328 acres in the Robla Creek watershed, in two tributaries. Like the Dry Creek watershed, the growth area does not appear to drive a need for peak flow attenuation. Any future master planning proposal within the growth area will require preparation of a Drainage Master Plan, pursuant to General Plan Policy SA-5. Compliance with County Ordinances, Improvement Standards, and General Plan Policy will ensure that the Project will not substantially increase the rate or amount of surface runoff in a manner that causes flooding or that exceeds stormwater system capacity; impacts are *less than significant*.

EASTON

The Easton Project EIR indicates that many detention basins will be included in the project that are designed to detain runoff within the Alder Creek and Buffalo Creek watersheds, and that these will limit discharge to pre-development levels. Based on the Easton Project's Storm Drainage Master Plan and Alder Creek Watershed Analysis, the creeks would have adequate capacity and sufficient floodplain area to convey additional flows generated by the development. It is therefore assumed that the proposed expansion of the UPA to include the Easton Project area will result in *less than significant* impacts.

JACKSON HIGHWAY CORRIDOR

The Jackson Highway Corridor is within the Elder Creek, Gerber Creek, Laguna Creek, and Morrison Creek watersheds. The Elder Creek watershed within the new growth area is about 4,267 acres. The watershed consists of the main creek fed by three upstream branches; the confluence of these branches is about 1,900 feet northwest of the intersection of Elder Creek Road and Excelsior Road. This watershed is substantially affected by a proposed aggregate strip mine on Elder Creek, known as Aspen 8 and 9, located 3,000 feet east of Bradshaw on either side of Elder Creek Road. The mining proposal includes a realignment of the creek, construction of a peak flow weir, and excavation of mined material from either side of the creek. The mined area below the grade of the creek would be shown as a flood hazard area and could be used as a peak flow and volume detention basin for Elder Creek.

The Gerber Creek watershed within the new growth area is about 895 acres. County DWR conducted a rough analysis of peak flow. The results indicate that with the entire area built out, attenuating the peak flow would require 20 acre-feet of storage volume. This could be accomplished by development of detention basins.

The Laguna Creek watershed within the new growth area is about 700 acres. Frye Creek, tributary to the Laguna Creek watershed, is about 1,300 acres of this new growth area. It flows to a crossing under Florin Road, about 2,500 feet west of Eagles Nest Road. The overall Laguna Creek watershed is substantially affected by the Triangle Aggregate strip mine. The strip mine includes a post-mining plan to construct a weir that would spill peak flood flow into the mined area (final mine closure is set for 2033). Once implemented, this will mitigate upstream development impacts in Rancho Cordova as well as upper Laguna Creek east of Grantline Road. The other purpose of this detention basin, which will ultimately be approximately 1,600 acre-feet, is the reduction of existing downstream flows in order to control the inter-basin transfer that spills along Bradshaw Road to north of Gerber Creek.

Mayhew Slough is a minor sub-watershed in this growth area that encumbers about 189 acres. Most of this land has been mined for aggregates, and the grade is below the receiving waters. As a result, there will be no perceptible impacts to peak flow or volume.

The Morrison Creek watershed encumbers the remaining land in the growth area, and was the subject of a detailed drainage study prepared by Wood Rogers, Inc on behalf of County DWR. The existing 100-year peak flow exceeds the capacity of the constructed, levee-supported channel – a channel which is at a higher elevation than the surrounding land. To offset these flows, the upstream Aspen 6/Vineyard stripmines, which were excavated on either side of Morrison Creek, included construction of 1,000-foot long weirs to allow spill of peak flow volume into the mined area. The weirs were constructed to attenuate flow in a way that avoids a capacity breach in the channel, and to accommodate downstream flow constraints. There are many individuals downstream that depend on this attenuation, including the City of Sacramento. Development within the old mine area, in its current condition, would be contrary to public safety standards and policies because failure of the channel levee into the approximately 40-foot deep pit would be catastrophic.

Any future master planning proposal within the new growth area will require preparation of a Drainage Master Plan, pursuant to General Plan Policy SA-5. The Drainage Master Plan will be required to demonstrate that all areas planned for development can be removed from a flood hazard area. Compliance with County Ordinances, Improvement Standards, and General Plan Policy will ensure that the Project will not substantially increase the rate or amount of surface runoff in a manner that causes flooding or that exceeds stormwater system capacity; impacts are *less than significant*.

GRANT LINE EAST

Grant Line East is within the Buffalo Creek, Coyote Creek, Deer Creek, and Laguna Creek watersheds. The Buffalo Creek watershed within the area is approximately 235 acres. The County DWR analysis indicates that the impact to this watershed would be nominal, and if needed could be easily attenuated with a detention basin.

The growth area includes approximately 820 acres within the Coyote Creek watershed. Coyote Creek is tributary to Deer Creek. The County DWR analysis indicates that runoff resulting from full development of the watershed could be attenuated by construction of one or more detention basins with a roughly 24 acre-foot volume, combined.

The growth area includes approximately 2,588 acres of land affected by a tributary to the main branch of Deer Creek, and four smaller tributaries summing to approximately 1,712 acres that flow eastward to Deer Creek, for a total of 4,300 acres within the Deer Creek watershed. The County DWR analysis indicates that the 100-year peak flow from the four smaller tributaries could be managed with four minor detention basins of about 7 acre-feet each. The larger tributary to Deer Creek flows into a mapped FEMA floodplain with an estimated existing peak flow of 969 cubic feet per second (cfs). If the watershed is fully developed, the peak flow could increase to approximately 1,692 cfs. The resulting volume in a 100-year storm event would be about 64 acre-feet. Until a Drainage Master Plan for the area is completed, County DWR staff stated that it is not certain to what extent the peak flow and volume should be offset through detention, but it is apparent that creating such detention would be easily achievable.

The growth area includes a portion of the Laguna Creek watershed, which flows toward the Sunridge and Suncreek developments planned in the City of Rancho Cordova. The total land within the growth area is approximately 907 acres. The hydrologic impacts were analyzed as part of the Rancho Cordova Specific Plans for the Sunridge and Suncreek developments. Generally, the floodflow impacts will be mitigated by construction of detention basins. Any future master planning proposal within the growth area will require preparation of a Drainage Master Plan, pursuant to General Plan Policy SA-5. Compliance with County Ordinances, Improvement Standards, and General Plan Policy will ensure that the Project will not substantially increase the rate or amount of surface runoff in a manner that causes flooding or that exceeds stormwater system capacity; impacts are *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: FLOODPLAIN EFFECTS ON THE PROJECT

Used in the term's broadest sense, the floodplain is marked by any event that exceeds the banks of the flooding source. Analyses to determine the area within a floodplain are based upon hydrology and hydraulics. In general, hydrology is used to determine the

amount of water flowing in a flooding source, while hydraulics is used to determine how deep the water will become with a certain amount of flow. The floodway is the central part of the floodplain that carries most of the water flow and has the highest water velocities. In this EIR, the term "floodplain" is used specifically to describe the FEMA 100-year floodplain, which for most flooding sources is the area where development restrictions and insurance requirements apply.

There are two basic kinds of floodplain impacts on a project: non-catastrophic and catastrophic. Non-catastrophic flooding occurs when floodwaters are shallower and may be slower-moving. This type of flooding is usually caused when exceptionally high water overtops a river bank. These types of floods can cause significant damage to property and infrastructure, and cause the loss of life, but these floods can also be monitored and predicted by the flow gauges placed in many of Sacramento County's rivers and creeks. Advance warning can be given to residents, and attempts to stem the flood or protect structures and people can be taken. Catastrophic flooding occurs when floodwaters are deep or fast-moving, and the water may flood an area with little advance warning. This type of flooding is usually caused by the failure of a levee, dam, or other water detention structure.

The CEQA Guidelines significance criteria differentiate between these two flooding types. An impact may be significant if it would cause on-site flooding, or if it would place a structure within a 100-year floodplain (non-catastrophic), but an impact may also be significant if it could result in the substantial loss of life or property (catastrophic). The discussions that follow also make this distinction. The Sacramento County Department of Water Resources indicated that **as a result of Senate Bill 5 (passed in 2007, which requires updates to the California Building Standards Code where flood waters would be at least 3 feet deep during a 200-year flood event)** ~~post-Katrina~~, the financial liability resulting from recovery in communities subjected to catastrophic flooding due to levee failure is, increasingly, being directed to the agency that made the land use decision. That is, *even if an engineer certifies the levee*, it is not clear at this point that the land use agency would be absolved of responsibility. Areas protected from the 100-year floodplain by a levee should be clearly identified, both for the purposes of making informed land use decisions, and so that citizens may know whether it is appropriate to invest in flood insurance. According to County DWR (G. Booth), the United Stated Army Corps of Engineers and County DWR are coordinating a study to map these levee-protected floodplain areas.

Infill and Commercial Corridors

Plate HY-6 and Plate HY-7 depict the floodplain areas within and adjacent to the infill areas and commercial corridors, respectively. The 100-year floodplain is shown in blue on both exhibits, and the commercial corridors are listed on the exhibit by their number rather than their name (the names are on Table HY-3). As shown, there are floodplain areas within some of the identified infill areas and commercial corridors. Table HY-2 identifies the watersheds that contain identified infill parcels, the amount of infill area within the watershed, the amount of infill area within the floodplain, and the percentage

of infill area encumbered by floodplain in that watershed. Table HY-3 identifies the same characteristics for the commercial corridors, but it is organized by commercial corridor first and by watershed second.

As shown in the tables, the infill areas contain approximately 78 acres of floodplain area, which is approximately 6% of the total infill acreage identified. Some specific infill parcels are significantly encumbered by floodplain (in the case of the 1.3 acres of infill in the Natomas Basin, the floodplain covers 100% of the parcel), but in other cases there is no floodplain present in any of the infill areas. There are nine commercial corridors that do not contain any floodplain, while in the remaining corridors less than 10% (and typically less than 5%) of the land is within floodplain. In total, the commercial corridors contain approximately 495 acres of floodplain, which is approximately 3% of the commercial corridor acreage identified.

The presence of these floodplain areas will effect how the commercial corridors and infill areas can develop in the future. For the commercial corridors, any Special Planning Areas, corridor studies, or other master planning activities will need to include an assessment of the floodplain effects on the proposals. Although most of the land within the commercial corridors is already developed, some of the existing structures and infrastructure may not comply with the current development standards related to floodplains, because they were constructed before those requirements went into effect. The Sacramento County Floodplain Management Ordinance requirements apply to "substantial improvements" or repairs, not just to new development. Many of the improvements anticipated in the commercial corridors, such as increases in building sizes or heights and the renovation and rehabilitation of older buildings will be subject to the requirements of the Ordinance. This also applies to all new residential development, thus any development within the residential infill areas will be subject to the Ordinance.

Plate HY-6 Floodplain in Infill Areas

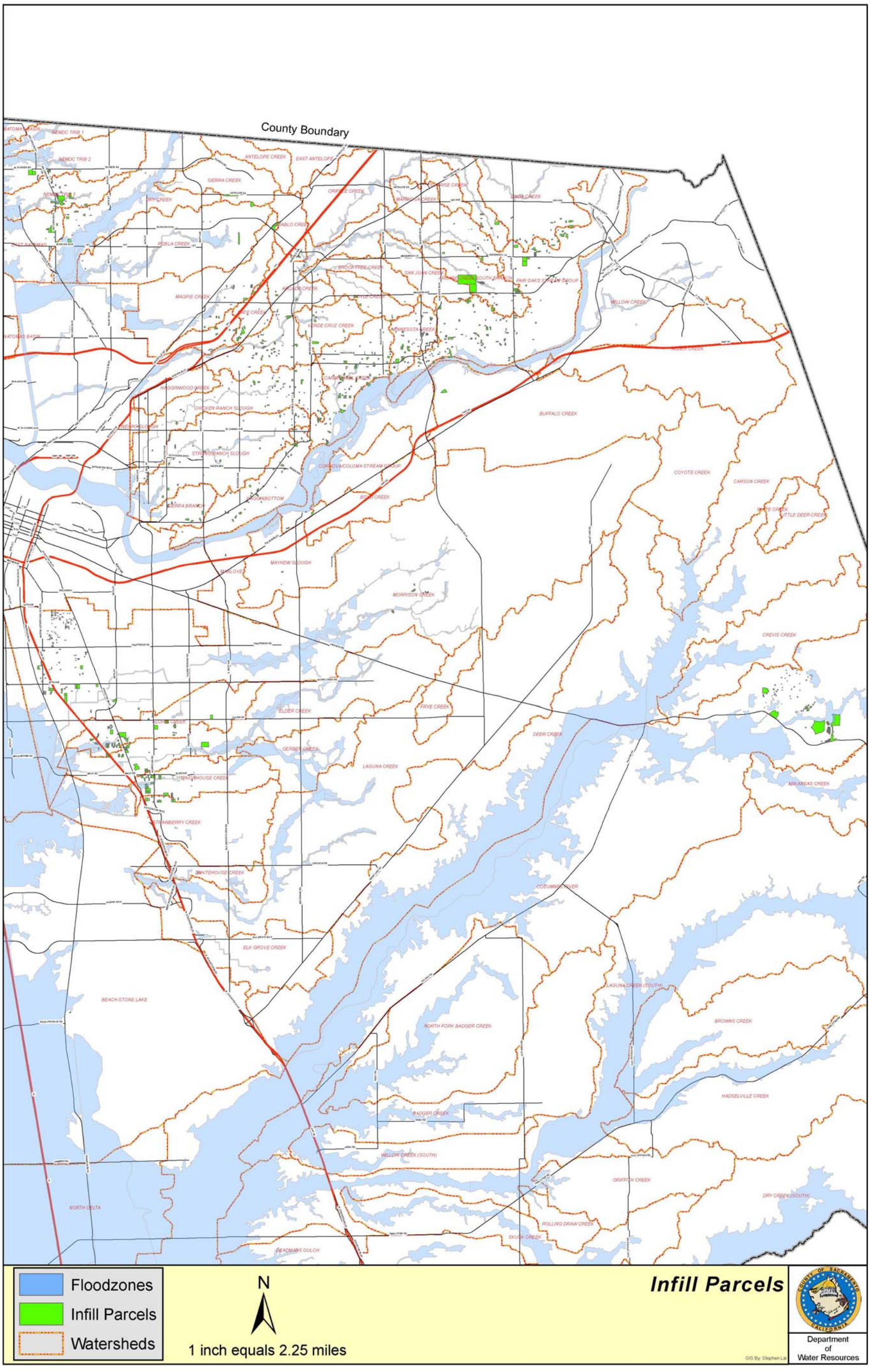


Plate HY-7 Floodplain in Commercial Corridor Areas

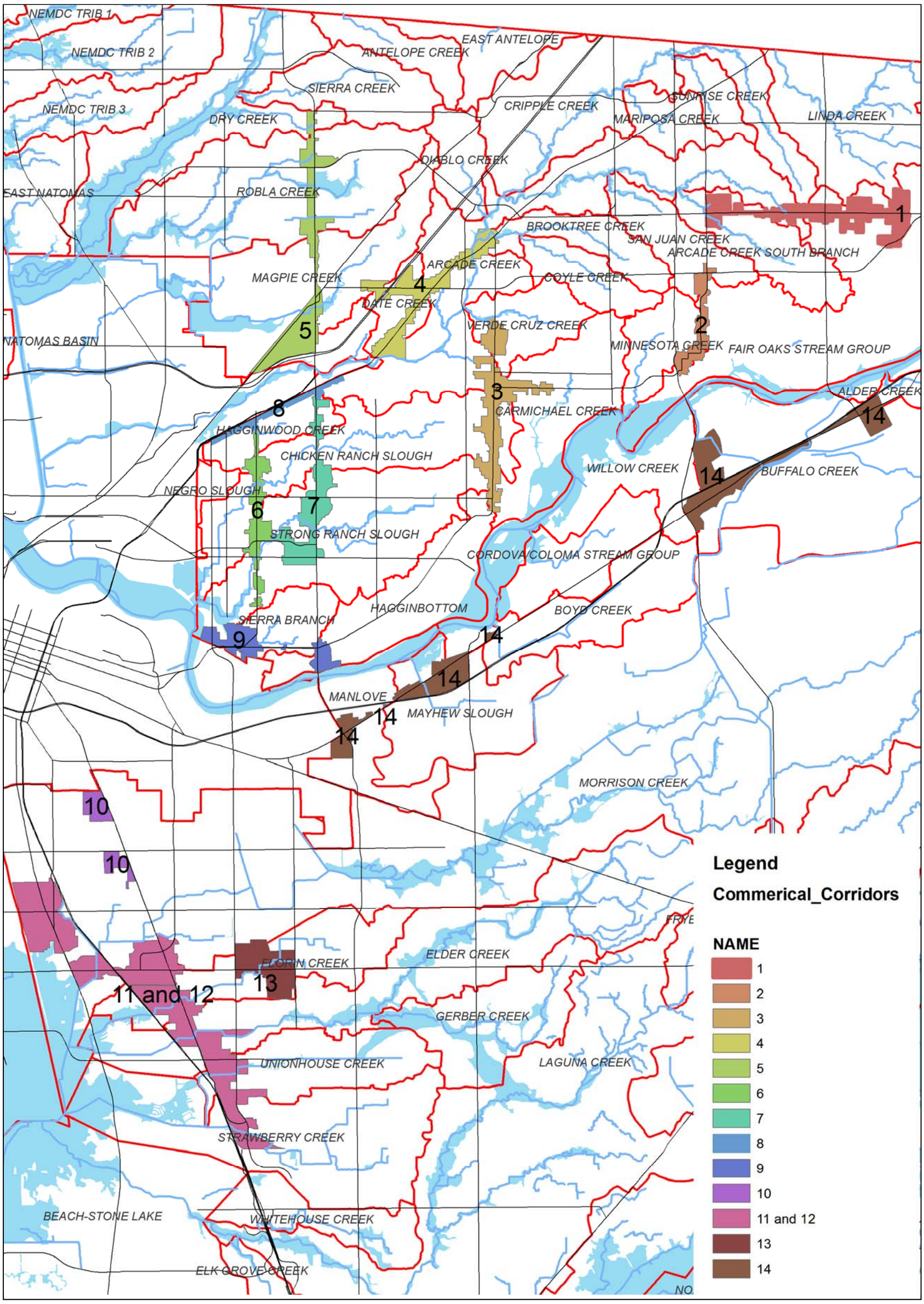


Table HY-2 Proportion of Floodplain within Infill Areas

Watershed	Infill Acreage	Acreage Within Floodplain	% Within Floodplain
Alder Creek	< 0.10	N/P	--
Arcade Creek	52.9	6.90	13%
Arcade Creek South Branch	122	7.90	6%
Beach-Stone Lakes	0.40	N/P	--
Boyd Creek	0.60	N/P	--
Brooktree Creek	1.00	0.40	40%
Buffalo Creek	5.70	N/P	--
Carmichael Creek	71.2	7.40	10%
Chicken Ranch Slough	40.7	0.80	2%
Cosumnes	179	12.5	7%
Coyle Creek	4.80	N/P	--
Cripple Creek	13.7	0.30	2%
Date Creek	19.2	N/P	--
Diablo Creek	4.60	N/P	--
Dry Creek	17.1	5.30	31%
East Natomas	25.5	N/P	--
Elder Creek	48.7	0.10	< 1%
Fair Oaks Stream Group	121	< 0.10	< 1%
Florin Creek	76.8	8.50	11%
Hagginbottom	28.7	N/P	--
Hagginwood Creek	1.40	N/P	--
Linda Creek	16.1	N/P	--
Magpie Creek	19.6	< 0.10	< 1%
Manlove	1.10	N/P	--

Watershed	Infill Acreage	Acreage Within Floodplain	% Within Floodplain
Mayhew Slough	3.00	N/P	--
Minnesota Creek	41.3	0.10	< 1%
Morrison Creek	83.7	< 0.10	< 1%
Natomas Basin	1.30	1.30	100%
Negro Slough	0.30	N/P	--
NEMDC Trib 2	26.4	N/P	--
NEMDC Trib 3	48.2	10.3	21%
Robla Creek	11.8	N/P	--
San Juan Creek	7.90	N/P	--
Sierra Branch	10.4	N/P	--
Sierra Creek	9.11	N/P	--
Strawberry Creek	16.0	N/P	--
Strong Ranch Slough	23.2	0.90	4%
Unionhouse Creek	47.3	8.10	17%
Verde Cruz Creek	14.0	0.40	3%
Willow Creek	13.6	6.50	48%
TOTAL	*1229*	*77.7*	*6%*

NOTE: Numbers are generally reported in three significant figures, and have been rounded to the tenths place, as applicable. N/P indicates "none present".

Table HY-3 Proportion of Floodplain Within Commercial Corridors

Corridor #	Watershed	Acreage Within Watershed	Acreage Within Floodplain	% Within Floodplain
1 – Greenback Lane	Arcade	70.6	1.70	2%
	Arcade South Branch	132	10.2	8%
	Linda	17.8	N/P	0%
	Fair Oaks Stream Group	398	N/P	0%
	TOTAL	*619*	*11.9*	*2%*
2 – Fair Oaks Boulevard East	San Juan	37.0	N/P	0%
	Minnesota	88.1	N/P	0%
	Fair Oaks Stream Group	133	N/P	0%
	TOTAL	*258*	N/P	0%
3 – Fair Oaks Boulevard Central	Arcade	106	N/P	0%
	Carmichael	164	N/P	0%
	Chicken Ranch Slough	264	N/P	0%
	Hagginbottam	7.90	N/P	0%
	Strong Ranch Slough	34.5	N/P	0%
	Verde Cruz	120	1.60	1%
	TOTAL	*696*	*1.60*	*1%*
4 – Auburn Boulevard North	Arcade	255	23.9	9%
	Date	277	N/P	0%
	Brooktree	50.9	8.20	2%
	Magpie	39.8	N/P	0%
	TOTAL	*623*	*32.1*	*5%*

Corridor #	Watershed	Acreage Within Watershed	Acreage Within Floodplain	% Within Floodplain
5 – North Watt	Dry	30.9	N/P	0%
	Robla	259	7.30	3%
	Magpie	240	32.0	13%
	Arcade	191	N/P	0%
	TOTAL	*721*	*39.3*	*5%*
6 – Fulton Avenue	Hagginwood	29.9	N/P	0%
	Chicken Ranch Slough	181	1.70	1%
	Strong Ranch Slough	148	1.60	1%
	TOTAL	*359*	*3.30*	*1%*
7 – Watt Avenue Central	Hagginwood	63.8	N/P	0%
	Chicken Ranch Slough	26.3	0.200	1%
	Strong Ranch Slough	440	9.30	2%
	TOTAL	*530*	*9.50*	*2%*
8 – Auburn Boulevard Central	Hagginwood	113	N/P	0%
	Arcade	36.8	N/P	0%
	TOTAL	*150*	N/P	0%
9 – Fair Oaks Boulevard West	Strong Ranch Slough	77.5	9.00	12%
	Sierra Branch	170	20.6	12%
	Hagginwood	94.3	N/P	0%
	TOTAL	*342*	*29.6*	*9%*
10 - Stockton	Morrison	206	N/P	0%

Corridor #	Watershed	Acreage Within Watershed	Acreage Within Floodplain	% Within Floodplain
Boulevard Central				
11 – Franklin Boulevard	Morrison	140	N/P	0%
12 – Stockton Boulevard South	Morrison	844	22.5	3%
	Florin	427	26.8	6%
	Elder	300	14.6	5%
	Unionhouse	209	40.1	19%
	Strawberry	239	2.00	1%
	TOTAL	*2,020*	*106*	*5%*
13 – Florin Road	Florin	356	14.0	4%
	Morrison	66.7	N/P	0%
	TOTAL	*423*	*14.0*	*4%*
14 – Folsom Boulevard	Buffalo	672	N/P	0%
	Alder	38.1	N/P	0%
	Willow	59	N/P	0%
	Boyd	0.60	N/P	0%
	Manlove	419	N/P	0%
	Mayhew	8.40	N/P	0%
	TOTAL	*1,620*	*N/P*	*0%*
	OVERALL TOTAL	*16,600*	*495*	*3%*

NOTE: Numbers are generally reported in three significant figures, and have been rounded to the tenths place, as applicable. N/P indicates "none present".

Plate HY-8 shows the Commercial Corridors and infill parcels with the local creeks and levees. Most of the smaller creeks within the urbanized areas where the corridors and infill areas are located do not include levees. There are two exceptions located in the

triangle formed by Auburn Boulevard and Garfield Avenue **(known as Cameron Ranch and Evergreen Estates). These levees are intended to protect the residential areas that lie to the south of the creek. The Commercial Corridor to the north and west is not within an area protected from flooding by this levee.** ~~but though a breach of these two levees would result in significant property damage, the flood depths and extent will not be catastrophic or widespread. Furthermore, these are "project" levees that are certified to a 100-year standard.~~ There is also a levee south of 47th Avenue, but **the level of protection provided by this levee is being analyzed by the Army Corps. DWR staff indicate that the data collected thus far indicates that if improvements to this levee in the vicinity of the Commercial Corridors are needed, it is likely to be minor. In any event, a breach of this levee would not result in any catastrophic damage. The flood depths are shallow, and would cause some street and parking lot flooding, but buildings are raised high enough to avoid damage.** ~~this levee is certified to the 200-year event~~. This is not true of the levees along the American River. Breaches in this levee would flood areas nearest the levee at depths that exceed average human height, and within a short span of time. The City of Sacramento in conjunction with the County of Sacramento created flood emergency evacuation plans that include maps of hypothetical flood depths (the source for the above information) which are incorporated by reference and are available online at http://www.msa.saccounty.net/waterresources/stormready/default.asp?page=maps and in hard copy at County Department of Water Resources, 827 7th Street, Room 430.

Though the impact of a levee breach on proposed development areas near the American River would be catastrophic, the risk of such an event is low. The levees along the American River are certified to the 100-year flood elevation by the United States Army Corps of Engineers and have undergone recent and ongoing improvements both to maintain and improve their condition. Even so, the 200-year flood elevation appears to be emerging as the new standard for development in areas with major rivers, where deep flooding is possible. SB 5 was passed in 2007, which requires updates to the California Building Standards Code where flood waters would be at least 3 feet deep during a 200-year flood event. This legislation affects the American and Sacramento Rivers, but changes to the Code will not be in place until January 1, 2010. Maps depicting the 200-year floodplain locations subject to SB 5 are in development, but have not been completed.

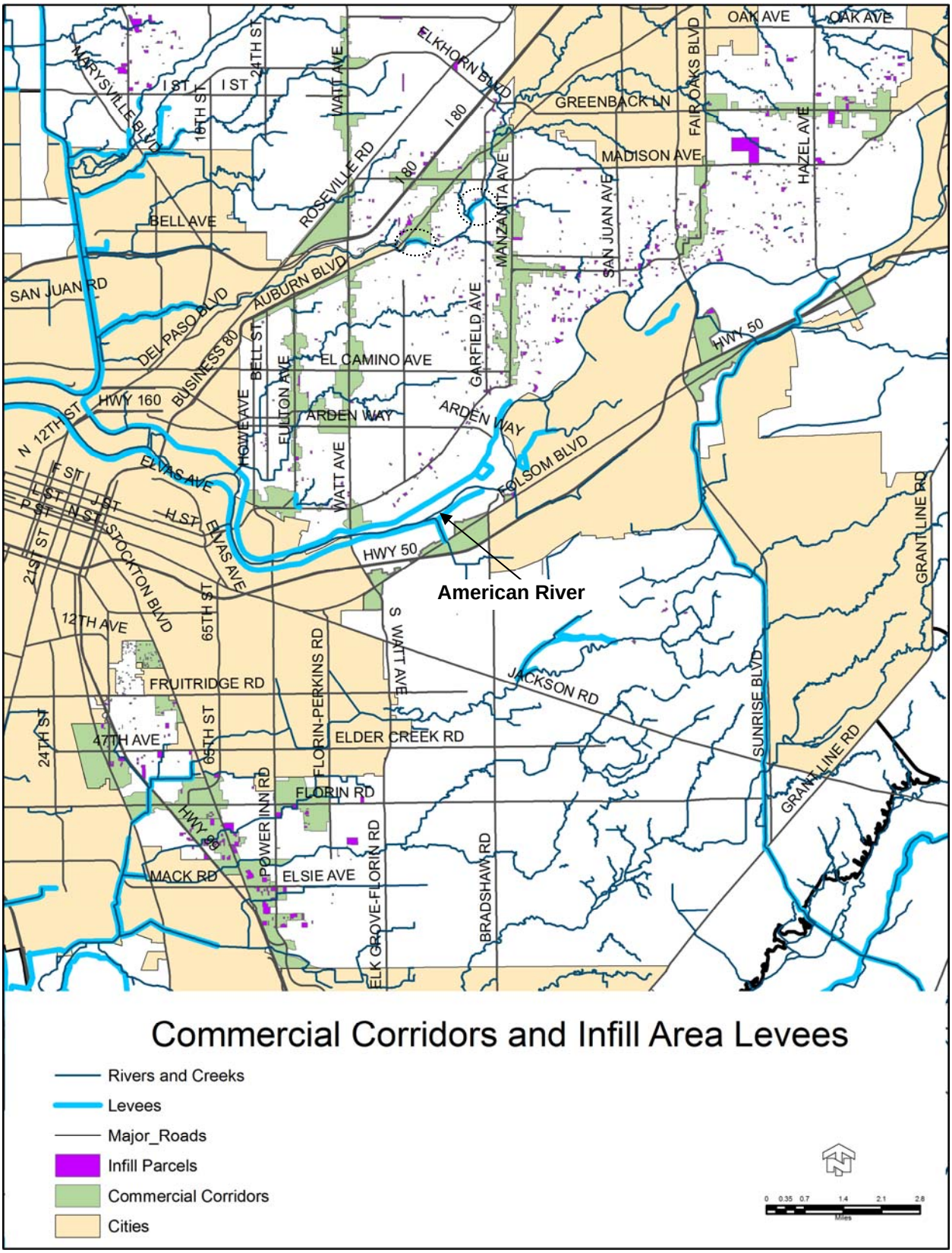
In addition to state legislation, the 200-year flood elevation is recommended in General Plan policy SA-6, which directs the County to participate in 200-year flood protection projects on the American and Sacramento rivers. General Plan policy SA-20 states that any new levee built to reclaim floodplain must be built to the 200-year standard.

Based on existing legislation and proposed and existing General Plan policy, the 200-year floodplain is the more appropriate measure to guide development on the American River, because it is a river with a deep 200-year floodplain. SAFCA is in the midst of improvements to the American River levee system **(in conjunction with the United States Army Corps of Engineers)**, and ultimately plans to provide 200-year protection. Until the improvements are complete, mitigation in this EIR recommends that no new

residential development occur in areas located within the flood hazard maps developed by the City and County of Sacramento.

In combination with mitigation applicable to specific areas adjacent to the American River levees, compliance with the Sacramento County Floodplain Management Ordinance will ensure that no residence is placed within a flood hazard area, and that people or structures will not be exposed to a significant risk involving flooding. Impacts are *less than significant*.

Plate HY-8 Levees – Commercial Corridors and Infill Areas



BUILDOUT OF PLANNED COMMUNITIES

Each of the master planning areas that the Project assumes will reach buildout by 2030, which is Elverta, East Antelope, Vineyard Springs, North Vineyard Station, and Florin Vineyard 'Gap', included a Drainage Master Plan. The Drainage Master Plans for these areas identified the facilities that would be necessary to support full build-out, and the attendant Infrastructure Finance Plans identified how the facilities would be funded. Compliance with these existing Drainage Master Plans, which are hereby incorporated by reference and are available for viewing at the Department of Water Resources (827 7th Street, 4th Floor, Sacramento), will ensure that impacts from floodplains are *less than significant*.

NEW GROWTH AREAS

WEST OF WATT

Unlike the other identified New Growth Areas, not all of West of Watt is contiguous. The West of Watt area is intended to encompass the underdeveloped lands that were once, but are no longer, subject to significant noise associated with the McClellan Air Force Base. As part of their floodplain analysis, Sacramento County DWR identified five segments of the Growth Area, as shown on Plate HY-9. There are three creeks in the vicinity (Dry, Sierra, and Robla Creeks), and the exhibit shows the three creeks, and the acreage of both the segment of the growth area and of the floodplain encumbering it. The acreage is summarized in Table HY-4 (numbering the Growth Area segments from north to south).

As shown in Table HY-4, approximately 5% of the total Growth Area is constrained by floodplain. Most of the floodplain area within West of Watt is attributable to Sierra Creek and Robla Creek, the arms of which extend through the northern and southern ends of the Growth Area. Though only a small portion of the area is constrained by floodplain, the Sacramento County Floodplain Management Ordinance and the Sacramento County Improvement Standards will require that any master planning for the area which includes land use types and densities include a Drainage Master Plan that identifies the flood hazard areas, base flood elevations, a drainage system map (pre- and post-project), and other flood system information and control proposals. As shown on Plate HY-10, the only levees near the West of Watt area are downstream, and will not directly affect development of the area. Compliance with the Sacramento County Floodplain Management Ordinance will ensure that no residence is placed within a flood hazard area, and that people or structures will not be exposed to a significant risk involving flooding. Impacts are *less than significant*.

Table HY-4 Floodplain Areas within the West of Watt area

Growth Area Segment	Acreage Within Segment	Acreage Within Floodplain	% Constrained
1	0.900	0.200	22%
2	20.30	0.300	1.5%
3	359.2	13.20	3.7%
4	239.0	17.30	7.2%
5	9.100	0.000	0.0%
TOTAL	*628.5*	*31.00*	*5.0%*

Plate HY-9 Floodplain within West of Watt

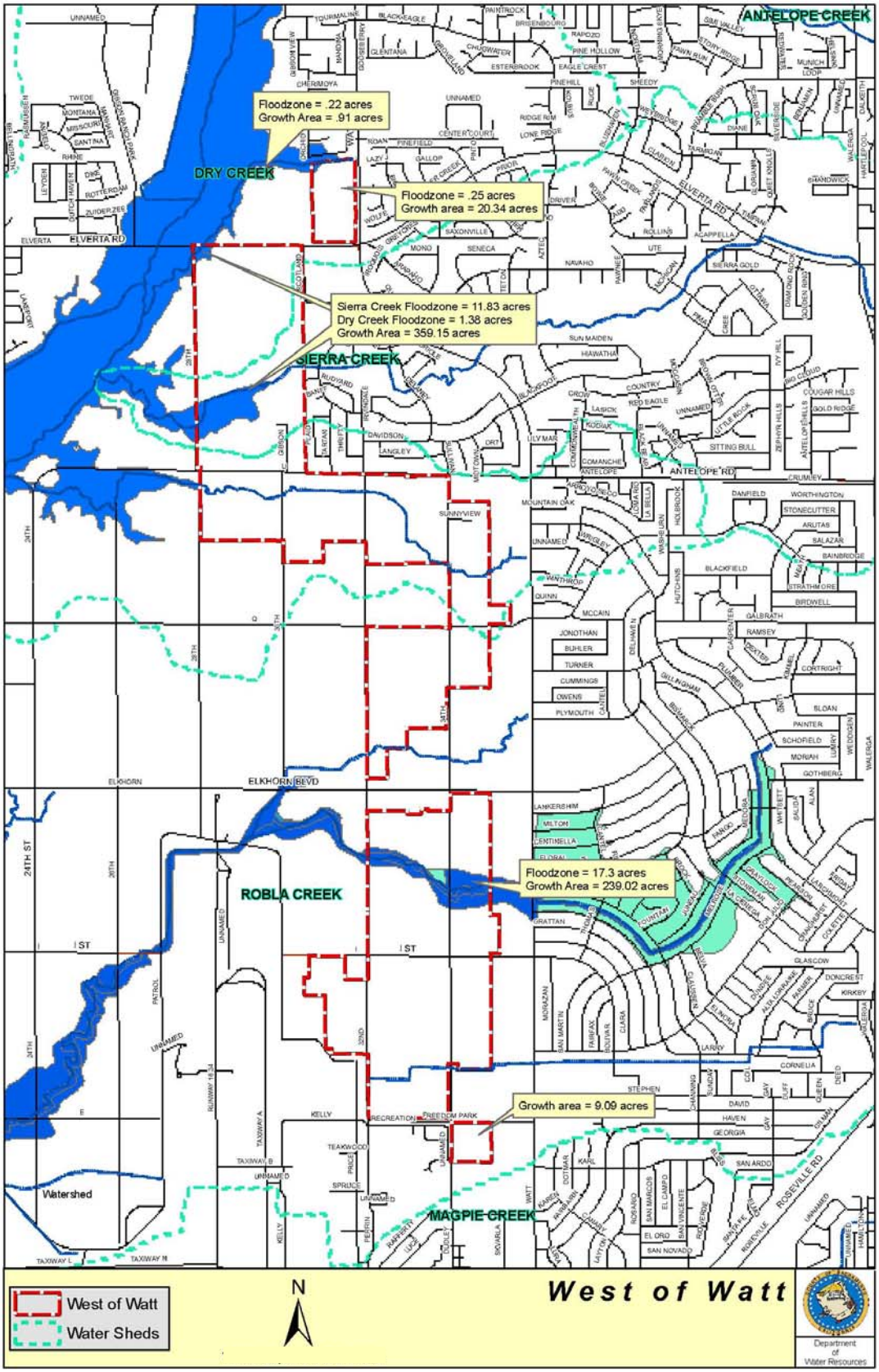
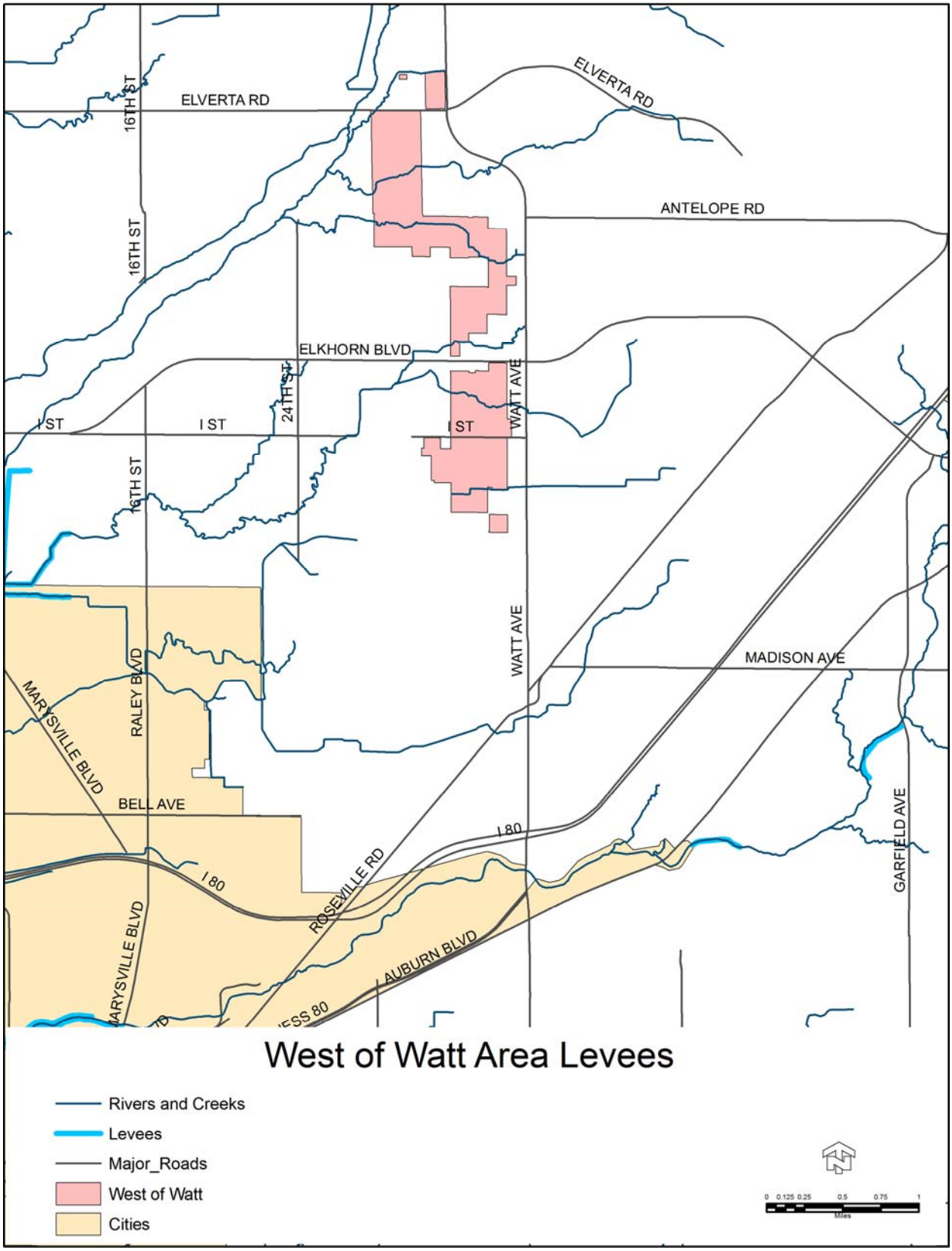


Plate HY-10 Levees – West of Watt



EASTON

Alder Creek's 100-year floodplain extends 50 to 620 feet along the creek within the Easton area. The separate Easton Project does not include any residential, commercial, or office uses within the floodplain – the floodplain would all be preserved as open space. There are also no levees along Alder Creek. It is therefore assumed that expansion of the UPA in this area will not place structures within a flood hazard area, or expose people or structures to a significant risk involving flooding. Impacts are *less than significant*.

JACKSON HIGHWAY CORRIDOR

There are approximately 19 square miles (12,342 acres) in the Jackson Highway Corridor. There are five different watersheds within this area (Plate HY-11). ~~Some creeks have a substantial impact on the project, and some have none.~~ The following table summarizes the five watersheds together with the areas in the current FEMA floodplain. Also shown are mining areas that could also be considered floodplain unless the perched creeks through the mined areas (typically 40 to 50 feet deep) are constructed to meet FEMA levee certification standards, which includes maintenance, monitoring and recertification requirements. The impacted areas comprise both the current and potential floodplains in each watershed.

Plate HY-12 depicts levees within and near the Jackson Highway Corridor. There is a levee system on the northern side of the New Growth Area, but these are uncertified, "non-project" levees associated with mining areas. Though the designs of these levees were engineered, they have not been reviewed and **accredited by FEMA** ~~adopted as federal levees~~. As a result, Plate HY-9 shows these locations as "flooded mining areas" which cannot be developed until improvements are made that remove the locations from the floodplain. This could take the form of ~~Army Corps certification~~ **accreditation** of the existing levees, the placement of fill, or other improvements. **It should also be noted that there are additional levees under construction in the vicinity of these mining areas that would extend this currently-unaccredited levee system.**

As shown in Table HY-5, approximately 29% of the Jackson Highway Corridor is constrained by 100-year floodplain or by mining areas protected by uncertified levees. A significant portion of the lands within the Jackson Highway Corridor are development constrained. The Sacramento County Floodplain Management Ordinance and the Sacramento County Improvement Standards will require that any master planning for the area which includes land use types and densities include a Drainage Master Plan that identifies the flood hazard areas, base flood elevations, a drainage system map pre- and post-project, and other flood system information and control proposals. The Drainage Master Plan could identify modifications to the flood system in the area that would reduce the floodplain extent, and increase the developable area. Compliance with the Sacramento County Floodplain Management Ordinance will ensure that no residence is placed within a flood hazard area, and that people or structures will not be exposed to a significant risk involving flooding. Impacts are *less than significant*.

Table HY-5 Floodplain Areas within the Jackson Highway Corridor

Watershed	Floodplain Area	Mining Area	Total Constrained Area[1]	Watershed Area	% Constrained
Morrison	1,029	1,447	2,476	5,079	49%
Elder	380	570	950	4,162	23%
Gerber	44	0	44	619	7.1%
Frye	0	0	0	963	0.0%
Laguna	0	27	27	1,347	2.0%
TOTALS	*1,453*	*230*	*3,497*	*12,170*	*29%*

NOTE: all areas are in acres

1. Floodplain area plus mining area

Plate HY-11 Floodplain within the Jackson Highway Corridor

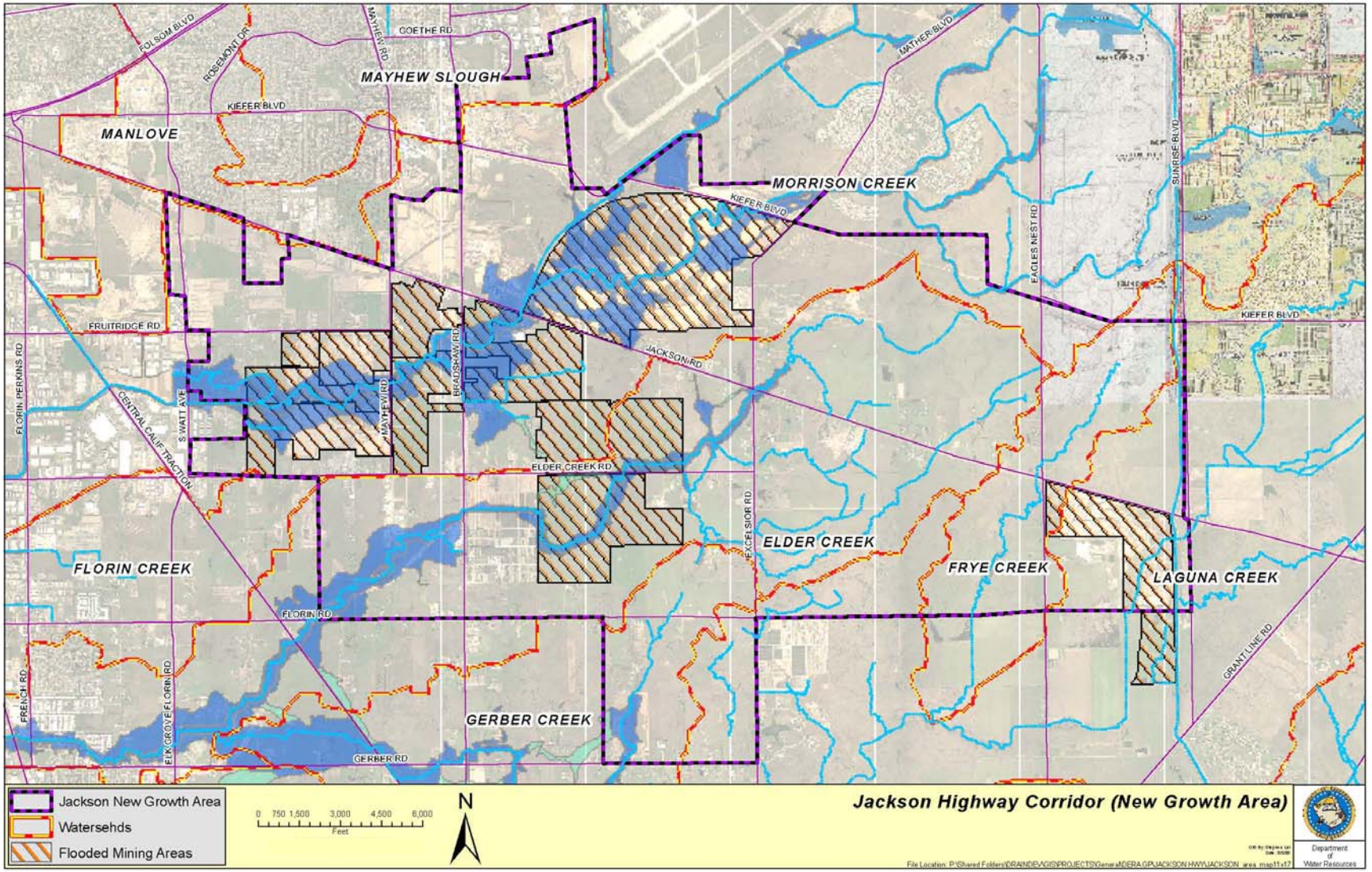
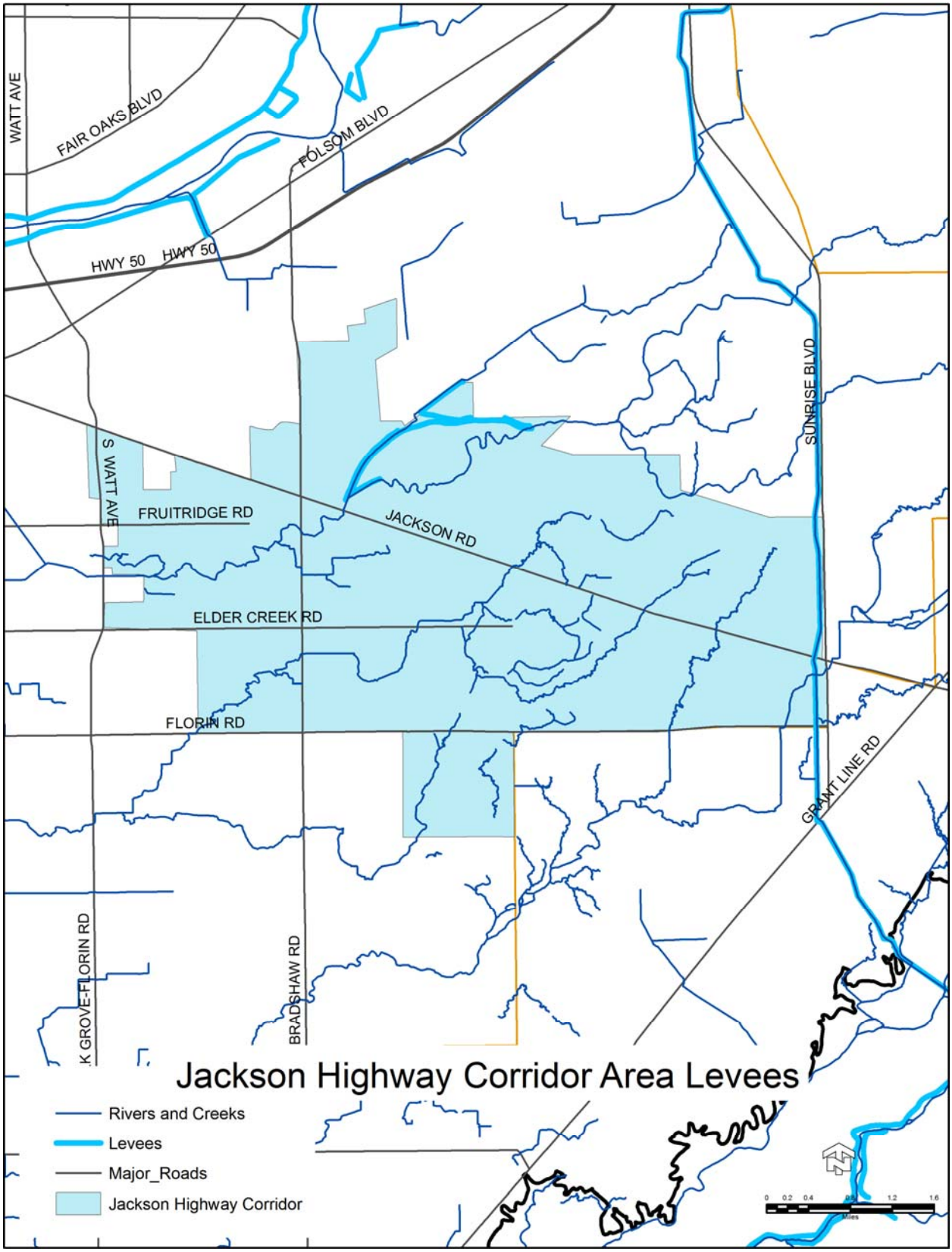


Plate HY-12 Levees – Jackson Highway Corridor



GRANT LINE EAST

This growth area comprises 8,147 acres in seven different watersheds as shown on Plate HY-13 and Table HY-6. The area is characterized by hilly terrain with creeks, swales and wetlands interspersed within the low areas. There are 1,418 acres of surface mining and/or M2 zoning in the northern portion of this growth area that, like the Jackson Highway Corridor mining areas, cannot be redeveloped with other uses until work has been done to ensure that the areas will be protected from the 100-year flood or 200-year flood. The mining areas in the Grant Line East area differ from those along the Jackson Highway Corridor in that they are in the upper parts of the watersheds and the flows in the creeks there are considerably less. As shown on Plate HY-14, there are levees downstream of the Grant Line East area (particularly along the Cosumnes River), but none within or upstream of the New Growth Area. This proposed growth area is not subject to substantial risk due to levee failure.

Federal floodplains have been mapped for Deer Creek and some tributaries, which flow along the southeastern boundary of the growth area, but no federal or local floodplains have been mapped within the Grant Line East growth area because the area is undeveloped. However, the Sacramento County Floodplain Management Ordinance and the Sacramento County Improvement Standards will require that any master planning for the area which includes land use types and densities include a Drainage Master Plan that identifies the flood hazard areas, base flood elevations, a drainage system map (pre- and post-project), and other flood system information and control proposals. As shown, at least 18% of the Growth Area is constrained by flood hazards **(associated with mined areas)**. Compliance with the Sacramento County Floodplain Management Ordinance will ensure that no residence is placed within a flood hazard area, and that people or structures will not be exposed to a significant risk involving flooding. Impacts are *less than significant*.

Table HY-6 Floodplain Areas within the Grant Line East area

Watershed	Watershed Area (acres)	Mining (acres)	% Constrained
Deer Creek Tributary	2,470	59	2.4%
Deer Creek	666	0	0%
Carson Creek	876	0	0%
Coyote Creek	952	287	30%
Morrison Creek	2,177	1,142	52%
Buffalo Creek	77	0	0%
Laguna Creek	929	0	0%
TOTAL	*8,147*	*1,488*	*18%*

NOTE: The table does not include local floodplains, because these have not been mapped. Thus, the constrained area shown should be treated as a minimum.

Plate HY-13 Floodplain within Grant Line East

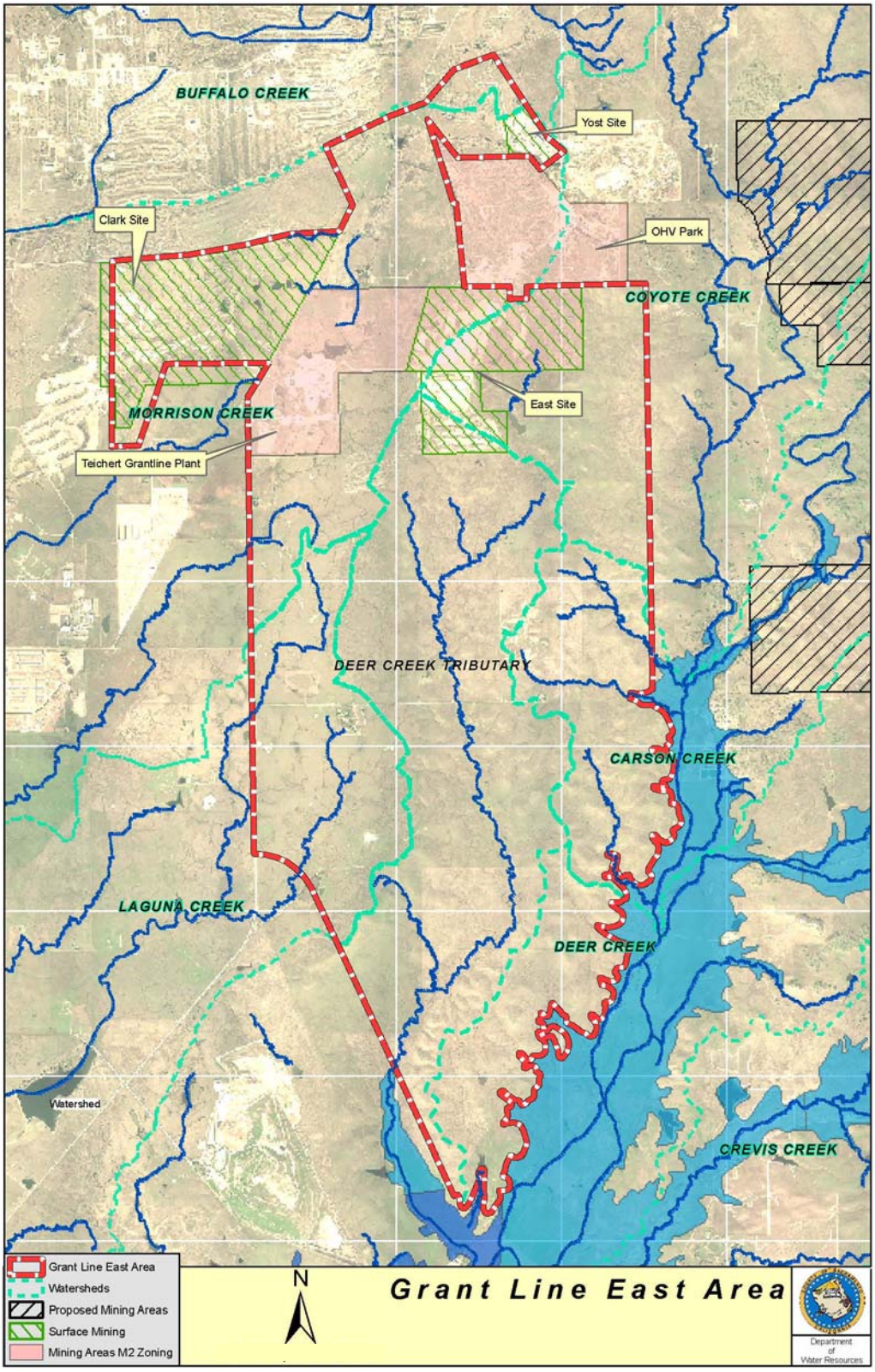
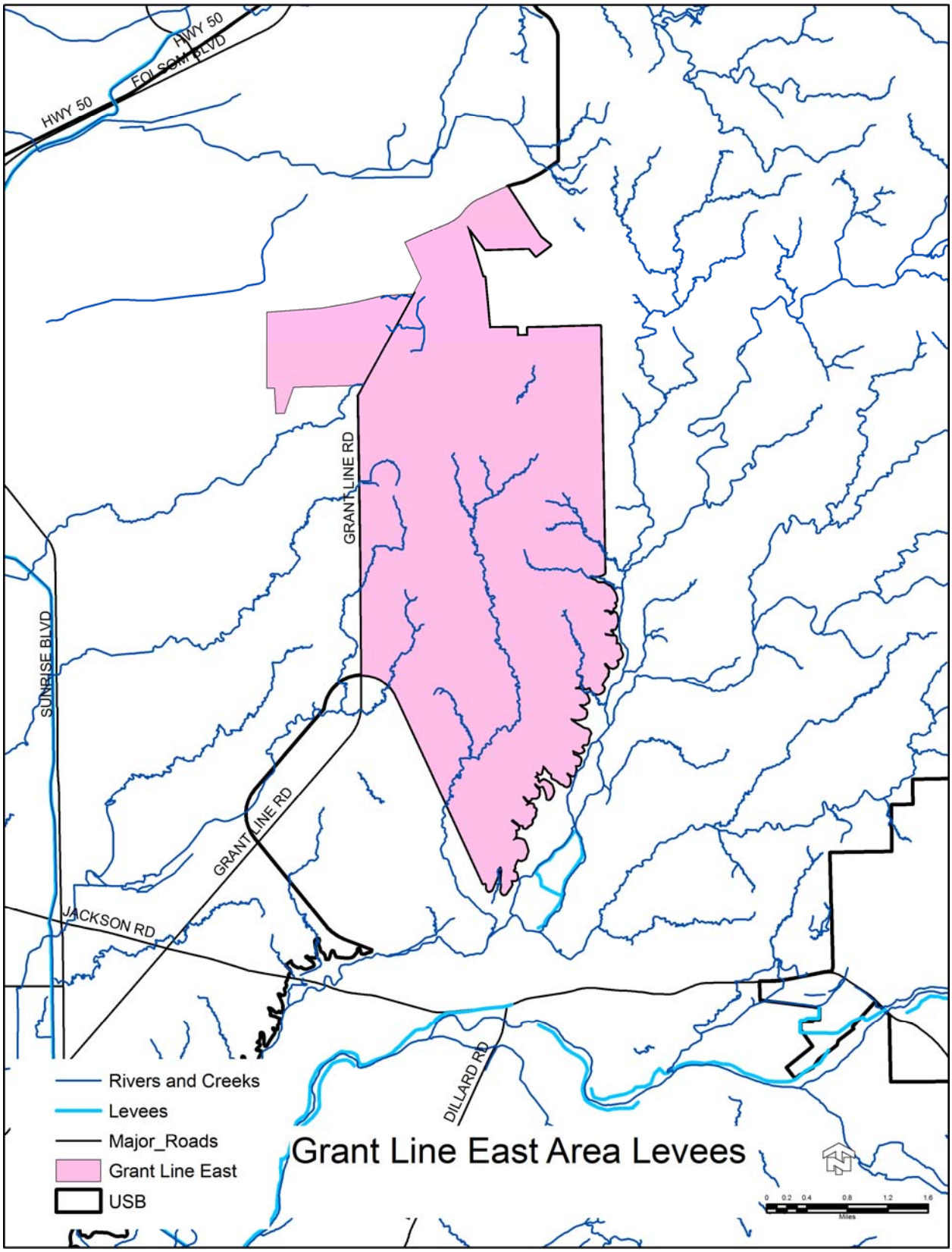


Plate HY-14 Levees – Grant Line East



MITIGATION MEASURES:

HY-1. The following policy language shall be added to the General Plan Safety Element: **Discretionary r**esidential development within any area identified on the City/County of Sacramento Flood Emergency Evacuation Plan as being inundated by at least 3 feet of water shall be prohibited until the American River levee system is certified to a 200-year standard unless:

A. It is demonstrated to the satisfaction of the Sacramento County Department of Water Resources that the project site is outside the 200-year floodplain.

OR

B. The need for this policy is superseded by implementation of legislation or other policy related to this issue, as determined by the Sacramento County Department of Water Resources.

IMPACT: PROJECT EFFECTS ON WATER QUALITY

Pollutants entering waterways are generally categorized by regulatory agencies as either point or nonpoint discharge. A point source discharge is one that comes from a specific location, such as a wastewater treatment plant outfall. A nonpoint source discharge is one that comes from multiple locations over a wide land area, and is the type of pollution that occurs as a result of land use activities. Rainwater or irrigation runoff flows over agricultural fields, streets, parking lots, backyards, and other areas, picking up sediment, pesticides, fertilizers, heavy metals, oils, and other pollutants before ultimately flowing into a waterway. It is nonpoint pollution that the proposed Project has the potential to generate.

Nonpoint source pollution may be generated during construction and after a site is operational. In the analysis below there is an overall section on construction impacts and an overall section on operational impacts, because many potential impacts related to both issues are the same regardless of the growth strategy. Separate analysis for each growth strategy highlights the areas where impacts may be different.

CONSTRUCTION IMPACTS

The General Plan Update would result in construction of residential, commercial, and industrial buildings, along with associated streets and other paved areas. Water quality impacts could occur during construction from increased soil erosion and sedimentation due to clearing of vegetation, alteration of drainages, and grading. Construction also involves solvents, paints, concrete, and other materials that have the potential to contact and affect runoff from construction sites.

The current Sacramento County Stormwater Ordinance (Sacramento County Code 15.12) prohibits the discharge of unauthorized non-stormwater to the County's stormwater conveyance system and local creeks. Non-stormwater refers to the

prohibition on disposing of extra paint, oils, or other such materials into the stormwater system, as well as wash-water. The Stormwater Ordinance applies to all private and public projects in the County, regardless of size or land use type. In addition, the Land Grading and Erosion Control Ordinance (Sacramento County Code 16.44) requires private construction sites disturbing one or more acres or moving 350 cubic yards or more of earthen material to obtain a grading permit. To obtain a grading permit, project proponents must prepare and submit for approval an Erosion and Sediment Control Plan describing erosion and sediment control best management practices (BMPs) that will be implemented during construction to prevent sediment from leaving the site and entering the County's storm drain system or local receiving waters.

In addition to complying with the County's ordinances and requirements, construction sites disturbing one or more acres are required to comply with the State's General Stormwater Permit for Construction Activities. The Construction General Permit is issued by the State Water Resources Control Board and enforced by the Regional Board. Coverage is obtained by submitting a Notice of Intent (NOI) to the State Board prior to construction. The General Permit requires preparation and implementation of a site-specific Stormwater Pollution Prevention Plan (SWPPP) that must be kept on site at all times for review by the State inspector. Applicable projects applying for a County grading permit must show proof that an NOI has been filed and must submit a copy of the SWPPP.

During the wet season (October 1 – April 30), projects must include an effective combination of erosion, sediment, and other pollution control BMPs in compliance with the County ordinances and the State's Construction General Permit. During the rest of the year, typically erosion controls are not required, except in the case of predicted rain. Examples of erosion controls include: stabilized construction entrances, tackified mulch, 3-step hydroseeding, spray-on soil stabilizers, and anchored blankets. Sediment controls help to filter sediment out of runoff before it reaches the storm drains and local waterways. Examples include rock bags to protect storm drain inlets, staked or weighted straw wattles/fiber rolls, and silt fences.

In addition to erosion and sediment controls, the project must have BMPs in place to keep other construction-related wastes and pollutants out of the storm drains. Such practices include, but are not limited to: filtering water from dewatering operations, providing proper washout areas for concrete trucks and stucco/paint contractors, containing wastes, managing portable toilets properly, and dry sweeping instead of washing down dirty pavement.

Operational Impacts (Post-Construction Impacts)

New development proposed by the General Plan Update may result in the use of substances that could pollute waterways if not regulated. Vehicles deposit heavy metals, oils, and other substances onto roadways, parking lots, and driveways; residents wash their cars in streets and driveways, and the water picks up soaps, waxes, and the dirt, oils, and heavy metals from the cars; and people maintaining landscaping areas use pesticides and fertilizers. Water carries these and other

pollutants into storm drains, where the water flows without treatment directly into the streams that provide drinking water, recreation, and wildlife habitat. This runoff could increase pollutant loads to such an extent that the waterway becomes impaired. Water temperatures can be increased, which effects the health of many organisms that live in the creeks. Even the nutrients in fertilizers can cause water quality problems, because they promote blooms of algae. Increases in discharge amounts or velocity have the potential to greatly accelerate downstream erosion and impair stream habitat in natural drainage systems. These impacts must be mitigated by requiring appropriate runoff reduction and pollution prevention controls to minimize runoff and keep runoff clean for the life of the project.

It is critical that stormwater runoff be treated, in particular for the first flush that carries the greatest concentration. Typically, the first flush is the first ½ ~~to one~~ inch of rain after an extended dry period; it carries the accumulation of many weeks or months of pollutants that have been deposited onto the soils, pavement, and plants. It is impractical to treat all stormwater run-off during large storm events, but the use of standard water quality treatment methods can treat the first inch of run-off, which is highly beneficial and can avoid significant impacts to water quality.

In some cases the stormwater must be cleaned with various types and sizes of water pollution filters or municipal treatment plants, particularly in the case of industrial and commercial facilities. The use of Best Management Practices (BMPs) can be highly effective in controlling pollution at its source before it enters the storm drain system and local streams. BMPs have been demonstrated to effectively protect surface waters and meet the requirements of the Clean Water Act and Porter-Cologne Water Quality Act. In order to reduce the amount of polluted water that enters storm drains, local streams and rivers, the County has several requirements that are triggered during the development process.

The County requires that projects include source and/or treatment control measures on selected new development and redevelopment projects. Source control BMPs are intended to keep pollutants from contacting site runoff. Examples include “No Dumping – Drains to Creek/River” stencils/stamps on storm drain inlets to educate the public, and providing roofs over areas likely to contain pollutants, so that rainfall does not contact the pollutants. Treatment control measures are intended to remove pollutants that have already been mobilized in runoff. Examples include vegetated swales and water quality detention basins. These facilities slow water down and allow sediments and pollutants to settle out prior to discharge to receiving waters.

The use of “low impact development” techniques reduces the amount of imperviousness on the site, which reduces the volume of runoff and can reduce the size/cost of stormwater quality treatment required. Examples of low impact development techniques include pervious pavement and bioretention facilities.

New development will be required to treat urban runoff using the BMPs required by the current standard defined in the *Stormwater Quality Design Manual for the Sacramento and South Placer Regions, 2007* and subsequent editions in the years to come. The

BMPs include a number of options for treatment including simple grassy swales and rain gardens, to more complex systems that use cisterns, pumps, and sand filters. There are sometimes site constraints that dictate the type of treatment that is most appropriate. Early in the design phase, it is recommended that the engineers work with the Department of Water Resources Water Quality Division to identify the requirements and options for treatment. Through early consultation, it is often the case that more options are available than later in the design phase when space is limited by other planned developments and expensive underground systems are one of the only choices left available without re-engineering the site layout.

Updates and background on the County's requirements for post-construction stormwater quality treatment controls, along with several downloadable publications, can be found at the following websites:

http://www.msa.saccounty.net/sactostormwater/SSQP/development.asp

http://www.sactostormwater.org/newdevelopment.asp

Infill and Commercial Corridors

This growth strategy targets areas that are already urbanized, and are contributing substantial amounts of urban pollutants into local waterways. The list below contains creeks that may be affected by this growth strategy that are already on the 303(d) list as impaired, and the pollutants for which the creek is listed.

Table HY-7 Impaired Waterways Affected by Infill and Commercial Corridors

Waterway Name	Pollutant	Potential Sources
American River	mercury	resource extraction
Arcade Creek	chlorpyrifos, copper, diazinon	urban runoff, agriculture
Chicken Ranch Slough	chlorpyrifos	urban runoff
Morrison Creek	diazinon	urban runoff, agriculture
NEMDEC	diazinon, PCBs	urban runoff, agriculture, industrial point sources
Strong Ranch Slough	chlorpyrifos, diazinon	urban runoff, agriculture
NOTES: *diazinon* is a common ingredient in pesticides, *chlorpyrifos* is a common ingredient in agricultural insecticides, *copper* is used in agriculture to control funguses and correct copper deficiency in livestock, *mercury* was used in the mining and recovery of gold, and *PCBs* have been used as coolants, in paints, adhesives, and a wide array of other products.		

Neither the infill nor the Commercial Corridors strategies will involve industrial development, resource extraction (mining), or agriculture, so this aspect of the Project

does not have the potential to introduce PCBs into the Natomas East Main Drain (NEMDEC), mercury into the American River, or copper into Arcade Creek. These growth strategies do have the potential to introduce diazinon and chlorpyrifos into Arcade Creek, Chicken Ranch Slough, Morrison Creek, the NEMDEC, and Strong Ranch Slough.

In the case of the Commercial Corridors, it is possible that existing nonpoint source pollution will be decreased by Project implementation. The Commercial Corridors will involve extensive redevelopment and updating of aging infrastructure, which will include the introduction of current water quality protection technologies and methodologies within areas that currently have little or no treatment of runoff. Infill, on the other hand, consists of development of land that is vacant or does not contain as much developed area as current zoning allows, so it will not result in the replacement of aging infrastructure with new. Furthermore, the existing Low Impact Development standards do not apply to smaller residential projects on less than 20 acres of land.

The requirements to install post construction Best Management Practices are triggered when a project surpasses certain thresholds outlined in the *Stormwater Quality Design Manual.* Single-family residential projects on less than 20 acres are not required to reduce run-off or install treatment or source control BMPs. Road projects that do not increase the impervious surface area by more than 5 acres are not required to install on-site treatment. All of the infill parcels identified are less than 20 acres, and most of the roadway improvements in these areas will involve less than 5 acres. Increasing density, small infill development projects, and widening existing roads in the exiting urban areas has the potential to result in cumulatively significant impacts to the water quality of already impacted urban streams such as Arcade Creek. Any net increase of pollutants to an impaired waterway is a significant impact.

The impact could be mitigated to some degree if the Stormwater Quality Design Manual was revised to capture the impacts of smaller infill projects. The treatment controls do not have to be costly to reduce incremental impacts. Homes can use rain chains and rain gardens to reduce roof run-off. These features can be incorporated in the home design and landscaping to protect the long-term viability of the watershed. Public streets often contain landscape strips that can serve the dual purpose of treating stormwater if designed properly. However, even with the adoption of lower development thresholds for the Low Impact Development standards, it is infeasible to expect that there will be zero net increase in pollution as a result of infill development. Any net increase to an impaired waterway is a significant impact. Though impacts of the Commercial Corridors strategy may be to decrease existing polluted runoff, the infill strategy will result in a net increase of polluted runoff to impaired waterways. Impacts related to water quality are *significant and unavoidable*.

Buildout of Planned Communities

All of the planned communities included separate environmental analysis, and included Infrastructure Master Plans. These Infrastructure Master Plans included water quality treatment basins and other water quality treatment and conveyance infrastructure to

help offset development impacts. As individual development projects are proposed, the County Stormwater Ordinance and Low Impact Development Standards will apply, to further reduce the introduction of pollutants on a site-specific level. The analyses of the various planned communities concluded that implementation of County ordinances and other regulations would ensure that impacts related to water quality would be *less than significant*.

New Growth Areas

West of Watt

The West of Watt Area is minimally developed, but is surrounded by developed areas and bracketed by major roadways. With this existing surrounding development, local creeks are already affected by urban nonpoint source pollution. However, none of the creeks affected by this growth area are on the 303(d) list of impaired waterways. Development of the West of Watt area with intensive mixed use, residential, and commercial buildings will introduce additional urban pollutants. However, the Low Impact Development Standards will apply to development of this area, which will minimize polluted runoff. Compliance with the County Stormwater Ordinance, implementation of Low Impact Development Standards and construction runoff control measures will ensure that development of West of Watt will not alter the course of local waterways in a manner that results in substantial erosion or siltation, and will not result in substantial increases to polluted runoff; impacts are *less than significant*.

Easton

The Easton site is undeveloped area with a landform that mostly consists of dredge tailings. With no existing development, existing runoff of typical urban pollutants from the site is negligible. The Environmental Impact Report for the Easton project determined that development of the site would have the potential to introduce common urban pollutants into local creeks and that the increased volume of runoff has the potential to cause substantial erosion along Alder Creek (which would introduce sediment). Implementation of Best Management Practices, Low Impact Development Measures, and runoff control measures during each development phase were found to ensure that degradation of surface water quality and increases to waterway erosion were reduced to *less than significant* levels.

Jackson Highway Corridor

The Jackson Highway Corridor is minimally developed, with large areas of agricultural use, some agricultural-residential areas with large parcels, and some commercial properties. These uses do contribute common urban and agricultural pollutants into the local waterways. As a result of existing nonpoint source pollution, both Elder Creek and Morrison Creek are on the 303(d) listing of impaired waterways for chlorpyrifos and diazinon. Development of this 12,000-acre area will result in a net increase in polluted runoff. Though a certain proportion of this impact will be offset by application of the Low

Impact Development Standards and other regulations, achieving no net increase is infeasible. Development of the Jackson Highway Corridor will result in a net increase of pollutants to two impaired waterways, and impacts related to water quality are *significant and unavoidable*.

GRANT LINE EAST

The Grant Line East area is undeveloped grazing land, which ensures that common urban pollutants are not currently being discharged into local waterways. In addition, unlike other types of agricultural activities, grazing land does not require the application of pesticides or other potential pollutants. Grazing animals on the land does introduce nutrients from livestock manure and sediment can also be introduced as a result of large livestock trampling creek bank areas and eating the vegetation that helps to stabilize the banks of the creeks. Though there are existing sources of pollution in this area, the sources are relatively minor, and neither Deer Creek nor any of the tributaries within the New Growth Area are on the 303(d) list as an impaired waterway.

Development of the 8,000-acre Grant Line East area will introduce substantial new sources of polluted runoff. However, it will not result in a net increase of pollution to an impaired waterway. Compliance with the County Stormwater Ordinance, implementation of Low Impact Development Standards and construction runoff control measures will ensure that development of Grant Line East will not alter the course of local waterways in a manner that results in substantial erosion or siltation, and will not result in substantial increases to polluted runoff; impacts are *less than significant*.

MITIGATION MEASURES:

HY-2. The following language shall be added to the General Plan Conservation Element, Surface Water Quality section, Implementation Measures: Develop appropriate stormwater treatment measures to apply to small development and redevelopment projects to incorporate into the *Stormwater Quality Design Manual.*

NO PROJECT ALTERNATIVE

IMPACT: EFFECTS ON FLOODPLAINS

The No Project Alternative would include development within vacant and underutilized parcels within the existing urbanized areas and buildout of existing master planned communities. These two development strategies are also part of the Project, and are discussed in the impact sections above – readers should refer to the “Impact: Project Effects on Floodplains” section, “Infill and Commercial Corridors” and “Buildout of Planned Communities” sections. The analysis concluded that compliance with existing Drainage Master Plans for the planned communities, and compliance with the

Floodplain Management Ordinance, will ensure that impacts on floodplains are *less than significant*.

IMPACT: FLOODPLAIN EFFECTS ON THE NO PROJECT ALTERNATIVE

Some of the infill parcels and areas within the planned communities are within existing floodplain areas. Readers should refer to the "Impact: Floodplain Effects on the Project" section, "Infill and Commercial Corridors" and "Buildout of Planned Communities" sections. The analyses conclude that compliance with the Sacramento County Floodplain Management Ordinance will ensure that no residence is placed within a flood hazard area, and that people or structures will not be exposed to a significant risk involving flooding. Impacts are *less than significant*. Note that the mitigation included for the Project is not necessary for the No Project, because the redevelopment Commercial Corridors are the areas where substantial numbers of new residential development could be constructed within the influence of the American River levees – the No Project does not include these Commercial Corridors.

IMPACT: EFFECTS ON WATER QUALITY

The No Project Alternative would involve development within a portion of the Grant Line East area, infill areas, Easton, and of the planned communities. As discussed in the analysis for the Project, all of these will result in less than significant impacts, except for development of infill, where impacts are significant and unavoidable. Though the total net increase of pollutants associated with the No Project Alternative would be less than the increase associated with the Project, the Alternative still involves a *significant and unavoidable* impact to water quality.

REMOVE GRANT LINE EAST ALTERNATIVE

IMPACT: EFFECTS ON FLOODPLAINS

The impacts of this Alternative are identical to those described for the Project, except that the sections describing impacts related to the Grant Line East area do not apply. As stated for the proposed Project, any future master planning proposal within new growth areas will require preparation of a Drainage Master Plan, pursuant to General Plan Policy SA-5. The analysis concludes that compliance with County Ordinances, Improvement Standards, and General Plan Policy will ensure that impacts are *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: FLOODPLAIN EFFECTS ON THE ALTERNATIVE

Floodplain effects on the Remove Grant Line East Alternative are identical to those described for the Project, except that the discussions for the Grant Line East area do not apply. The analyses conclude that compliance with the Sacramento County Floodplain Management Ordinance will ensure that no residence is placed within a flood hazard area, and that people or structures will not be exposed to a significant risk involving flooding. Impacts are *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: EFFECTS ON WATER QUALITY

Water quality effects of the Remove Grant Line East Alternative are identical to those described for the Project, except that the discussions for the Grant Line East area do not apply. Though the removal of Grant Line East does remove a source of pollution, it does not affect the significance determination, because the analysis for the Project indicates that the impacts of developing the Grant Line East area are less than significant. The analyses conclude that compliance with the Sacramento County Floodplain Management Ordinance will reduce impacts, but that the there will nonetheless be a net increase of polluted runoff into impaired waterways; impacts are *significant and unavoidable*.

MITIGATION MEASURES:

See HY-2.

FOCUSED GROWTH ALTERNATIVE

IMPACT: EFFECTS ON FLOODPLAINS

The Focused Growth Alternative impacts are similar to those described for the Project. This Alternative does not include the Grant Line East New Growth Area, so that portion of the discussion would not apply, but the discussions of infill and planned communities would apply, and be the same. The principal difference is within the Jackson Highway Corridor New Growth Area, which this alternative reduces in size so that the area stops at Excelsior Road.

The analysis of the proposed Project by DWR was based on “full build-out” of the Jackson Highway Corridor. What this means is that DWR assumes that a percentage of the developable area will be altered to impervious surfaces, and these percentages used by DWR are standardized. For instance, all low density residential development is

assumed to have the same average percentage of impervious surface area per acre of land. Therefore, even though the Focused Growth Alternative would be more dense, the Alternative will still include the same amounts of low density residential, and other uses. That being the case, the same discussions about how much water detention may be required for the Project new growth area, also apply to this Alternative.

As discussed in the section on Project impacts, any future master planning proposal within the growth area will require preparation of a Drainage Master Plan, pursuant to General Plan Policy SA-5. Compliance with mitigation, County Ordinances, Improvement Standards, and General Plan Policy will ensure that impacts are *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: FLOODPLAIN EFFECTS ON THE ALTERNATIVE

The approximately 4,000-acre area of the Jackson Highway Corridor New Growth Area that would be removed under this Alternative only includes 27 acres that is constrained. Most of the land constrained by floodplains and mining are west of Excelsior Road. The effect of removing such a large amount of unconstrained land is that while the Project Jackson Highway Corridor includes an average of 29% of constrained land, the Focused Growth Jackson Highway Corridor includes an average of 43% constrained land. As with the Project, the Drainage Master Plan that will be required for development in this area could identify modifications to the flood system in the area that would reduce the floodplain extent, and increase the developable area. Even so, the likely effect of this Alternative will be a heightened need for compact development and increased average densities when compared with the Project. Compliance with the Sacramento County Floodplain Management Ordinance and with mitigation will ensure that no residence is placed within a flood hazard area, and that people or structures will not be exposed to a significant risk involving flooding. Impacts are *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: EFFECTS ON WATER QUALITY

Water quality impacts of the Focused Growth Alternative are the same as those analyzed for the Project, with respect to West of Watt, Easton, infill, Commercial Corridors, and buildout of planned communities.

The Focused Growth Alternative increases densities of residential dwellings from 10 dwelling units per acre to 15 dwelling units per acre on a portion of the Jackson Highway Corridor Growth Area. Increased density generally results in an increase of

impervious surface area associated with buildings, parking lots, and roads with less space available for trees and water quality treatment amenities, such as grassy swales. However, community designs that use multi-story buildings and parking structures may result in increased density without increasing the impervious surface area or impacts to water quality.

Based on water quality monitoring data in urban areas compared to suburban or rural areas, higher pollutant concentrations correlate directly with density. The stormwater runoff from 100 acres of low density residential or agricultural residential development is generally not as polluted as runoff from 100 acres in a downtown business district or high density development area. Considered alone, this fact may lead to the conclusion that low density development is the preferred alternative to prevent adverse water quality impacts.

A more appropriate analysis may be to consider impacts to water quality on a per capita basis. The impact of developing 100 acres at a density of 15 dwelling units per acre will likely be less than the impact of developing 150 acres at a density of 10 dwelling units per acre. Though each accommodates 1,500 residential units, the more dense development can preserve 50 acres of undeveloped land. The undeveloped land will not impact water quality and may contain wetlands, trees, and/or riparian habitat, which have beneficial effects on water quality. Therefore, though on a site-specific level denser development will increase pollutant loads, on a regional level the prevention of sprawl and conservation of open space that results from dense development results in fewer impaired or affected waterways. Concentration of development also decreases the size of the area that must be controlled for nonpoint source pollution, which makes control technologies more cost-effective to install and maintain. Therefore, although both the Focused Growth Alternative and the Project will result in a *significant and unavoidable* net increase in pollution to an impaired waterway, the Focused Growth Alternative reduces the severity of the impact on a regional level.

MITIGATION MEASURES:

See HY-2.

MIXED USE ALTERNATIVE

IMPACT: EFFECTS ON FLOODPLAINS

The effects of the commercial corridors, the Easton New Growth Area, and the West of Watt New Growth Area on floodplains would be as described in the main analysis for the Project. The effect of the remaining Mixed Use Alternative strategies would be to increase densities within the existing urbanized areas, which will generally increase impervious surfaces and runoff. Rezoning RD-20 lands to RD-30 would not contribute to this increase, because multiple-family development typically takes up the same basic

footprint regardless of whether it is RD-20 or RD-30. An increase in zoning density will result in smaller units and/or additional stories, not additional developed lot area. An increase in the number of granny units and rezoning RD-1 to RD-3 lands to a minimum of RD-5 would increase impervious surfaces.

Although the Alternative will involve more infill development than the Project, and will thus involve a larger proportion of the watersheds, the Project discussion of the effects of infill development still applies to this Alternative. Compliance with the County of Sacramento Improvement Standards and Floodplain Management Ordinance ensure that the Project will not substantially increase the rate or amount of surface runoff in a manner that causes flooding or that exceeds stormwater system capacity; impacts on floodplains within these areas are *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: FLOODPLAIN EFFECTS ON THE ALTERNATIVE

There are many small floodplains associated with local creeks within the existing urbanized area. The floodplain effects on the commercial corridors, the Easton New Growth Area, and the West of Watt New Growth Area would be as described in the main analysis for the Project. The additional strategies of rezoning very low density properties and increased granny units may be difficult to develop in some areas specifically because there are site constraints that must be addressed, but little room on the site to use in dealing with the issue. The existence of these floodplains may make it infeasible to develop some parcels that would otherwise be good candidates for additional lots or granny units. Existing ordinances require that any new residence be placed above the 100-year floodplain. Compliance with mitigation and the Sacramento County Floodplain Management Ordinance will ensure that no residence is placed within a flood hazard area, and that people or structures will not be exposed to a significant risk involving flooding. Impacts are *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACT: EFFECTS ON WATER QUALITY

The Mixed Use Alternative has the same impacts as the Project as it relates to development of the planned communities, Commercial Corridors, Easton, and West of Watt, the impacts of all of which are less than significant. The Mixed Use Alternative avoids the significant and unavoidable impact associated with development of the Jackson Highway Corridor. However, the Mixed Use Alternative relies even more heavily on infill, which was found in the Project analysis to result in a *significant and unavoidable* impact.

As discussed in the analysis of the Project, the areas targeted for infill (and the Mixed Use Alternative increase in densities) contain several impaired waterways. Implementation of this Alternative will result in a net increase of pollutants to these impaired waterways. The Focused Growth Alternative discussion noted that although increasing densities has been shown to result in increases to pollutant loads, it is also true that on a regional basis there are water quality benefits to increased densities. Under the Mixed Use Alternative, approximately 20,000 acres (Jackson Highway Corridor and Grant Line East) of land that would be developed by the Project would be conserved in its existing condition as a result of the Alternative – and the blueprint housing needs would still be accommodated. This substantially reduces the number of waterways that will be affected by development of the General Plan.

MITIGATION MEASURES:

See HY-2.

8 BIOLOGICAL RESOURCES

INTRODUCTION

This chapter describes the existing biological resources of Sacramento County in terms of the predominant habitat types and their biological values. Special-status species and habitats are addressed separately, and the current regulatory context pertaining to biological resources is summarized. Potential impacts that can reasonably be expected to result from full buildout under the policies of the proposed General Plan Update are identified, and mitigation measures are specified for each impact. Proposed new and modified policies are listed in Appendix A. Readers should be aware that impacts related to obtaining additional water supply for the Project are discussed in the Water Supply chapter.

ENVIRONMENTAL SETTING

REGIONAL CONTEXT

Sacramento County lies just north of the center of California's Central Valley. The confluence of two of the state's major rivers, the Sacramento and the American, occurs within the county. The southwestern panhandle of the county extends far into the Sacramento-San Joaquin Delta, to the point just north of Antioch, where nearly all waters of the Central Valley converge. To the south, San Joaquin County is primarily agricultural. The wooded foothills of the Sierra Nevada rise to the east in Amador and El Dorado Counties. On the north, Placer County has experienced dramatic growth over the past decade, and much of the grasslands adjacent to the northern Sacramento County boundary have been converted to residential uses. Yolo and Sutter Counties to the northwest and west have experienced growth as well, though agricultural uses remain.

LOCAL CONTEXT

~~Sacramento County once supported widespread oak savannah and woodland, with an herbaceous layer of perennial grasses and both annual and perennial wildflowers. Treeless grassland expanses may have occurred only in limited areas on relatively impermeable soil types. Extensive riparian communities and freshwater emergent wetlands occurred, mostly in association with the principal drainage systems and rivers.~~

Sacramento County once supported limited oak savannah and riparian woodland, with an herbaceous layer of perennial grasses and both annual and perennial wildflowers. These woodland areas were centered on the County's three main

rivers: Sacramento, American and Cosumnes. Expansive native valley grassland, also referred to as California prairie, stretched out from the edge of these woodlands and blanketed the bulk of the County's landscape. Vernal pools were scattered in both low and high density clusters throughout the valley grassland habitat. After European settlement of the County, many of the native perennial grasses were replaced by Mediterranean annual grasses. However, within the vernal pools native vegetation uniquely suited to spring time inundation survived. Today these vernal pools harbor a number of listed plant and animal species. In addition to vernal pools, other seasonal and emergent wetlands occurred, mostly in association with the many natural drainage systems that previously flowed through the County, but which are now either channelized or confined within a system of artificial levees.

HABITAT TYPES AND SPECIES

Sacramento County habitat types include wetland, riverine, riparian, grassland, woodland, cropland, and urban forest. Wetlands are found in association with the County's rivers and creeks and their extended watersheds. Riverine includes the aquatic habitat of the Sacramento, American and Cosumnes Rivers, as well as lesser sized streams and creeks. Riparian habitat is composed of the bank vegetation and forested areas adjacent to the County's rivers, streams and creeks; most notable is the riparian habitat found along the American River Parkway. Grassland is found throughout the County's open areas, much of it converted from native prairie to grazing land consisting of mostly non-native grasses. Scattered amongst the grazing land are vernal pools which harbor a number of state and federally listed species. Blue oak woodland habitat is found on the County's eastern edge where the valley floor transitions to the lower foothills of the Sierra Nevada. Cropland is found through much of rural southern Sacramento County drawing irrigation waters from the Sacramento and Cosumnes Rivers, as well as groundwater wells. The County's urban forest is comprised of a broad mix of mostly non-native deciduous and evergreen trees with a few stands of remnant and newly planted native oaks.

The species that inhabit these varied landscapes include large mammals, such as deer and the occasional mountain lion along major river corridors; medium sized mammals typically associated with rural landscapes such as badgers, raccoons and skunks; migratory waterfowl; colony nesting birds; shore birds; migratory and resident raptors and songbirds; anadromous and resident fish, **amphibians, reptiles**, and freshwater invertebrates. Major native vegetation in the County's rural landscapes include oaks, cottonwoods, grape, blackberry, elderberry, native grasses, and a number of small flowering plants associated with vernal pool habitats. Most cropland provides habitat values, typically for foraging. The County's urban forest provides nesting, roosting, and foraging habitat for many songbirds, as well as other species who have successfully adapted to the human environment.

REGULATORY SETTING

FEDERAL AND STATE REGULATORY AUTHORITY

The two major federal laws regulating impacts to wetlands and wildlife species are the Clean Water Act (Section 404 and 401) and the Endangered Species Act (Section 7, 9, and 10). The US Army Corps of Engineers (Army Corps) is responsible for administering the Clean Water Act (CWA), Section 404, with the US Environmental Protection Agency serving in an ~~advisory~~ **oversight** capacity. The US Fish and Wildlife Service (Fish and Wildlife) is responsible for administering the Endangered Species Act, Sections 7, 9, and 10. The state Regional Water Quality Control Board is the regulatory agency that enforces Section 401 of the CWA. The three most important state laws regulating wildlife species, streams, and wetlands are the state Endangered Species Act (Section 2081), Section 1600 of the Fish and Game code, and the Porter-Cologne Water Quality Control Act. The first two are administered by the state Department of Fish and Game (Fish and Game), and the latter is administered by the Regional Water Quality Control Board (Regional Water Board).

CLEAN WATER ACT SECTION 404

The Clean Water Act was passed by Congress to "restore and maintain the chemical, physical and biological integrity" of the nation's waters. The Act was revised in 1977. The CWA identifies the Army Corps as the federal agency charged with regulating and protecting waters of the United States, often referred to as jurisdictional waters. Section 404 of the Act regulates the discharge of dredged and fill materials into waters of the United States, which includes navigable waterways, tributaries to those waterways, and wetlands found in watersheds that are hydrologically connected to those waterways. Thus, wetlands that are not separated from a broader watershed are regulated as jurisdictional wetlands. Jurisdictional and non-jurisdictional wetlands are typically identified by delineating wetland features in accordance with the 1987 Corps of Engineers *Wetlands Delineation Manual* and the **Arid West Regional Supplement.**. Central to any delineation is the presence or absence of hydrophytic vegetation, hydric soils, and wetland hydrology.

At various times since the Clean Water Act was passed in 1977 methods for implementing the Act by the Army Corps have been subjected to various rules. Generally, these rules have sought to streamline protective measures while enhancing water quality. On March 31, 2008, the Army Corps issued a new rule governing wetland mitigation that heightens the issue of watershed protection by providing a preferred hierarchy for selecting mitigation methods. The preferred three-tier hierarchy for **compensatory mitigation is: 1) avoidance of impacts, 2) minimization of impacts, 3) compensation for those impacts that cannot be avoided or minimied (33 CFR 320.4(r)).** ~~1) mitigation banks, 2) in-lieu fees, and 3) permittee-responsible mitigation.~~ Mitigation banks and in-lieu fee methods assume the long-term responsibility of mitigation once a defined payment is made by the permittee. Because these programs are long term they typically protect large, intact, cohesive areas that encompass

sizeable portions of a given watershed. Permittee-responsible mitigation relies on the permittee to protect and manage the wetland resource. Historically, permittee-responsible methods have lead to isolated, non-cohesive mitigation sites that focus on wetland acreage replacement not watershed protection. Implementation of this new rule may stimulate the creation of mitigation banks in the northern and Delta portions of the County. This is supported by existing General Plan policy. The bulk of the County's wetland resources, however, are within the **anticipated** boundaries of the SSHCP, which will most likely rely on a publicly or non-profit managed in-lieu fee mitigation program with a strong focus on watershed protection. Thus, the County is already in the position of meeting the intent of this new rule.

Federal Endangered Species Act

The federal Endangered Species Act was passed in 1973. Sections 7, 9, and 10 of the Act provide the enforcement methods for either protecting species or mitigating species impacts. Section 7 provides a means for federal agencies to authorize "take" of threatened and endangered species. Take is defined by the Act as, "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in such conduct". Fish and Wildlife has further defined the terms "harass" and "harm" to include indirect injury through habitat destruction or modification. It applies to actions that are authorized or permitted by a federal agency, such as issuance of a Section 404 permit by the Army Corps. Section 9 of the ESA prohibits the "take", or direct purposeful killing, of any member of an endangered species that is not incidental to a project. Section 10 allows Fish and Wildlife to issue incidental take permits after applicants submit an acceptable habitat conservation plan that clearly specifies that the impact will likely result from a taking and what actions the applicant will use to minimize and mitigate such impacts.

Vernal pools are a prominent jurisdictional wetland throughout much of developable Sacramento County. Vernal pools harbor endangered vernal pool fairy shrimp and vernal pool tadpole shrimp. To fill jurisdictional wetlands providing habitat for endangered species requires the Army Corps formally consult with Fish and Wildlife. This consulting process between the two federal agencies is required by Section 7 of FESA. The US EPA and Fish and Wildlife provide direction to the Army Corps as to when a permit should be approved or denied. **Fish and Wildlife** ~~This~~ **provides written** direction~~, typically authored by Fish and Wildlife, is~~ referred to as a Biological Opinion, and direction given usually results in one of two conclusions:

1) Fish and Wildlife determines that the impact will not jeopardize the continued existence of a species and thus issue a permit, or

2) The impact will jeopardized the continued existence of the species and no permit is issued.

Further explanation is provided in the following notification, which was submitted to the County by Fish and Wildlife for inclusion[1] into all environmental documents when threatened or endangered species may be adversely affected:

> "As a requirement of the Department of Interior, U.S. Fish and Wildlife Service, the following notification is provided to proponents of any project that has the potential to adversely affect threatened or endangered species:
>
> The applicant is hereby notified of additional conditions as stipulated by the U.S. Fish and Wildlife Service. Features of the applicant's project may adversely affect federally listed threatened or endangered species. An applicant must go through one of two processes to obtain authorization to take federally listed species incidental to completing his or her project. One of the processes is formal consultation. When the authorization or funding of a Federal agency is an aspect of a project that may affect federally listed species, section 7 of the Endangered Species Act requires the Federal agency to formally consult with the Service. Formal consultation is concluded when the Service issues a biological opinion to the Federal agency. The biological opinion includes terms and conditions to minimize the effect of take on listed species. The Federal agency must make the terms and conditions of the biological opinion into binding conditions of its own authorization to the project applicant. An example of this process is when the U.S. Army Corps of Engineers consults with the Service prior to issuing a permit to fill jurisdictional waters under Section 404 of the Clean Water Act. The terms and conditions of the biological opinion become binding on the project applicant through the Army Corps' 404 authorization. When no Federal funding or authorization is involved in a project, an applicant must prepare a habitat conservation plan and obtain a permit directly from the Service in accordance with section 10(a)(1)(B) of the Act. For additional information on these processes please contact the Endangered Species Division of the U.S. Fish and Wildlife Service's Sacramento Fish and Wildlife Office at (916) 414-6600".

MIGRATORY BIRD TREATY ACT

The Migratory Bird Treaty Act (MTBA) of 1916 established federal responsibilities for the protection of nearly all species of birds, their eggs, and nests. Section 16 U.S.C. 703–712 of the Act states "unless and except as permitted by regulations, it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill" a migratory bird. A migratory bird is any species or family of birds that live, reproduce or migrate within or across international borders at some point during their annual life cycle. Currently, there are 836 migratory birds protected nationwide by the MBTA, of which 58 are legal to hunt.

[1] As a condition of the USFWS Biological Opinion for the "Fazio Water" 101-514 water contract, the County of Sacramento has agreed to include USFWS notification language in Initial Studies and EIRs when endangered and threatened species may be adversely affected.

EXECUTIVE ORDER 11990

Executive Order No. 11990 was issued by President Jimmy Carter in 1977 (42U.S.C. et seq.) in order to “avoid to the extent possible the long and short term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative” on federally owned properties (including those that are proposed for lease or sale to non federal parties) and on federally funded (or sponsored) projects.

CALIFORNIA ENDANGERED SPECIES ACT

The California Endangered Species Act (CESA) (Fish and Game Code §2050) generally parallels the main provisions of the federal ESA and is administered by Fish and Game for most terrestrial species, with assistance from the federal National Oceanic and Atmospheric Administration, Fisheries (NOAA Fisheries) for most freshwater fishery species. CESA prohibits the taking of state listed species except as otherwise provided by state law. Unlike the federal ESA, CESA extends the take prohibitions to not only listed species but also for species petitioned for listing. “Take” is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Section 2081 of CESA identifies the following criteria that must be met for Fish and Game to authorize the take of endangered, threatened or candidate species:

- The taking of a listed or candidate species can be minimized and fully mitigated.
- The take would not jeopardize the continued existence of the species.
- Authorization for take must be based on the best scientific material that is reasonably available, and that due consideration will be given to the species’ ability to survive and reproduce.

CALIFORNIA FISH AND GAME CODES (FULLY PROTECTED SPECIES)

According to California Fish and Game Codes Sections 1908, 3511, 4700, 5050 fully protected plant and animals or parts thereof may not be taken or possessed at any time.

Section 3503 makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the Fish and Game Code or any regulation made pursuant thereto.

Section 3503.5 make it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by the Fish and Game Code or any regulation adopted pursuant thereto.

The above codes are not listed under the California Endangered Species Act, which is listed under the Fish and Game Code Section 2050.

California Fish and Game Code Section 1600 (Streambed Alterations)

This section of the Fish and Game Code, 1601 – 1607, regulates activities which will divert, obstruct, or change the natural flow of the bed, channel, or bank of any river or stream. Streambed Alteration Agreements between Fish and Game and project proponents are required for projects involving activities such as the re-channeling and diversion of streams, flood control, bank stabilization, gravel mining, and bridge and culvert crossings. Riparian areas associated with rivers, streams and lakes are also regulated by Fish and Game under Section 1600.

Porter-Cologne Water Quality Control Act

This Act (State Water Code Section 13020) mandates that all the waters of the state be protected, that activities and factors affecting water quality be regulated to attain the highest water quality "within reason", and that the state be prepared to exercise its power and jurisdiction to protect water quality from degradation. Waters of the state are defined as any surface or groundwater within the boundaries of the state. The Regional Water Board issues permits, with varying conditions, to allow the discharge of dredge or fill material or a waiver of waste discharge into waters of the state.

Federal Aviation Administration Regulations

The Federal Aviation Administration (FAA) is the federal agency responsible for developing and enforcing air transportation safety regulations. Many of these regulations are codified in the Federal Aviation Regulations (FARs). The FAA also publishes a series of guidelines for airport operators to follow called Advisory Circulars (ACs). Advisory Circulars in the 150 series deal with airport safety issues, including wildlife hazards. In addition to FARs and ACs, the FAA periodically issues Certalerts for internal distribution and to provide recommendations on specific issues for inspectors and airport personnel. All of the above-mentioned regulations, Advisory Circulars, and Certalerts are frequently changed or updated, and their current status should be verified on a regular basis. This may be accomplished by contacting the FAA directly or by visiting their website at **www.faa.gov/arp/hazard.htm** or **www.faa.gov/faadocs.htm** for the most current revision.

In response to FAA regulations, a Wildlife Hazard Management Plan (WHMP) was prepared to fulfill the requirements of CFR 14 part 139.337(e) for Sacramento International Airport (SMF). An accompanying WHMP manual is intended specifically for the Airport's use to monitor and reduce wildlife hazards. The WHMP has not yet been approved by the FAA.

On August 28, 2007, the Federal Aviation Administration (FAA) released a revised Advisory Circular (AC) for Hazardous Wildlife Attractants on or near Airports (AC 150/5200-33B), which among other things addresses stormwater detention facilities as potential hazardous wildlife attractants. The AC states the following:

> **New storm water management facilities**.

> The FAA strongly recommends that off-airport storm water management systems located within the separations identified in Sections 1-2 through 1-4 be designed and operated so as not to create above-ground standing water. Stormwater detention ponds should be designed, engineered, constructed, and maintained for a maximum 48-hour detention period after the design storm and remain completely dry between storms. To facilitate the control of hazardous wildlife, the FAA recommends the use of steep-sided, rip-rap lined, narrow, linearly shaped water detention basins. When it is not possible to place these ponds away from an airport's AOA, airport operators should use physical barriers, such as bird balls, wire grids, pillows, or netting, to prevent access of hazardous wildlife to open water and minimize aircraft-wildlife interactions. When physical barriers are used, airport operators must evaluate their use and ensure they will not adversely affect water rescue. Before installing any physical barriers over detention ponds on Part 139 airports, airport operators must get approval from the appropriate FAA Regional Airports Division Office. All vegetation in or around detention basins that provide food or cover for hazardous wildlife should be eliminated. If soil conditions and other requirements allow, the FAA encourages the use of underground storm water infiltration systems, such as French drains or buried rock fields, because they are less attractive to wildlife.

According to the FAA, all stormwater facilities must drain within 48 hours of the design storm if they are located within 10,000 feet of all airports' operations areas. Furthermore, for a five mile radius (nearly 20 square miles) the AC discourages hazardous wildlife attractants and therefore detention basins that do not drain within 48 hours. In a January 17, 2008 comment letter on the Natomas Levee Improvement project, the FAA informed the Army Corps that,

> FAA Advisory Circular 150/5200-33 recommends a separation distance of 10,000 feet between aircraft movement areas such as runways and taxiways, aircraft loading ramps, aircraft parking areas, and any wildlife attractant at airports normally serving turbine-powered (jet) aircraft. FAA Advisory Circular 150/5200-33 also recommends a distance of 5 statute miles between approach and departure airspace and any wildlife attractant which may cause wildlife movements into or across the approach or departure airspace. An additional resource providing information regarding aircraft-wildlife strike hazards is *Wildlife Hazard Management at Airports: A Manual for Airport Personnel (2005)* available on-line from the University of Nebraska, Lincoln at http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1127&context=icwdm_usdanwrc, or by searching the World Wide Web.

The 10,000 foot separation is considered a critical area where there should be no hazardous wildlife attractants. Out to five miles, the language is less absolute and, according to the SCAS, focuses on how multiple attractant sources may cause wildlife to move across approach and departure airspace. For example, a corn field may in itself not provide a hazard if located 4.5 miles out and not in line with a runway but if a source of water was located such that it caused wildlife to move from the corn field

across an approach departure zone to get to the water, the AC advises against the land use.

The AC differentiates between detention ponds and retention ponds as follows:

> **Detention ponds.** Storm water management ponds that hold storm water for short periods of time, a few hours to a few days.
>
> **Retention ponds.** Storm water management ponds that hold water for several months.

Within Sacramento County, development is required to comply with the Stormwater Quality Design Manual for the Sacramento and South Placer Regions - http://www.sactostormwater.org/SSQP/development.asp. As part of the development process, developers are commonly required to provide stormwater detention facilities. These facilities serve to collect runoff and provide treatment for water quality purposes and additionally they buffer peak stream flows by holding water and discharging after peak events. This detention of water and temporary storm flow storage can conflict with the AC if water is held over 48 hours and the facility is located near an airport.

NATOMAS BASIN HABITAT CONSERVATION PLAN

The 2003 Natomas Basin Habitat Conservation Plan (NBHCP) is a supporting document for federal Section 10(a)(1)(B) and State Section 2081 permit applications. Section 10(a)(1)(B) of the federal Endangered Species Act allows incidental take of endangered or threatened species subject to its permit requirements. Similarly, State Section 2081 of the California Fish and Game Code allows the California Department of Fish and Game to enter into management agreements that allows activities which may otherwise result in habitat loss or take of individuals of a state listed species.

The NBHCP applies to the 53,341-acre interior of the Natomas Basin, located in the northern portion of Sacramento County and the southern portion of Sutter County. This HCP is within the incorporated area of the City of Sacramento and the unincorporated areas of Sacramento and Sutter counties. However, Sacramento County is not a signatory party to the NBHCP. The purpose of the NBHCP is to promote biological conservation along with economic development and the continuation of agriculture within the Natomas Basin. The NBHCP establishes a multi-species conservation program to mitigate the expected loss of habitat values and incidental take of protected species that would result from urban development, operation of irrigation and drainage systems, and rice farming. The goal of the NBHCP is to preserve, restore, and enhance habitat values found in the Natomas Basin while allowing urban development to proceed according to local land use plans.

The NBHCP was approved by Fish and Wildlife and incidental take permits were issued in June 2003 for a period of 50 years.

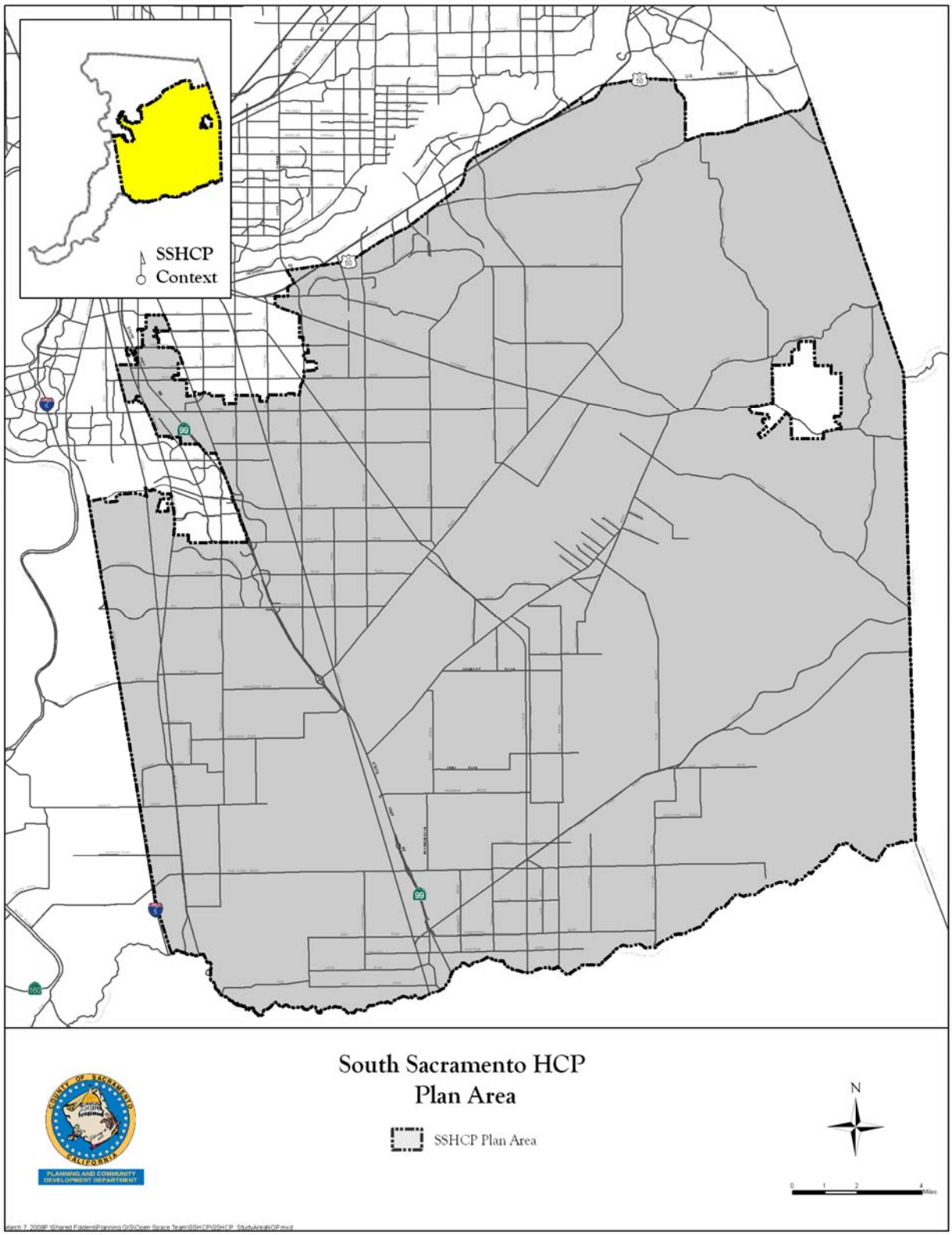
SOUTH SACRAMENTO HABITAT CONSERVATION PLAN

The SSHCP is currently in development; there is no scheduled date for release of a public review draft at the time of this writing. The Draft EIR contained details of the developing SSHCP that were current at the time, but because the plan continues to be developed changes to these details have occurred and may continue to occur until a publication date is known. For this reason, all of the detailed language has been stricken from this FEIR, and language has been changed to reflect this uncertainty (e.g. "will" amended to "may"). Please check the SSCHP website for the most current information on the plan (http://www.planning.saccounty.net/SSHCP.html).

The ~~proposed~~ **anticipated** SSHCP is a regional approach to conserving species and addressing issues related to urban development, habitat conservation, open space preservation, and agricultural protection. To develop the SSHCP the County is partnering with Rancho Cordova, Elk Grove, Galt, the Sacramento Regional County Sanitation District, and the Sacramento County Water Agency. **The intent of the anticipated** ~~The~~ SSHCP ~~would~~ **is to** minimize regulatory hurdles and streamline the permitting process for projects that engage in development-related activities inside the urban development area or UDA. The UDA corresponds to land within the County's urban services boundary (USB), and to land within the city limits of Rancho Cordova, Elk Grove and Galt, and Galt's adopted sphere of influence. **As currently envisioned** the SSHCP would consolidate environmental efforts to protect and enhance vernal pool habitat and other aquatic and upland habitats to provide ecologically viable conservation areas in south Sacramento County for numerous species. **The intent of the** ~~Adoption of the~~ SSHCP **is to provide a mechanism by which the** ~~would authorize the~~ County and its partners **could be authorized** to issue permits that allow landowners to engage in specific development activities (covered activities) that could result in the incidental take of listed species (covered species). **The intent is that t**he County and its partners would adopt a developer-paid fee based on loss of habitat acreage, habitat type, and long-term management costs; fees would fund the habitat preservation, restoration, and management elements of the proposed SSHCP.

The geographic location of the ~~proposed~~ **anticipated** SSHCP includes ~~a combined 341,000 acres~~ **area** within south Sacramento County (unincorporated area) and the cities of Rancho Cordova, Elk Grove, and Galt. The **anticipated** geographic boundaries of the SSHCP planning area are Highway 50 to the north, the County line to the east and south, and Interstate 5 to the west. The **anticipated** plan area (Plate BR-1) excludes the City of Sacramento, the City of Folsom, Folsom's Sphere of Influence, the Sacramento-San Joaquin Delta, and the Sacramento County community of Rancho Murieta. Bisecting the plan area is the Cosumnes River/Deer Creek corridor.

Plate BR-1 Anticipated SSHCP Planning Area



~~PROPOSED~~ ANTICIPATED SOUTH SACRAMENTO HABITAT CONSERVATION STRATEGY

The ~~proposed~~ **anticipated** conservation strategy for the SSHCP **is intended to** provide~~s~~ for the conservation of covered species and their associated habitat types so as to aid recovery of the species; fully mitigate for the impacts of covered activities on the species and their habitats and landscape ecology; the ecological needs of the covered species; and the nature, quality, and geographical distribution of the different habitat types.

The **purpose of any** permits **that may be** issued for implementing the **anticipated** SSHCP would **be to** minimize and mitigate incidental take and provide for the conservation of ~~40~~ covered species that may occur in the plan area. **It is anticipated that t**he plan **will identify** ~~identifies 18~~ different habitat types, including vernal pool aquatic and upland habitat, other wetland habitats, oak woodland, and agricultural crops. **The current habitat cover map that has been developed for use in the SSHCP is included as** Plate BR-2. **Though the baseline habitat data used to generate this map (e.g. location of wetland areas) is not expected to change, the categorization of this habitat data and the location of noted "zones" may change as part of SSHCP development.**

~~The proposed SSHCP conservation strategy includes the following elements:~~

- ~~Protect approximately 8,000 acres of habitat inside the UDA (excludes existing protected acreage).~~
- ~~Protect approximately 32,000 acres outside the UDA.~~
- ~~Restore approximately 1,500 acres of habitat in the plan area.~~

~~The~~ **It is envisioned that the** plan ~~anticipates~~ **will create** larger habitat preserves and linked habitat corridors outside the UDA; such preserves would be a component of the rural landscape. **It is also envisioned that h**abitat preserves inside the UDA would be smaller, also linked by corridors, and would eventually be a component of the urban/suburban landscape infrastructure. ~~Specific location of preserves would occur over time during plan implementation.~~ **It is anticipated that h**abitat preserves purchased or conservation easements acquired would be from willing sellers and would be selected based on a number of important biological criteria, **which may include** ~~including~~:

- Protect habitat areas that are considered core elements of the SSHCP.
- Add parcels onto existing preserves to increase their size and reduce habitat fragmentation and edge effect.
- Provide connections to existing preserves and/or preserve areas that are currently isolated from each other.

~~The SSHCP's management strategy is based on the concepts of conservation biology and landscape ecology, the ecological needs of the covered species, and the nature, quality and geographical distribution of the different habitat types. This strategy~~

~~encompasses goals and objectives for preservation, enhancement, restoration, and avoidance. The SSHCP identifies the following biological goals:~~

1. ~~Preserve habitat to protect and sustain viable populations of covered and common species within the SSHCP study area.~~

2. ~~Restore and/or create habitat to support covered and common species within the SSHCP study area.~~

3. ~~Establish landscape linkages that maintain connectivity between preserves within the SSHCP study area.~~

4. ~~Enhance habitat to support covered species within the SSHCP study area.~~

5. ~~Maintain viable populations of SSHCP covered species in the SSHCP study area.~~

6. ~~Aid in the recovery of SSHCP covered plant species by establishing outlier populations in the study area.~~

7. ~~Avoid and minimize impacts to SSHCP covered species.~~

~~Biological goals are followed by multiple objectives, typically quantified in acres, linear distances, or species specific actions to attain the goal. Each objective provides success criteria, rationale for objective, and means to achieve the objective. Numerous measures are identified that provide detailed criteria to direct implementation of each objective. The measures are specific targets needed to meet each biological goal. To review the goals, objectives, and measures, see the SSHCP website: http://www.planning. saccounty.net/habitat-conservation/docs/chapters/SSHCP-Conservation-Strategy-Chapter-7.pdf.~~

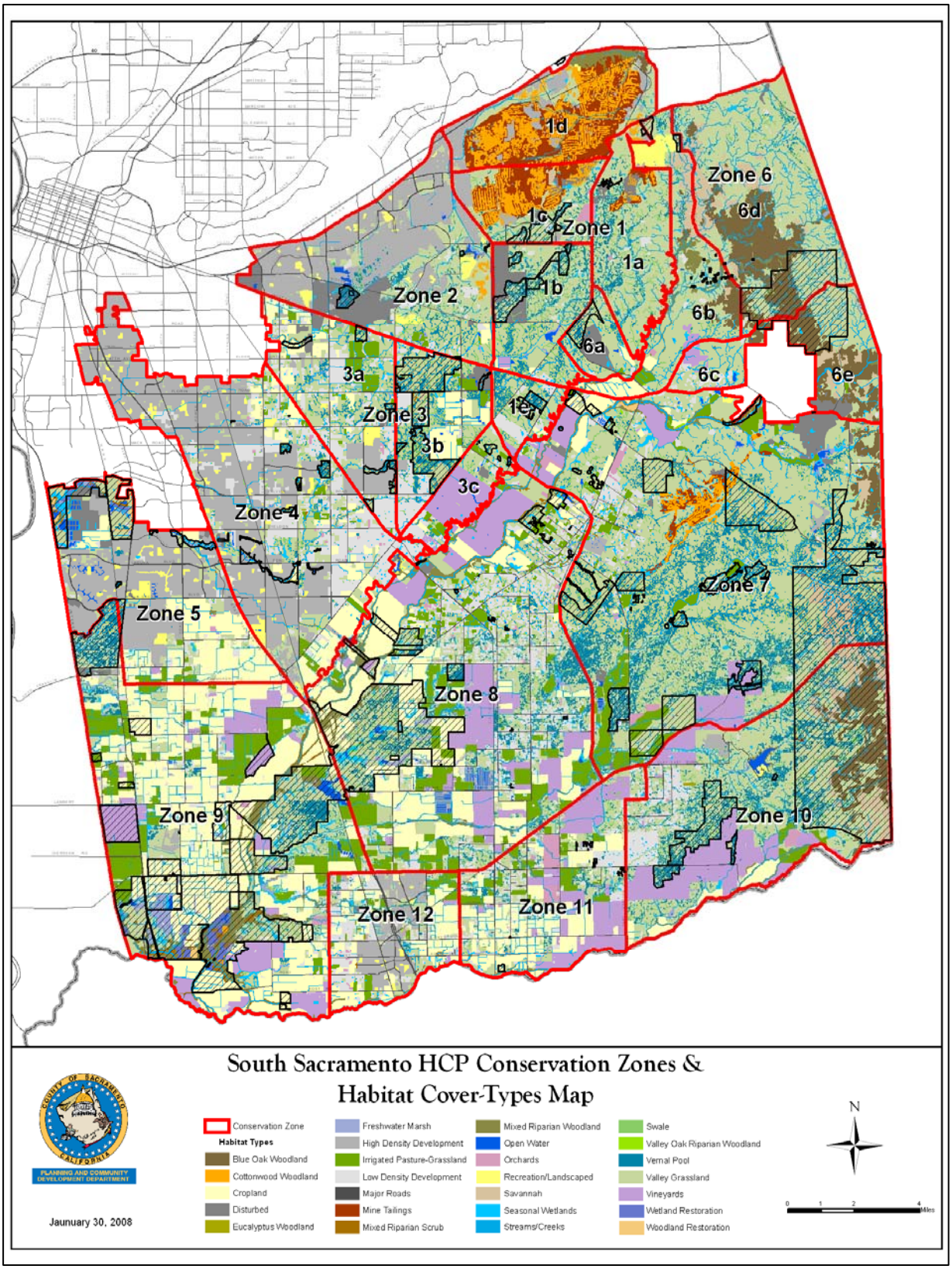
~~To assist in implementing the objectives the study area is divided into twelve conservation zones with subzones (Plate BR-3). Land use, jurisdiction, and special planning areas were used to identify conservation zone boundaries in conjunction with habitat types. Recognizable features, like roadways, were used to identify conservation zone boundaries. Six conservation zones (1 – 5 &12) are within the UDA, or take area, and six are outside the UDA. Separating the SSHCP study area into 12 zones rather than using the entire study area assists planners in developing conservation strategies on a smaller scale to ensure the species and habitats covered under the plan are protected.~~

~~Implementation of the SSHCP will result in the following broad actions:~~

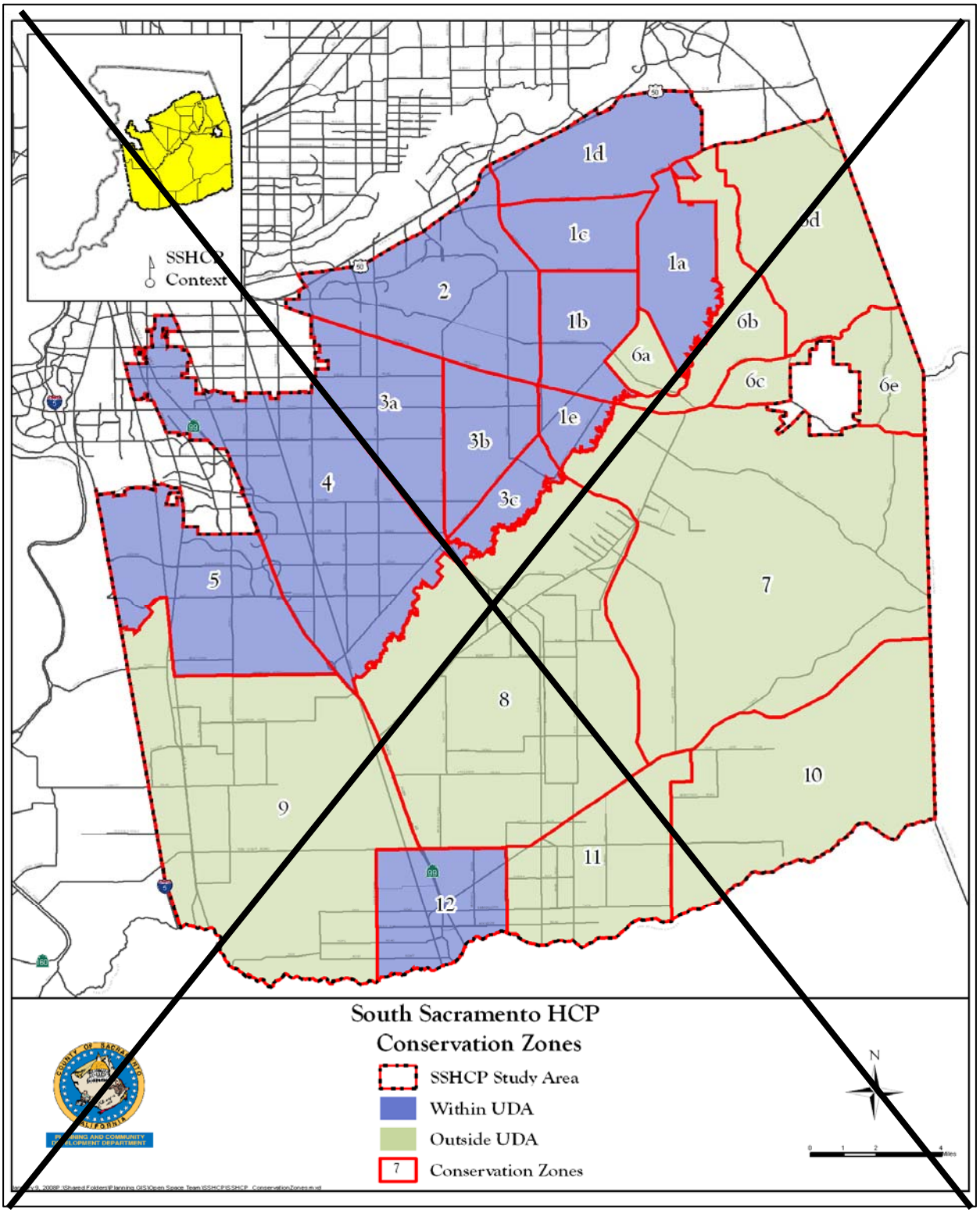
- ~~Develop approximately 40,000 acres.~~
- ~~Protect approximately half of the remaining vernal pools within the UDA.~~
- ~~Protect approximately 40,000 acres of habitat. (80 percent of habitat protection will occur outside the UDA.)~~
- ~~Restore approximately 1,500 acres~~

~~Within the UDA most acreage will be converted to urban uses, although the plan does identify an estimated 8,000 acres for protection in zones 1 – 5 & 12. Conservation zones outside the UDA (6 – 11) will see the bulk of preserve development by protecting an estimated 32,000 acres. In addition, the SSHCP anticipates conserving additional acreage by using grant monies or similar resources from local, state and federal agencies and private organizations.~~

Plate BR-2 SSHCP Habitat Types



~~Plate BR-3 Conservation Zones Map~~



~~*PRESERVE SYSTEM*~~

~~The specific locations of protected preserves are not identified in the SSHCP. This approach to habitat preservation is referred to as "soft preserve design" because "hard" preserve boundaries are not established prior to HCP implementation; but rather, locations for preserves are identified based on a set of guidelines and parameters for preserve system design, including a system of zones and sub-zones. Preserves will be established through real property or easement acquisitions. Preserves within the UDA will likely build upon existing conservation areas. Preserve areas outside the UDA will likely concentrate, though not exclusively, on areas with higher concentrations of vernal pools. The plan envisions habitat corridors which, in general, should be wide (at least 1,000 feet) and structurally diverse. Restoration/creation of vernal pools and seasonal wetlands is also anticipated.~~

MONITORING

If the SSHCP is adopted and reaches the ~~Once the SSHCP is in the~~ implementation phase, managers need information on how the conservation elements of the plan are performing to achieve the stated goals of the plan. Monitoring data are needed to ensure proper compliance with the HCP and to determine whether biological goals and objectives are being met. Generally, monitoring is conducted for three basic purposes:

- Compliance monitoring (to validate compliance with pre-determined conditions, such as maintaining a minimum number of animals in a population)
- Effectiveness monitoring (to validate accomplishment of site-specific goals, such as restoration of a wetland)
- Status and trends monitoring (to detect changes and determine when background conditions are above or below some threshold, such as water temperature)

In addition, **it is anticipated that** a full analysis of the biological underpinnings and the conservation strategies will be conducted **at intervals throughout the life of the permit.** ~~every 5 – 7 years throughout the life of the permit (30 years)~~.

COVERED ACTIVITIES

Development activities **that may be** considered under ~~this~~ **the anticipated** Plan are **likely to be** wide ranging and may result in incidental take, but **it is expected that activities will** ~~are~~ primarily **be** related to urban-suburban development. ~~Proposed~~ **C**overed-activities may include the construction, installation, or extension of:

- Private and commercial developments
- Transportation facilities
- Surface and groundwater delivery facilities
- Water treatment facilities

- Solid waste sanitation facilities
- Public facilities (fire station, police stations, hospitals, schools, community centers, cemeteries, and administration centers)
- Indoor and outdoor recreation facilities
- Energy utility facilities
- Aggregate mining activities
- Habitat management activities

Activities **that are** likely not **to be** covered under the SSHCP include agricultural practices, development within Rancho Murieta, proposed aggregate mining outside the UDA, and rural residential development.

Covered Species

There are ~~40~~ **a multitude of** wildlife and plant species ~~proposed~~ **considered** for coverage under the Plan~~, including four state and seven federally listed species~~. **Anticipated c**overed species include ~~five~~ mammals, ~~18~~ birds, ~~five~~ invertebrates, ~~eight~~ plants, ~~two~~ amphibians, and ~~two~~ reptiles. To review the **current list of potentially-** covered species ~~list~~ please refer to the SSHCP website: http://www.planning.saccounty.net/habitat-conservation/species-docs.html

~~*Incidental Take*~~

~~Almost all incidental take of SSHCP covered species will occur inside the urban development area or UDA. A limited amount of infrastructure development, such as planned road widening projects and water conveyance pipelines would occur in the SSHCP planning area outside the UDA.~~

~~Current assumptions of take include:~~

- ~~Take will occur on approximately 40,000 acres within the UDA on land already identified for urbanization.~~
- ~~Take will occur on approximately 2,000 acres outside the UDA for public roadway or utility projects already identified in master plans or other projections.~~

***Anticipated* SSHCP Regulatory Structure**

The **anticipated** SSHCP is **intended to be** essentially a permitting document to meet the legal requirements of the Federal and State Endangered Species Acts. Section 10 of the Federal Endangered Species Act (FESA) allows Fish and Wildlife to issue incidental take permits, provided the **anticipated** SSHCP clearly meets the following conditions found in Section 10(a)(1)(B) of FESA:

- The taking of a listed species (under FESA) is incidental to otherwise lawful activities, such as urban development.
- The County and it's partners minimize and mitigate impact of the taking of species, to the maximum extent feasible.
- The HCP demonstrates a means for ensuring adequate funding.
- The taking of species will not appreciably reduce the likelihood of the survival and recovery of species.

The **anticipated** SSHCP ~~anticipates issuance of~~ **may include the following** ~~six~~ permits or compliance approval actions:

- Federal Endangered Species Act (FESA), Section 10(a)(1)(B) permit (incidental take) issued by the US Fish and Wildlife Service
- Clean Water Act, Section 404 permit (wetland fill) issued by the US Army Corps of Engineers
- Clean Water Act, Section 401 compliance (water quality) administered by the Regional Water Quality Control Board
- California Endangered Species Act (CESA), Section 2081 permit (incidental take) issued by the Department of Fish and Game
- Fish and Game Code, Section 1600 agreement (stream bed alteration) issued by Department of Fish and Game
- National Historic Preservation Act compliance, Section 106.

~~The SSHCP anticipates providing an expedited means for issuing Section 404 permit under the federal Clean Water Act. The means for integrating Section 404 under the SSHCP is uncertain at this time, although some form of streamlined wetland permitting is anticipated. In addition to Section 404, the HCP will need to comply with Section 401 of the Clean Water Act. Compliance with 404 and 401 generally go hand in hand with the Army Corps administering Section 404 compliance and the state Regional Water Quality Control Board administering Section 401.~~

~~The California Endangered Species Act generally parallels the main provisions of the federal Endangered Species Act and is administered by the Department of Fish and Game. Unlike its federal counterpart, CESA applies the take prohibitions to species not only listed but also those that are petitioned for listing, like the California Tiger Salamander. Section 2081 of CESA requires that the take of endangered, threatened or candidate species be only authorized if:~~

- ~~The taking of a listed or candidate species can be minimized and fully mitigated.~~
- ~~The take would not jeopardize the continued existence of the species.~~

~~Fish and Game also has oversight of stream courses within the SSHCP area. To construct in streams or drainage channels (Fish and Game) requires a Streambed Alteration Agreement, under Section 1600 of the State Fish and Game Code.~~

~~Section 106 of the National Historic Preservation Act regulates the conservation and protection of historical resources. Section 106 requires the four local jurisdictions and two special districts take into account the effects of the SSHCP on historic properties. Historic properties are properties that are included in the National Register of Historic Places or that meet the criteria for the National Register.~~

Existing Conservation Areas

Since the beginning of the SSHCP **development and** planning process to-date a number of organizations and agencies have protected habitat areas both in and outside the UDA. The largest such area inside the UDA is the Sacramento Valley Conservancy's (SVC) prairie preserve. This area is generally bounded by Excelsior Road, the Jackson Highway, Grant Line Road, and Eagle's Nest Road. Outside the UDA are three large conservation areas that have been set aside for habitat conservation and continuation of agricultural operations. The first area is the Cosumnes River Preserve, which is mainly riparian, woodland, upland habitat, and agricultural land. The second large area is the Chance Ranch (formerly Howard Ranch), which is in the southeast corner of the County and is mostly narrow stream-side riparian, upland, woodland, vernal pool, and grassland habitat. The third large conservation area is the Deer Creek Hills Preserve located north and east of Rancho Murieta and is mostly rolling blue oak woodland and grassland.

~~Adoption of the~~ SSHCP Process

The SSHCP is **currently in development by the Sacramento County Planning and Community Development Department, and work is also being performed by the Department of Environmental Review and Assessment to begin environmental review to the extent possible.** ~~a draft document currently undergoing environmental review. It is anticipated the SSHCP will begin hearings before the Board of Supervisor in late 2010.~~ **There is currently no anticipated public draft release date for the SSHCP, and consequently there is no anticipated public hearing schedule before the Board of Supervisors. It is anticipated that c**urrent County biological resource regulations, such as the Swainson's Hawk Ordinance, ~~will~~ **would** sunset if and when the SSHCP is adopted. In the meantime, existing policies and regulations will provide decision-makers with guidance. ~~Also in the interim, the SSHCP will further refine various issues including mitigation fees, adaptive management opportunities, and the implementation plan.~~

1993 GENERAL PLAN CONSERVATION ELEMENT

The purpose of the Conservation Element is to manage and protect the County's natural resources for the use and enjoyment of present and future generations while maintaining the long-term ecological health and balance of the environment.

The Conservation Element includes policies that protect natural resources such as wetlands, vernal pools, streams and rivers, riparian habitat, woodlands, and native trees. When impacts to these natural resources cannot be avoided during development, certain policies require mitigation to ensure that impacts are minimized and that there is no net loss of the affected resource.

SWAINSON'S HAWK IMPACT MITIGATION FEE ORDINANCE

The California Department of Fish and Game requires that mitigation for foraging habitat be provided within the known foraging radius of a nesting Swainson's hawk. However, provision of lands for habitat mitigation by a project proponent may not always be feasible. Thus, on November 5, 1997, the Board of Supervisors adopted the Swainson's hawk ordinance (SCC-1093), which was subsequently amended by the Board on April 1, 1998 (SCC-1107) that provides for the establishment of impact mitigation fees for the actual acquisition of foraging habitat. On June 8, 2005 the Board adopted additional amendments to the Ordinance, which became effective on July 8, 2005. The 2005 amendments increased the Impact Mitigation Fee to a total of $18,375 per acre and added an Operations and Management Fee of $500 per acre. In addition the applicability of the Ordinance was expanded County-wide. If the SSHCP is approved **as currently envisioned**, **it is likely that** the ordinance will only apply to those areas outside the SSHCP planning area. The ordinance provides a means for mitigating foraging impacts consistent with Fish and Game guidelines. The methodology for off-setting impacts is based on zoning.

The current methodology for assessing impact is based on the following impact accrual: 25% of the impact occurs when a site is rezoned from AG-40 or greater to AG-20; an additional 50% of the impact occurs when a property is zoned from AG-20 to AR-10; and another 25% of the impact occurs when a property is rezoned from AR-10 to AR-5 or denser. Therefore, if a project is rezoned from AG-40 or greater to AR-5 or less, the foraging habitat loss is considered 100%. Conversely, if open land is zoned non-agricultural and is being developed for urban uses, mitigation may not be required. The basis for calculating mitigation is project acreage and the means for mitigation is financial compensation or land dedication.

The methodology does provide exceptions to the requirement that the property be zoned for agricultural uses. These exceptions include select Specific Plan areas and projects in Rancho Murieta, specifically because the zoning method underestimates habitat in those areas. On a case by case basis, the County's Environmental Coordinator can also recommend that a project requesting to convert expansive open grassland to urban uses mitigate for lost foraging habitat.

GREENPRINT

Started in 2005, the Greenprint initiative is a multi-decade regional framework created to meet the Sacramento region's sustainability and livability goals by expanding urban forests and optimizing the benefits of tree canopies. Sacramento County is one of 26 SACOG jurisdictions that have signed on to the Greenprint, which includes initiatives to double the tree canopy in 40 years, improve air quality, water quality, energy conservation, real estate, and businesses by increasing the Sacramento region's average shade coverage to 35%.

HABITAT TYPES

This section describes the diverse habitat types throughout Sacramento County, along with the benefits and functions associated with each type. In addition to the habitat-specific benefits and functions, all of the habitats in Sacramento County provide a function known as carbon sequestration.

Carbon dioxide sequestration refers to the annual rate of storage of CO_2 in above- and below-ground biomass over the course of one growing season. **Biomass refers to the vegetative growth associated with habitats, such as trees, shrubs, grasses and wetland vegetation.** ~~Habitats with greater woody biomass, such as oak woodlands, riparian woodlands, and the urban forest provide a higher level of carbon sequestration than wetlands and grasslands.~~ Sequestration depends on ~~tree~~ **plant** growth and mortality**.**~~, which in turn~~ **In habitats with greater woody biomass, such as oak woodlands, riparian woodlands, and the urban forest, sequestration** depends on species composition and age structure of the woodland or urban forest. As long as ~~trees~~ **plants** are actively growing, their rate of uptake of CO_2 through photosynthesis is greater than their release of that gas through respiration, and the net result is a reduction of CO_2 in the atmosphere. Eventually, all trees die, and most of the CO_2 that has accumulated in their woody biomass is released into the atmosphere through decomposition. **Although woodland areas generate a great deal of biomass. grassland and wetland vegetation sequester CO_2 primarily in the soil which enables both to hold larger amounts of CO_2 than woodland habitat.**

WETLANDS

The County of Sacramento contains a number of wetland habitats, most of which are naturally occurring, although some are artificially created as mitigation for prior impacts. Federal regulation has defined the term wetland to mean "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions". The term "wetlands" includes a diverse assortment of habitats such as perennial ~~permanent~~ and seasonal freshwater marshes, vernal pools, and wetted swales. These wetland features share a number of physical characteristics, including frequent or seasonal inundation by water, soil

saturated long enough to exclude organisms intolerant of anaerobic conditions, and plants that are adapted to wetted conditions.

PERMANENT WETLANDS

Historically, permanent wetlands were an important component of the hydrologic characteristics of the County's rivers and streams. However, beginning 150 years ago permanent wetlands were routinely drained to make way for agriculture and other uses. Permanent wetlands serve as nurseries for juvenile fish, they filter suspended sediment, recharge groundwater reservoirs, and slow flow velocities, thus limiting erosion. Today the County's permanent wetlands are remnants of what was a much larger network of natural shallow drainages and shallow ponds. Permanent wetlands and their margins harbor some of the greatest species diversity found in any habitat type. Species include warm water fish, resident and migratory song birds, resident and migratory waterfowl, and various mammals. Representative of permanent wetlands within the County are portions of North and South Beach Lake within Stone Lakes National Wildlife Refuge, and Fisherman's Slough in the Natomas area.

SEASONAL WETLANDS

Seasonal wetlands are scattered throughout the County, most in association with the County's rivers and creeks, many within floodplains. These wetlands typically begin to form after the first winter rains and fill as rain continues through the season. They drain primarily via drainage swales during high runoff, or via combination of ground percolation and evaporation. By mid-summer or early fall these features will typically be dry. Depending on water depth and duration, seasonal wetlands can harbor federally-listed invertebrates and provide habitat for a large number of species, including the listed California tiger salamander and red-legged frog. Seasonal wetlands primarily differ from vernal pools (see below) in their underlying soils. Seasonal wetland soils are typically more permeable than the clay soils associated with vernal pools.

VERNAL POOLS

Vernal pools are small basins, depressions on the landscape, that collect seasonal rains to support a specialized collection of plant and animal species. Typically, semi-impermeable soil underlies most vernal pools and restricts downward percolation of collected rain water. As a result, pool water slowly evaporates during the spring creating showy displays of tiny flowers blooming in concentric circles as the water recedes. Most plants found in vernal pools are endemic and have adapted to survive partially submerged conditions. These conditions have kept at bay the non-native grasses that comprise much of the County's grazing lands. Thus, vernal pools are small pockets of mostly native vegetation surrounded by mostly non-native grass species.

Vernal pool complexes are a combination of depressions that hold water during the rainy season and associated upland grasslands. Many vernal pool related

animal species spend their lives in both the vernal pool and upland environments and they are dependent on both environments in the vernal pool complex. For example, the western spadefoot and California tiger salamander spend most of their lives in burrows located in upland habitat; however, both species are dependent on wetland habitat in order to mate and lay eggs. The wetlands provide rearing habitat for the young. In addition many vernal pool plants rely on upland species for pollination (Witham 2006).

Vernal pools once dotted vast areas of the Central Valley. However, due to both agricultural and urban development much of the vernal pool landscape has disappeared. This, in turn, has caused a drastic reduction of a number of vernal pool-dependent species, including the federally listed vernal pool fairy shrimp and vernal pool tadpole shrimp. In Sacramento County vernal pools are found in denser concentrations inside the USB between Mather Field and the County landfill along Keifer Boulevard, and outside the USB between Dillard and Twin Cities Road east of Highway 99.

Seasonal Swales

Depending on the underlying soils, swales share similar characteristics with either seasonal wetlands or vernal pools. Typically, swales are shallow, linear features that may serve as drainage features into or out of a seasonal wetland or vernal pool. Although common throughout much of the County's wetland landscapes, the wetland functions of a swale are less pronounced than either of the aforementioned wetlands. Shallowness and drainage components of swales limit the duration of ponded water, thus reducing the imprint of typical wetland characteristics.

Human-made Stock Ponds

In the County's rural lands ranchers have established water features, or stock ponds, typically by damming small drainages to form relatively deeper ponds which can hold water through much of the summer months. Pond banks are typically mired by thirsty cattle, which can limit vegetation to only the hardiest plant species. However, these ponds typically provide a deeper water habitat for some amphibian species which use the water depth to stave off bird predation and moderate temperature fluctuations.

Valley-Foothill Riparian Habitat

Valley-foothill riparian habitat, varying from dense thickets of shrubby willows and/or Himalaya blackberry to tall, multi-layered forests of valley oaks and Fremont's cottonwood, occurs along some reaches of most of the major rivers and seasonal creeks of the county. Under natural circumstances, with extensive annual flooding and regular scouring of watercourses by swiftly flowing stormwaters, riparian habitat cycles continuously from newly formed sandbars to mature forest. The dynamic character of the riparian ecosystem has been suppressed by the combination of damming, levee construction and maintenance, and regular channel clearing that is applied to protect human lives and property in the floodplains. Thus, no-disturbance protection of avoided

riparian areas may not preserve all habitats that are essential elements of the riparian community.

Riparian habitats support the greatest diversity of wildlife of any habitat type in the County and provide critical resources (e.g., nesting, denning, and resting areas, thermal cover, and water) for many species that forage extensively in adjacent grasslands or croplands. Riparian habitat provides essential thermal and visual cover for terrestrial, avian, and aquatic wildlife. The majority of the non-aquatic special-status wildlife species in the county require riparian habitat for at least some portion of their life cycle. In developed areas, riparian corridors are usually the only remaining "natural" habitats; they will therefore constitute or support nearly all of the future biological resources of all parts of the county not zoned for agriculture or natural preserve.

ANNUAL GRASSLAND AND AGRICULTURAL CROPLAND

Presently, a large portion of the County is agricultural land (including rangelands). Rangelands and fallow croplands support annual grassland, dominated by introduced Mediterranean grasses (primarily medusa head grass, Mediterranean barley, wild-rye, and bromes) and forbs (primarily star-thistle, wild mustards, and filarees). Native species comprise a ~~small~~ portion of the annual grassland flora. Vernal pools occur in varying concentrations in nearly all grassland or agricultural areas that have not been heavily graded, and persist even in many fields that are disced at least annually.

Grasslands and many croplands support a wide variety of birds, including seed- and insect-eating songbirds, scavengers, and many raptors. Raptor abundance and diversity are limited by prey availability and the scarcity of nest sites. The most common mammals in these habitats are voles, gophers, and ground squirrels, although larger species occur where cover or foraging corridors connecting to less-disturbed habitat are available (primarily in the eastern portion of the county).

TREES

OAK WOODLANDS

The eastern portion of the County supports extensive oak woodlands comprised of valley oak, interior live oak and blue oak. These woodlands occur in moderate to dense stands and are hosts to several special-status migratory raptors. Because this portion of the county is largely unfragmented and has experienced relatively low disturbance (with the exception of grazing and residential areas in and around Sloughhouse and Rancho Murieta), this area retains high wildlife values for wide-ranging species.

OAK SAVANNAHS

Oak savannahs are defined as a mixture of oaks and grasslands in which the oaks are more dispersed and grasses receive abundant sun. Oak savannahs are a transitional ecosystem between oak woodlands and grasslands. Thus, oak savannahs are

important resources for both woodland and grassland vertebrate and invertebrate species. The oak savannah is sustained by frequent natural fires and as urban development spreads, fire suppression is needed so as not to endanger human life.

Native California Oaks

Native California oaks include blue oak (*Quercus douglasii*), interior live oak (*Quercus wislizenii*), and valley oak (*Quercus lobota*). The three native oaks are large trees with small to medium size leaves, produce acorns, and grow to heights of 100 feet. Each oak differs in its habitat requirements with valley oak occupying sites with deeper soils which provide adequate soil moisture. The other two oaks are more drought tolerant and are found on shallower soils.

Native oak trees provide wildlife habitat for species endemic to California that evolved over thousands of years. Oak trees provide a vital structural and biological component to savannah and woodland communities.

Native oaks are being removed throughout California for agricultural land conversion and urban development. Plant and wildlife species dependent on the oak trees are lost along with the oak tree removal.

Urban Forests

The urban portions of Sacramento County have experienced substantial growth over the past fifteen years. Part of the urban environment is the extensive urban forest that is created to increase aesthetic and environmental benefits to new residential and commercial developments. These benefits include: ornamental value, shade canopy (reducing the effects of urban heat island and building energy consumption), community livability, and storm water quality. The majority of urban forests contain non-native ornamental species that are chosen for their shade value, resistance to pests and diseases, and adaptation to urban environments. However, native trees such as valley, interior live and blue oaks are incorporated into developments if feasible.

As stated previously, although the urban forest provides carbon dioxide sequestration as long as trees remain alive, most of the stored carbon is released into the atmosphere through decomposition. Nonetheless, an urban forest can become an important storage site for CO_2 through tree planting and stewardship that increases canopy cover, as well as through strategic planting that cools urban heat islands and saves energy used for space heating and air conditioning.

Orchards and Vineyards

The County of Sacramento has an active agricultural community and part of that community maintains orchards. These orchards contribute to California's gross production of fruits and nuts. In addition to their economic role, there is also a biological role. Orchards provide food and habitat for insects, nesting/roosting for migrant avian species, protection for rodents and small mammals, and oxygen production.

SPECIAL STATUS SPECIES

For the purposes of this section, special status species include:

- Those that are listed as rare, threatened, or endangered by either the California Department of Fish and Game or the U.S. Fish and Wildlife Service;
- Most species that are candidates for either state or federal listing;
- species designated as "fully protected" or "species of special concern" by Fish and Game;
- Plant species designated as List 1B or 2 species by the California Native Plant Society (CNPS)
- Some other species that are tracked by the California Natural Diversity Database but do not fall into any of the categories cited above.

A list of special status species known to occur or that could occur within Sacramento County appears in Appendix C, along with information on regulatory status and habitat requirements. **Note that this Appendix has its own bibliography, apart from the bibliography provided for the EIR as a whole.** ~~The following website contains detailed information on each species listed in Appendix C: http://www.planning.saccounty.net/habitat-conservation/species-docs.html.~~ **The reader is also directed to the species accounts that can be found on the websites of the Department of Fish and Game and the Department of Fish and Wildlife (www.dfg.ca.gov and www.fws.gov.** Several groups of these species merit little further discussion here. For example, several rare plant and insect species occur only in the Delta panhandle of the county, where no land use changes are designated under the proposed General Plan Update or any of the alternatives. Vernal pool species are discussed collectively.

PROPOSED FRAMEWORK FOR MANAGEMENT OF BIOLOGICAL RESOURCES

Currently, within the County of Sacramento are a number of programs and projects in place which are working to manage the County's biological resources. Although not yet a cohesive County-wide framework, large established preserves could one day be managed to complement one another. The oldest of these is the American River Parkway, established in the 1950s. Although heavily used by numerous recreationists and commuters, the Parkway is managed to balance flood control needs with management of biological and recreational resources. South of the Parkway and centered in the County is the Vernal Pool Prairie Preserve which identifies a large area of vernal pools and associated uplands, some of which is protected by conservation easement and/or fee title ownership. In southern Sacramento County, the Cosumnes River Preserve protects an important reach of the Cosumnes River riparian area from the Delta upstream to just east of Highway 99. Here biological resources are managed primarily for the protection of wildlife and the continuation of agricultural uses. In the

County's southeast corner is Chance Ranch, which is protected by a conservation easement that protects low elevation oak woodland while accommodating cattle operations. In eastern Sacramento County is Deer Creek Hills which protects a large area of rolling blue oak woodland and grassland. To the west is the Stone Lakes National Wildlife Refuge established to protect the permanent and seasonal marshlands important for bird species migrating along the Pacific Flyway. Much of the undeveloped northwest corner of the County is included with in the Natomas Basin Habitat Conservation Plan which generally targets the protection of giant garter snake and Swainson's hawk habitat. Management plans for these aforementioned areas are either in process or in place.

The proposed policies in the Draft General Plan Update Conservation Element strengthen the 1993 Conservation Element by focusing on the diverse habitats and species throughout the County. Mitigation requirements seek to maintain and restore natural habitats and their functionality, with a general goal of creating larger preserves and wildlife corridors to facilitate species movement. The policies also promote development of project design in concert with natural features whenever possible to minimize environmental impacts.

SOUTH SACRAMENTO HCP

If adopted as currently envisioned, the **anticipated** SSHCP ~~will~~ **would** provide a comprehensive framework for managing biological resources within the SSHCP plan area, which is where much of the County's biological richness still remains. **As currently envisioned, t**he **anticipated** SSHCP **would articulate** ~~articulates~~ a conservation strategy to preserve and enhance large tracts of land and intact watersheds intended to sustain and eventually enhance habitats found within the SSHCP study area. The **envisioned** strategy **would** include~~s~~ the protection of large preserves within close proximity to one another that ~~will~~ **would** capture species populations across their range and provide connectivity by protecting habitat corridors. ~~Participation in the SSHCP, either to obtain authorization for covered activities or to offer real property or easements for sale is voluntary.~~ The **anticipated** SSHCP biological goals, objectives, and measures **as currently envisioned** were discussed previously under the Regulatory Setting.

SIGNIFICANCE CRITERIA

The significance of an environmental impact cannot always be determined through use of a specific quantifiable threshold. CEQA Guidelines Section 15064(b) affirms this by the statement: "An ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting." Except where a specific methodology is outlined in one of the sections below, significance of an impact to the biological resources discussed in this chapter rely on the policies, codes, and regulations described in the Regulatory Setting section, as well as the following CEQA Sections:

Section 15065:

(a) A lead agency shall find that a project may have a significant effect on the environment and thereby require an EIR to be prepared for the project where there is substantial evidence, in light of the whole record, that any of the following conditions may occur:

(1) The project has the potential to*:* substantially 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*;* substantially reduce the number or restrict the range of an endangered, rare or threatened species*;* or eliminate important examples of the major periods of California history or prehistory.

Section 15382:

"Significant effect on the environment" means 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. A social or economic change related to a physical change may be considered in determining whether the physical change is significant.

Standards for determining thresholds of significance were established based on the State CEQA Guidelines and professional standards. Impacts to biological resources were considered significant if the project would result in the following:

1. Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special-status-species in local or regional plans, policies, or regulations or by Fish and Game or Fish and Wildlife;

2. 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, and coastal wetlands) through direct removal, filling, hydrological interruption, or other means;

3. 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;

4. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or

5. Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or approved local, regional, or state habitat conservation plan.

SIGNIFICANCE CRITERIA: WETLAND AND RIPARIAN AREAS

The County has not defined nor does CEQA identify a quantifiable threshold of significance for wetland loss. However, the State CEQA guidelines and County policy were used to determine whether adoption of the draft General Plan Update would have a qualitatively significant impact on wetland resources. According to the CEQA Guidelines, a project would have a significant impact on wetlands if it would 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, and other seasonal and perennial wetlands) through direct removal, filling, and/or hydrological interruption. Federally protected wetlands are typically referred to as jurisdictional wetlands, that is, wetlands that fall under the jurisdiction of the federal government, namely, the US Army Corps of Engineers. Typically, a wetland is jurisdictional if hydrologic connectivity to a navigable waterway can be demonstrated. Wetlands that lack this connectivity are considered isolated and are not under the jurisdiction of the Army Corps. However, under County policy, isolated wetlands are an important biological resource and mitigation is required for loss. Under County policy any loss of wetland is a significant or potentially significant impact and mitigation is generally available to reduce wetland loss impact to less than significant. **Pursuant to CEQA,** ~~T~~**t**he fulcrum point for defining whether wetland impacts are significant despite mitigation rests on whether the impact is substantial.

SIGNIFICANCE CRITERIA: SPECIAL STATUS SPECIES

Species that are protected by state and federal laws have a significance criterion that provides guidelines for determining impacts. Generally, a project will have significant impacts on special status species if it substantially reduces the habitat of a fish or wildlife species, causes a fish or wildlife population to drop below self-sustaining levels, threatens to eliminate a plant or animal community, or substantially reduces the number or restricts the range of an endangered, rare or threatened species.

METHODOLOGY

Wetland and riparian impacts were evaluated using maps and data compiled ~~to develop~~ **as part of ongoing development of** the SSHCP. This information is GIS based and has been reviewed by state and federal regulatory biologists and other habitat specialists. Impacts within the Urban Services Boundary were considered by mainly using SSHCP ~~materials~~ **data**. To identify impacts in the New Growth Areas the boundary for each of the growth areas was overlaid on habitat maps to determine habitat extent and habitat loss.

Special status species impacts were evaluated using a geographic information systems (GIS) computer program. Multilayered maps were created in GIS using project location data, aerial photographs (from multiple seasons and years), SSHCP data, and species occurrence information from the California Natural Diversity Database. Areas were evaluated based on presence of suitable habitat, the amount and quality of habitat, and the distance from known species locations. GIS was also used to estimate distances from known species occurrences and calculate approximate areas of habitat. For the Commercial Corridors, the individual Corridors were reviewed in the same manner, although the boundaries of the Corridors were not precisely located in the same manner as the New Growth Areas.

Tree canopy impacts were evaluated using Sacramento County GIS aerial photography from 2006. The boundaries of each New Growth Area were overlaid on the aerial photographs to determine the extent of tree canopy within each area. For the Commercial Corridors, the individual Corridors were reviewed in the same manner, although the boundaries of the Corridors were not precisely located in the same manner as the New Growth Areas.

IMPACTS AND ANALYSIS

IMPACT: WETLAND AND RIPARIAN AREAS

PROPOSED POLICIES

The 1993 General Plan provided a series of policies to protect wetlands or mitigate impacts to wetlands, as well as a series of policies to protect riparian habitat or mitigate riparian habitat impacts. The Draft General Plan Update has mainly built upon, updated or modified wetland and riparian policies from the 1993 General Plan. However, it has also crafted new policies that were not part of the previous plan, and in some instances deleted policies that were part of the previous plan. In many instances the 1993 Plan combined wetland and riparian resource conservation into single policies, in other instances policies addressed either wetlands or riparian habitat. This same three-way

division of policies addressing wetland, riparian or both continues in the Draft General Plan Update.

Development activities associated with implementation of the Draft General Plan Update would result in the disturbance or loss of wetland and riparian areas, including freshwater marsh, seasonal wetlands, swales, seasonal impoundments, vernal pools, seasonal and mixed riparian scrub and woodland. Wetlands, both jurisdictional and non-jurisdictional could be affected through direct removal, filling, hydrological interruption, alteration of bed and bank, and other development-related activities. Although avoidance of wetland areas is preferred in growing Sacramento County, avoidance of wetland resources within the Urban Services Boundary is not always practicable.

In this EIR, impacts to wetland and riparian habitats are quantitatively addressed where possible and qualitatively in cases where reconnaissance surveys have not been conducted. Analysis is not based on parcel-specific information, because such detail is not available at the General Plan analysis level. As part of future project-level analyses, agencies and/or programs (**potentially the** SSHCP, Fish and Wildlife, the Army Corps, and Fish and Game) would review specific project site information relating to wetland impacts and determine specific compensatory mitigation for impacts to wetlands and/or riparian habitats. Draft General Plan policy CO-71 requires no net loss of these habitat types (existing policy CO-96). To meet this requirement numerous proposed policies provide local regulatory structure to mitigate for loss of wetland and riparian habitat so as to ensure no net loss.

The following analysis considers programmatic impact mitigation scenarios: 1) impact analysis procedures outside the SSHCP and NBHCP areas, and 2) impact analysis under the SSHCP**, if adopted as currently envisioned**. This division is necessary since local, state and federal policies, ordinances, and laws will apply County-wide prior to or absent of adoption of the SSHCP and will remain applicable north of U.S. Highway 50 after SSHCP adoption**, if adopted as currently envisioned**.

WETLAND AND RIPARIAN IMPACT MITIGATION OUTSIDE THE SSHCP AND NBHCP

For wetland and riparian impacts that are outside the existing Natomas Basin HCP (NBHCP) or proposed SSHCP area (**or in absence of the adoption of an SSHCP)**, impact analysis and recommendation of mitigation measures would continue to be on a project-by-project basis. This would include much of the urbanized areas to the north of U.S. Highway 50, where wetland and riparian habitat, excluding the American River Parkway, is generally more impacted by surrounding development. It also includes the Delta whose protection is not certain but is less prone to development pressures due to the threat of flooding and the area's rich peat soils prized for agricultural productivity. The same project-by-project review would occur south of U.S. Highway 50 if the SSHCP were not approved. For wetlands, developers would need to abide by mitigation measures defined by individual permits and/or agreements issued by the appropriate agencies. This type of methodology has been the norm in Sacramento County since at least the mid 1980s. Unfortunately, it has resulted in a patchwork of habitat mitigation

efforts that generally do a poor job of building cohesive and integrated high functioning ecosystems, thus limiting options for eventual species recovery.

In areas not covered by an HCP, and depending upon impacts, the applicant would need to obtain some or all of the following state and federal permits or compliance actions:

- Section 404, federal wetlands fill permit,
- Section 401, federal/state water quality compliance,
- Section 7, federal endangered species take permit,
- Section 2081, state endangered species take permit
- Section 1600, state streambed alteration agreement
- Section 106, state cultural resource compliance
- County Swainson's hawk ordinance fee
- County wetland mitigation/compensation fee
- Section 106, federal Historic Preservation Act

Impacts to riparian habitat would continue to be considered under the current process, which relies on federal, state and County regulations to analyze and minimize impacts to wetlands, and CEQA guidelines and County policy to analyze and minimize impacts to the vegetative component of the riparian area.

As with the current process, the applicant would need to demonstrate no net-loss by providing evidence that permits have been obtained, agreements made, and/or mitigation fees paid prior to the issuance of any grading and/or building permits.

WETLAND AND RIPARIAN HABITAT IMPACT MITIGATION UNDER AN SSHCP

Projects utilizing ~~the~~ **an** SSHCP**, if published and adopted as currently envisioned,** would benefit from the programmatic permits held by one of the five jurisdictions. Projects not utilizing the **anticipated** SSHCP or outside of the **anticipated** SSHCP area (excluding the NBHCP) would be subject to conditions of individual federal permits, state agreements and County policy and/or ordinances pursuant to current procedures. Wetland and riparian impacts could be mitigated by payment of a per-acre fee based on the number of acres developed and habitat type lost. Participation would not negate the need to provide the County with a wetland delineation and species survey of the project site. The delineation would be required to calculate wetland acre impacts and associated impact fee. **It is anticipated that t**he fees would be bundled to purchase habitat by fee title or wildlife easement, and to undertake habitat restoration.

To ensure habitat mitigation is fulfilling the requirements of the issued state and federal permits, the **intent of the anticipated** SSHCP **would be to** provide~~s~~ methodologies to monitor habitat preservation and restoration actions. Once mitigation **was** ~~is~~

implemented habitat managers **would** need information on how the measures ~~are~~ perform~~ing~~. Monitoring data would **need to** be used to verify proper compliance with the **anticipated** SSHCP and to determine whether biological goals and objectives **were** ~~are~~ being met. If not met, the **intent of the anticipated** plan would **be to** identify adaptive management measures to comply with **anticipated** SSHCP goals and objectives.

Although the SSHCP is anticipated to be a fundamental component of the County's long-range plan, **it has not been published at the time of this writing** ~~it is a voluntary program and it is a draft document~~. ~~The first series of public hearings on the project are anticipated to begin in January 2010 and final hearing is targeted for early 2011. If adopted , it is likely most applicants pursuing development in the UDA will opt to participate in the plan instead of negotiating separately with state and federal regulators. The County's long-standing Swainson's hawk ordinance has been a voluntary program and few, if any, projects have opted to go through the uncertainty, in terms of cost and time, of negotiating separately with state wildlife regulators.~~

As with the current process, **even under the anticipated SSHCP it is expected that** the applicant would need to provide evidence that permits have been obtained (Army Corps) and/or fees paid (SSHCP) prior to the issuance of any grading and/or building permits.

SIGNIFICANCE DETERMINATION ON IMPACTS TO WETLANDS AND RIPARIAN HABITAT FROM PROPOSED POLICIES

The purpose of the policies proposed in the Draft General Plan Update are to provide guidance on mitigation strategies and requirements, which are beneficial measures, and will not result in substantial adverse effects on any wetlands or riparian areas; impacts to wetland and riparian habitats are *less than significant*.

NEW GROWTH AREAS

JACKSON HIGHWAY CORRIDOR NEW GROWTH AREA

The Jackson Highway Corridor New Growth Area is a mix of residential, agricultural-residential, grazing, vernal pool preserve, industrial, and aggregate mining uses. Prominent land uses, as seen from Jackson Highway, are aggregate mining and grazing. Plate **BR-4** shows the proposed Jackson Highway Corridor New Growth Area with a wetland habitat overlay. The area is traversed by the middle reaches of Morrison and Laguna Creeks and their tributaries. Sizeable portions are carpeted with vernal pools, especially a broad swath generally following Laguna Creek. The Sacramento Valley Conservancy's Prairie Preserve anchors the Jackson Highway vernal pool landscape and protects a mosaic of pools, swales and creeks. The area contains approximately 293 acres of wetlands, 43.5 acres of riparian habitat, and 53 acres of streams and creeks.

GRANT LINE EAST NEW GROWTH AREA

The Grant Line East New Growth Area is a 8,147-acre area of mostly undeveloped grazing land adjacent to and east of the Sunrise-Douglas Specific Plan area. Plate BR-5 shows the proposed Grant Line East New Growth Area with a wetland habitat overlay. The area contains the upper reaches of both Morrison and Laguna Creeks and their tributaries, along with tributaries to Deer Creek. Vernal pools are scattered throughout, though higher densities appear nearer the area's western edge. Small portions of the Grant Line East area abut the Sunrise-Douglas vernal pool preserve and protected areas on the north side of the County's landfill. The clusters of vernal pools that align with upper Morrison Creek in the Sunrise/Douglas area were specifically identified as aquatic resources of national importance by the US EPA. It is possible that the eastward extension of this linear cluster into the Grant Line East area will also be identified as aquatic resources of national importance. This designation effectively elevates the importance of preserving such wetlands on-site by all participating federal agencies, and may require additional consultation between the national offices of US EPA and Army Corps. This area contains approximately 192 acres of wetlands, 205 acres of riparian habitat, and 29 acres of streams and creeks.

WEST OF WATT NEW GROWTH AREA

This area is sandwiched between residential and commercial services adjacent to the west side of Watt Avenue and the rural residential uses adjacent to the east side of the Dry Creek Parkway and McClellan Park. The area is traversed by a few seasonal drainages as well as Sierra and Rio Linda Creeks which both drain into Dry Creek. Riparian along the creeks is limited. Seasonal wetlands are sparsely scattered throughout the area though actual wetted acreage is anticipated to be low, except for one ponding feature just west of Watt Avenue and north of Don Julio Avenue. No wetland reconnaissance has been conducted for the area, thus habitat acreage figures are not provided.

EASTON PLANNING AREA

The Easton Planning Area is different from the other New Growth Areas identified in the General Plan Update in that a detailed project proposal was submitted to the County, and approved, (Control Number: 04-GPB-ZOB-SDP-AHS-0035) well in advance of the Draft General Plan Update. The Easton project is subject to 1993 General Plan policies, and an Environmental Impact Report was prepared to analyze its impacts pursuant to those policies. The Easton General Plan Amendment project was approved by the Board of Supervisors in December 2008.

The northern portion of the Easton area has a canopy of blue oaks with a thick line of riparian habitat along Alder Creek, which parallels U.S. Highway 50 (Plate **BR-6**). Alder Creek is a tributary of the American River. The balance of the project site is disturbed, having either been used as an area to place dredge tailings from gold mining in and around the American River or as an extensive industrial area for operations related to Aerojet, a defense contractor. Between some of the tailing piles are groves of cottonwoods that have taken root in the ponds that form between the linear piles. The

cottonwood groves growing within the linear gullies of the tailing piles are included as riparian acreage because the groves contain similar habitat values to riparian. According to the Final Environmental Impact Report (FEIR), development of the 1,391-acre Easton project area would result in the loss of 8.6 acres of wetlands and other potential waters of the U.S. and 7 acres of riparian woodland habitat.

SIGNIFICANCE DETERMINATION ON IMPACTS TO WETLAND AND RIPARIAN HABITATS IN NEW GROWTH AREAS

Wetlands and riparian habitat are distributed throughout the New Growth Areas, particularly the two largest, in relatively high densities. In most of these New Growth Areas, existing urban uses are either minimal or near-absent, and as a result many of these wetland assemblages and riparian areas are of higher quality. Though both the existing and the proposed General Plan contain policies requiring mitigation for the loss of wetland and riparian resources, the potential loss within these large portions of the County is substantial. Impacts are considered *significant and unavoidable*.

Plate BR-4 Jackson Highway Corridor Habitats

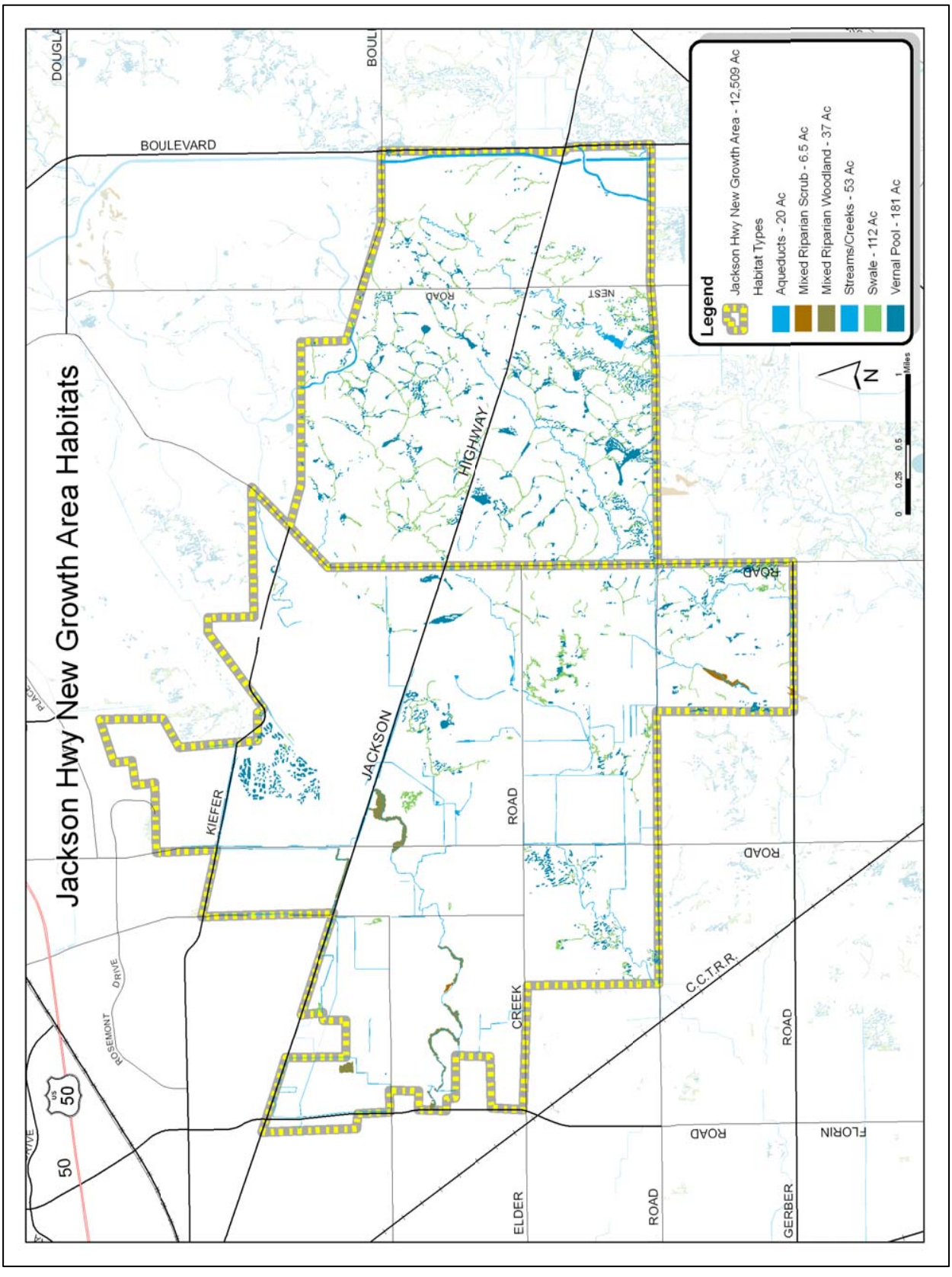


Plate BR-5 Grant Line East Habitats

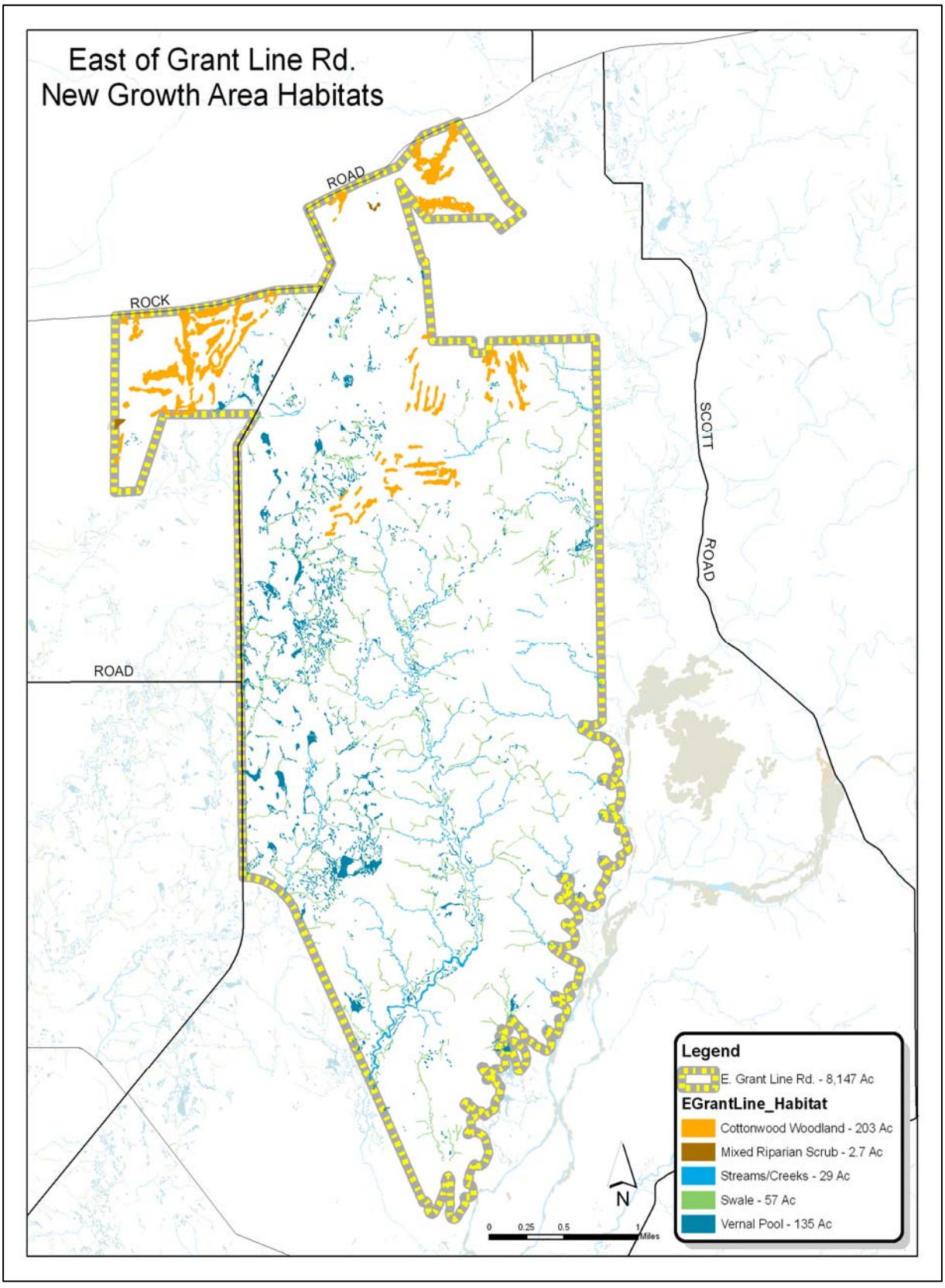
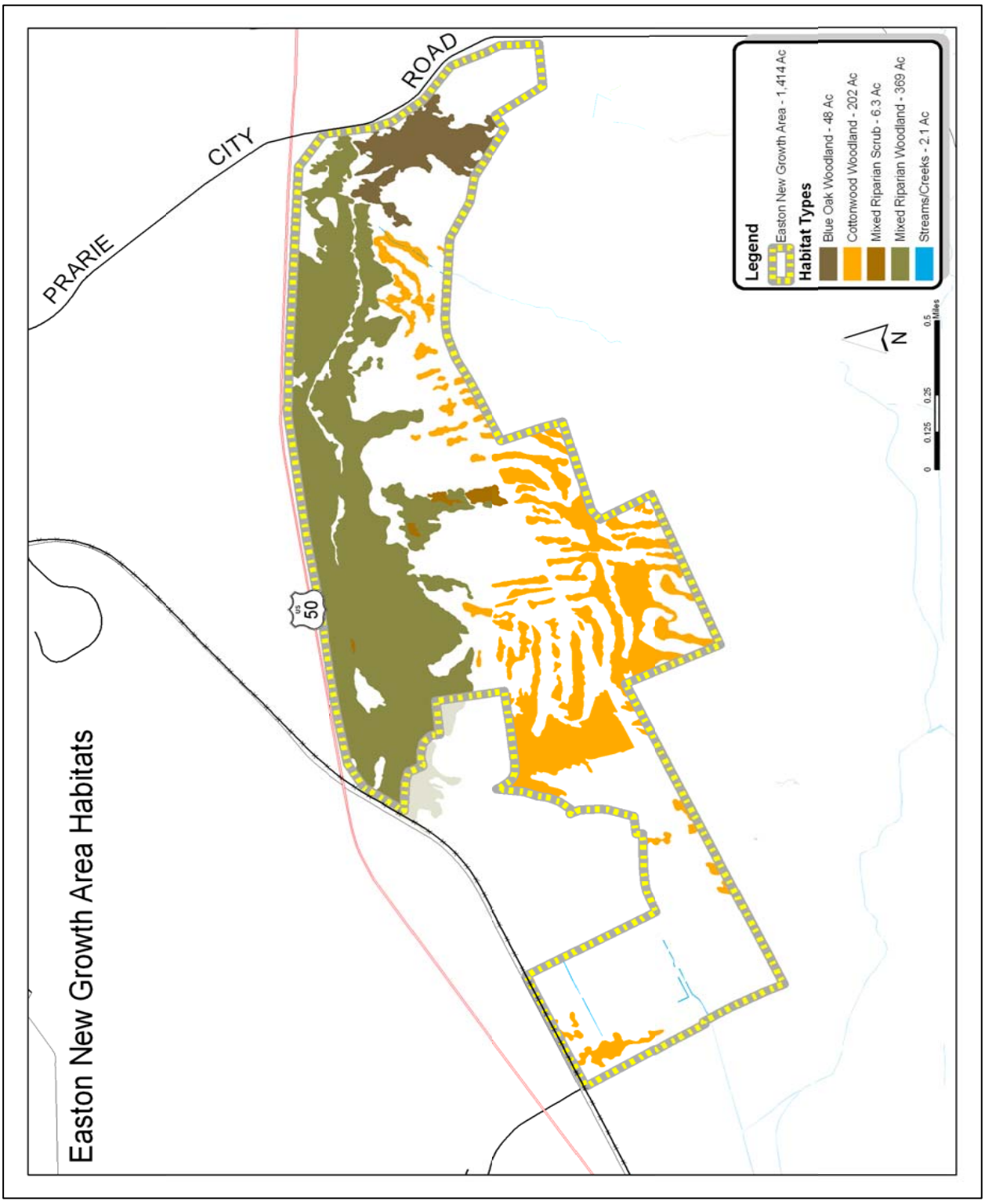


Plate BR-6 Easton Planning Area Wetland and Riparian Habitat



BUILDOUT OF PLANNED COMMUNITIES

Each of the master planning areas that the Project assumes will reach buildout by 2030, including Elverta, East Antelope, Vineyard Springs, North Vineyard Station, and Florin Vineyard 'Gap', included an EIR analysis of biological resources and the inclusion of mitigation measures as part of their approval. Compliance with these existing mitigation measures will ensure that impacts are reduced the maximum amount feasible. Nonetheless, the cumulative effect of buildout of these disparate areas will be substantial losses of wetland and riparian habitats within these portions of the County; impacts are *significant and unavoidable*.

COMMERCIAL CORRIDORS AND RESIDENTIAL INFILL

The Commercial Corridors undergoing planning to revitalize older commercial areas are heavily urbanized and likely have little wetland or riparian habitat. In most cases the natural habitat of these areas was converted to urban uses decades ago. The case is similar for residential infill. The bulk of these infill parcels are quite small themselves – a few acres at most – and are scattered throughout the existing urbanized environment. DERA staff experience has shown that any wetlands in these areas tend to be small and isolated remnants of low quality habitat. The total losses from implementation of the Commercial Corridors and infill strategies is likely to be small, and the no-net loss policy of the General Plan will ensure that their loss will be replaced. In many cases, the replacement habitat will be of higher quality and habitat connectivity than the acreage lost. Impacts are *less than significant*.

MITIGATION MEASURES:

General Plan policies and existing regulations provide all feasible protection and mitigation for wetland and riparian habitat. No mitigation is recommended.

IMPACT: SPECIAL STATUS SPECIES

The Regulatory Setting section describes the various regulations that protect the special status species discussed in the sections to follow. Pursuant to these, the regulatory agencies publish protocols and similar documents that describe the habitat requirements, protective measures, and mitigation measures applicable to special status species. These measures are not imposed at the General Plan level, because project-level details are necessary to determine the appropriate level of mitigation that is required. The discussions below describe the type of mitigation typically required to offset impacts to the special status species under discussion. This mitigation will be imposed through the CEQA documents that are required at the master planning and project-level phase of development, pursuant to the published regulations in effect at the time.

PROPOSED POLICIES

The Draft General Plan Update includes the following new or amended policies which will strengthen and complement the existing Conservation Element: CO-72, CO-80, CO-106, CO-108, CO-117, CO-118, CO-120, CO-121, CO-122, CO-149, CO-152, CO-153, CO-154, CO-155, and CO-156.

The overall intent of these new policies is to retain the existing natural habitats where possible, improve habitat function by linking a network of preserves to facilitate wildlife movement, require in-kind mitigation for loss of habitat function, and restore natural habitats to their original function by removal of invasive species and planting native species. These new policies have a goal of improving the diverse habitat types in the County which will enhance their viability and ecological integrity for the special status species that use them. These policies will not have an adverse impact on special status species. Impacts on special status species resulting from the proposed policies are *less than significant*.

MITIGATION MEASURES:

None recommended.

IMPACTS TO SPECIAL STATUS SPECIES IN THE NEW GROWTH AREAS

Development occurring within areas that have previously been developed, such as Corridors and residential infill, tends to have less of an impact on listed species than development occurring within completely undeveloped sites such as the New Growth Areas proposed in the General Plan Update.

The New Growth Areas have a considerable amount of contiguous undeveloped land that provides habitat for listed species to persist within an area. These vast tracts of land are more likely to provide adequate food, water, and shelter and less likely to suffer from urban impacts (deterioration of water quality, competition from non-native species, disruption of migrating corridors, direct mortality from vehicular collisions, etc.). The reduction in size of habitat reduces a species' ability to persist in an area, and will eventually lead to the area being uninhabitable or detrimental to those that remain. Plants or animals attempting to survive in these substandard habitats are not able produce offspring, and eventually die without contributing to the overall population. The development of the New Growth Areas will contribute toward the cumulative impact associated with the decline of listed species by removing large areas of listed species habitat and create smaller isolated pieces of substandard habitat.

JACKSON HIGHWAY CORRIDOR NEW GROWTH AREA

The proposed Jackson Highway Corridor New Growth Area is a large area with varying land uses. Existing land uses include agricultural urban reserve, extensive industrial, and general agriculture. Much of the land consists of large parcels (20 – 80 acres) with a single farm house. Agriculture (row crops and grazing) and aggregate mining are the

most common activities within the New Growth Area. The New Growth Area has expansive grasslands, croplands, streams (Elder Creek and Morrison Creek), mixed riparian vegetation, and scattered native and ornamental tree species. Possible future land uses could include low density housing, mixed use, and commercial.

AMERICAN BADGER

According to the CNDDB, there are records of American badger detected within the Jackson Highway Corridor New Growth Area and on adjacent lands. Badgers require large (100 – 1,000 acres) amounts of land (such as grasslands and agricultural land) for denning and foraging. The development of the New Growth Area will reduce open fields and eliminate badger habitat, causing the local extirpation of the badger in the New Growth Area and contributing to the cumulative impacts associated with the decline of the species. Because of the large acreages required to support badger, creation and or replacement of badger habitat is not feasible; therefore, the cumulative impacts are considered significant and unavoidable. Badgers are most likely to be killed when they are denning with immobile pups. Mitigation measures avoiding impacts to denning badger with pups will be required to reduce impacts to American badger, but impacts cannot be reduced to a less-than-significant level. Impacts are *significant and unavoidable*.

RINGTAIL

Ringtails are strongly associated with large continuous stands of riparian forest. Forested riparian areas within this New Growth Area are narrow (50 – 140 feet wide) and non-continuous. The small fragmented riparian areas within the New Growth Area are not likely to provide enough acreage to support a population of ringtail; therefore, the proposed urban development of the Jackson Highway Corridor New Growth Area is not likely to impact ringtails. Impacts are *less than significant*.

COOPER'S HAWK

Cooper's hawks typically nest and forage in forested areas or heavily treed urban areas. Past activities within the New Growth Area have removed trees and many of the soils in the area are shallow with an impermeable clay layer that does not support tree establishment. Because the Jackson Highway Corridor New Growth Area only contains a very limited amount of wooded areas, it does not have a significant amount of habitat to support Cooper's hawk. Due to the lack of Cooper's hawk habitat, the proposed urban development of the Jackson Highway Corridor New Growth Area is likely to have a *less-than-significant* impact on Cooper's hawk.

LOGGERHEAD SHRIKE

The Jackson Highway Corridor New Growth Area contains suitable loggerhead shrike nesting and foraging habitat in the pasture and agricultural lands. Shrikes use shrubs such as baccharis bushes, wild rose, and blackberry for roosting, perching, and nesting. Grazed pasture, agricultural crops and mowed fields provide foraging habitat. The

removal of shrubs and conversion of grazed pastures and agricultural land to residential and commercial uses removes foraging and nesting habitat necessary to sustain a population of loggerhead shrike. The development of the New Growth Area will result in the loss of foraging habitat, causing the local extirpation of the loggerhead shrike and contributing to the cumulative impacts associated with the decline of the species. Impacts to loggerhead shrike in the New Growth Area are cumulatively significant and unavoidable. Impacts can be reduced with mitigation requiring preconstruction surveys for active nests and avoidance if they are found, but not to a less-than-significant level. Impacts are *significant and unavoidable*.

NORTHERN HARRIER

The Jackson Highway Corridor New Growth Area contains suitable foraging and nesting habitat for northern harrier in the form of grasslands, wetlands, and agricultural crops. The conversion of grazed pastures and agricultural land to residential and commercial uses removes foraging habitat necessary to sustain a population of northern harrier. The development of the New Growth Area will result in the loss foraging and nesting habitat, causing the local extirpation of the northern harrier and contributing to the cumulative impacts associated with the decline of the species. Impacts to northern harrier in the New Growth Area are cumulatively significant and unavoidable. Impacts can be reduced with mitigation requiring preconstruction surveys for active nests and avoidance if they are found, but not to less-than-significant levels. Impacts are *significant and unavoidable*.

SWAINSON'S HAWK

The Jackson Highway Corridor New Growth Area contains suitable nesting trees and foraging habitat for Swainson's hawk in the form of grazed pastures and agricultural crops. There are three historic Swainson's hawk nests that are less than three miles from the New Growth Area. The conversion of grazed pastures and agricultural land to residential and commercial land uses removes foraging habitat necessary to sustain a population of Swainson's hawk. The development of the New Growth Area will result in the loss of foraging habitat, causing the local extirpation of the Swainson's hawk and contributing to the cumulative impacts associated with the decline of the species. Mitigation through preservation and/or habitat creation and the avoidance of active nests may be able to reduce, but not eliminate, significant impacts to Swainson's hawk associated with the development of the Jackson New Growth Area. This mitigation is required by regulations of Fish and Game, and mitigation fees are implemented through the Sacramento County Swainson's Hawk Ordinance. Impacts are *significant and unavoidable*.

TRICOLORED BLACKBIRD

According to CNDDB, the Jackson Highway Corridor New Growth Area has eight historic occurrences of nesting tricolored blackbird colonies. Tricolored blackbirds require three types of habitat: open water, vegetative thickets, and large open fields or agricultural lands. The loss of one of the above habitats can cause the local extirpation

of the tricolored blackbirds. To date, no studies have been performed that provide a minimum acreage for sustaining tricolored blackbird; however, colonies with less than 200 – 300 acres of foraging habitat do not persist and access to several thousand acres is necessary to maintain most large colonies (Hamilton 2004). The development of the Jackson New Growth Area will eliminate tricolored blackbird habitat, cause local extirpation of the tricolored blackbird and contribute to the cumulative impacts associated with the decline of the species. Impacts can be reduced through mitigation requiring preconstruction surveys and active nest avoidance, but not to a less-than-significant level. The impacts from development of the Jackson Highway Corridor New Growth Area to tricolored blackbird remain *significant and unavoidable*.

WESTERN BURROWING OWL

According to the CNDDB, there are historic nest sites for burrowing owl within the New Growth Area. Undeveloped open areas, mounds of dirt, frequently mowed fields and drainage canal banks provide suitable burrowing owl habitat. Burrowing owls prefer open fields with short vegetation for foraging and with mammal burrows, which are used for nesting and roosting. The conversion of agricultural land and grazed pasture to residential and commercial uses will eliminate burrowing owl habitat and will cause local extirpation of the owl and contribute to the cumulative impacts associated with the decline of the species. Owls are most likely to be killed when they are nesting with immobile eggs or chicks. Significant impacts (according to CEQA and CESA) occur if the project causes the direct mortality or injury to the animal. Mortality is most likely to occur with the destruction of an active nesting burrow (i.e. with eggs or chicks). Individual impacts can be reduced to less than significant with mitigation requiring preconstruction surveys for active natal burrow, but the impact is cumulatively *significant and unavoidable*.

WHITE-TAILED KITE

According to the CNDDB, there are historic nest sites for white-tailed kite. White-tailed kite require foraging areas such as open fields and agricultural fields. The development of the Jackson New Growth Area will eliminate white-tailed kite foraging habitat, cause local extirpation of the kite and contribute to the cumulative impacts associated with the decline of the species. Impacts can be reduced through mitigation requiring preconstruction surveys and active nest avoidance, but not to a less-than-significant level. The impacts from development of the Jackson Highway Corridor New Growth Area to white-tailed kite remain *significant and unavoidable*.

GIANT GARTER SNAKE

The giant garter snake has not been detected in the Jackson New Growth Area and the nearest CNDDB location is over five miles to the south. There is not a significant canal system in the New Growth Area to supply aquatic habitat and many of the drainages are dry during the snake active season from May to October. The snake is more commonly found in the lower reaches of the watershed, in the basin areas, with year-round water supply and greater amounts of emergent vegetation. Due to the lack of snake habitat

within the Jackson New Growth Area, impacts to giant garter snake from the proposed urban development are *less than significant*.

NORTHWESTERN POND TURTLE

Northwestern pond turtles can be found within the creeks, and associated drainages within the Jackson New Growth Area. Turtles require a year-round water supply and basking habitat along the drainage. If the development of the New Growth Area results in the loss and degradation of local streams and associated drainages, then development will cause the local extirpation of the northwestern pond turtles and contribute to the cumulative impacts associated with the decline of the species. Impacts to pond turtles in the New Growth Area are *significant and unavoidable*.

WESTERN SPADEFOOT

According to the CNDDB, western spadefoot ~~toads~~ have been detected approximately 0.1 mile north of the Jackson New Growth Area. The vernal pool complexes within the area are suitable spadefoot habitat. The development of the New Growth Area will result in the destruction of vernal pool habitat, cause the local extirpation of the spadefoot and contribute to the cumulative impacts associated with the decline of the species. Spadefoot ~~toads~~ spend most of their lives in upland burrows; therefore, avoidance is not a practical measure when developing a property in spadefoot habitat. Development of the Jackson New Growth Area will have *significant and unavoidable* impacts to spadefoot ~~toads~~.

VALLEY ELDERBERRY LONGHORN BEETLE

The valley elderberry longhorn beetle (VELB) requires the elderberry shrub for habitat. Past activities within the New Growth Area cleared vegetation to create farmland, gravel mining, roads, and re-aligned creeks. In addition, some of the soils in New Growth Area are shallow with an impermeable clay layer that does not support shrub establishment. As a result of past activity and soil conditions, the Jackson New Growth Area does not have stands of elderberry bushes that are necessary to support a population of VELB, but instead has isolated individual shrubs. These isolated shrubs are not typically considered to provide viable habitat for VELB (USFWS 1998, Collinge et al. 2001). Where elderberry shrub removal is necessary, mitigation through preservation and/or habitat creation can be used to reduce impacts to less than significant. Due to the lack of significant VELB habitat the proposed urban development of the Jackson New Growth Area is expected to have a *less than significant* impact on VELB.

VERNAL POOL SPECIES

The Jackson New Growth Area contains vernal pool complexes which are a combination of upland grasslands and depressions that hold water during the rainy season. Many listed vernal pool species are dependent on both the pools and the upland environments to complete their life cycles. For example, many vernal pool plants are pollinated by insects from the surrounding grasslands. Tiger salamander and

spadefoot reproduce in the pool, but live in the uplands. There are approximately 1,300 acres of vernal pool complexes in the Jackson New Growth Area that are preserved through conservation easements, fee titles, mitigation banks, and government policy. Not all of the preserves are protected in perpetuity and may be developed. The U.S. Fish and Wildlife Service designated approximately 1,084 acres of area within the New Growth Area as critical vernal pool habitat. Approximately 2,500 acres of vernal pools are unprotected. The large number of pools, size of the complexes, and contiguous nature of the vernal pool complexes within the Jackson New Growth Area make this area biologically significant. Development that removes vernal pools, fragments vernal pool complexes, and alters hydrology and vernal pool vegetation causes significant impacts to vernal pool habitat. According to the CNDDB many vernal pool dependent species have been found near or within the New Growth Area. The loss of vernal pool habitat in the Jackson New Growth Area will cause local extirpation and contribute to the cumulative impacts associated with the decline of California linderiella, Ricksecker's water scavenger beetle, vernal pool tadpole shrimp, vernal pool fairy shrimp, mid-valley shrimp, legenere, dwarf downingia, Boggs Lake hedge-hyssop, Sacramento orcutt grass, slender orcutt grass, and pincushion navarretia. Impacts to listed vernal pools species in the New Growth Area are significant and unavoidable. Mitigation through preservation and/or habitat creation may be able to reduce, but not eliminate, significant impacts on vernal pool species associated with the proposed urban development of the Jackson New Growth Area. Impacts are *significant and unavoidable*.

NORTHERN CALIFORNIA BLACK WALNUT

The Northern California black walnut can be found at various locations throughout the Jackson New Growth Area. Black walnut trees were used as root stock for propagating white walnut tree trees and because of this black walnuts can be found on old farmsteads, and in abandoned orchards. Black walnuts can also be found along creeks and drainages where the vegetation has not been removed. The majority of black walnut trees found in the New Growth Area are single isolated trees; there are no known stands of Northern California black walnuts within the Jackson New Growth Area. Where black walnut tree removal is necessary, mitigation through preservation and/or habitat creation can be used to reduce impacts to less than significant. Due to the lack of significant stands of Northern California black walnut, the proposed urban development of the Jackson New Growth Area is expected to have a *less than significant impact* on Northern California black walnut.

SANFORD'S ARROWHEAD

Habitat for Sanford's arrowhead can be found within the creeks and associated drainages within the Jackson New Growth Area. Sanford's arrowhead is an aquatic plant that requires water during the spring and early summer. If the development of the New Growth Area results in the loss and degradation of local streams and associated drainages, then development will cause the local extirpation of the Sanford's arrowhead and contribute to the cumulative impacts associated with the decline of the species. Mitigation through preservation and/or habitat creation may be able to reduce, but not eliminate, significant impacts to Sanford's arrowhead associated with the proposed

urban development of the Jackson New Growth Area. Impacts are *significant and unavoidable*.

GRANT LINE EAST NEW GROWTH AREA

The area of proposed urban development east of Grant Line Road is currently designated as general agriculture. The land consists of mostly open grassland with flat topography in the western half and rolling hill in the eastern half. There are areas of mine tailings (mounds of cobble) with willows and cottonwoods between the mounds. The majority of the land is grazed. There are four active aggregate mines in the area. The mine landscapes consist of bare excavated areas and vegetation-free settling ponds. Very few biological surveys have occurred in this area; therefore, the presence of some listed species is not known, but can be inferred due to the presence of suitable habitat.

Many of the habitat requirements and existing mitigating regulations for various species have been discussed previously and will not be repeated in this section. In this case only the potential for the species to occur and the impact will be stated.

AMERICAN BADGER

According to the CNDDB, there are records of American badger detected within 2.5 miles of the Grant Line East New Growth Area. Badger habitat is present in this area. The development of the New Growth Area will reduces open fields and eliminate badger habitat, causing the local extirpation of the badger in the New Growth Area and contributing to the cumulative impacts associated with the decline of the species. Impacts are *significant and unavoidable*.

RINGTAIL

Ringtails in the Sacramento Valley are associated with large continuous stands of riparian forest (Belluomini & Trapp 1984). Deer Creek, Coyote Creek and Carson Creek all have significant wooded riparian areas; however, all were outside of the Grant Line East New Growth Area. In addition, the mine tailing cottonwood woodlands are not connected to a forested riparian corridor, therefore, presence of ringtail was assumed to be unlikely. Ringtail could use the Grant Line East New Growth Area for dispersal routes between the Deer Creek area and American River drainages. Because of the lack of riparian forest, the presence of ringtail in the Grant Line East New Growth Area was considered unlikely and thus the proposed urban development of the Grant Line East New Growth Area was not likely to impact ringtails. Impacts are *less than significant*.

COOPER'S HAWK

Cooper's hawks typically nest and forage in wooded areas or heavily treed urban areas and are likely to be found in the Grant Line East New Growth Area in the cottonwood woodlands (approximately 203 acres, Plate BR-5) that have grown in

mine tailings created by dredge mining. The remaining habitat in the Grant Line East New Growth Area is open prairie less suitable for Cooper's hawk foraging methods (ambush/explosive pursuit) and nesting requirements (trees). Most of the soils in the area are shallow with an impermeable clay layer that does not support the establishment of trees. The removal of wooded areas would eliminate some potential nesting and foraging habitat for Cooper's hawk within the Grant Line East New Growth Area. However, because the wooded areas constitute less than 3 percent of the total acreage of this new growth area, and are also in close proximity to existing surface mining operations and the disturbed area associated with the Prairie City State Vehicular Recreation Area which reduces their habitat value, impacts to Cooper's hawk are considered *less than significant*.

LOGGERHEAD SHRIKE

The Grant Line East New Growth Area contains suitable loggerhead shrike nesting and foraging habitat in the undeveloped grasslands. The development of the New Growth Area will result in the loss of foraging habitat causing the local extirpation of the loggerhead shrike and contributing to the cumulative impacts associated with the decline of the species. Impacts are *significant and unavoidable*.

NORTHERN HARRIER

The Grant Line East New Growth Area contains suitable foraging habitat and nesting habitat for northern harrier in the form of grasslands, and wetlands. The development of the New Growth Area will result in the loss of foraging and nesting habitat causing the local extirpation of the northern harrier and contributing to the cumulative impacts associated with the decline of the species. Impacts are *significant and unavoidable*.

TRICOLORED BLACKBIRD

According to CNDDB, there are occurrences of nesting tricolored blackbird colonies within one mile of the Grant Line East New Growth Area. Tricolored blackbird habitat is present in this area. The development of the Grant Line East New Growth Area will eliminate tricolored blackbird habitat, cause local extirpation of the tricolored blackbird and contribute to the cumulative impacts associated with the decline of the species. Impacts are *significant and unavoidable*.

SWAINSON'S HAWK

The Grant Line East New Growth Area contains suitable foraging habitat for Swainson's hawk in the form of grazed pastures. The development of the New Growth Area will result in the loss foraging habitat, cause the local extirpation of the Swainson's hawk and contribute to the cumulative impacts associated with the decline of the species. Impacts are *significant and unavoidable*.

WESTERN BURROWING OWL

According to the CNDDB, there are historic nest sites for burrowing owl within the Grant Line East New Growth Area. Burrowing owl habitat is present in this area. The conversion of agricultural land and grazed pasture to residential and commercial uses will eliminate burrowing owl habitat, cause local extirpation of the owl and contribute to the cumulative impacts associated with the decline of the species. Impacts are *significant and unavoidable*.

WHITE-TAILED KITE

According to the CNDDB, there are historic nest sites for white-tailed kite less than one mile from the New Growth Area. Habitat is present in this area. The development of the Grant Line East New Growth Area will eliminate white-tailed kite foraging habitat, cause local extirpation of the kite and contribute to the cumulative impacts associated with the decline of the species. Impacts are *significant and unavoidable*.

GIANT GARTER SNAKE

The giant garter snake has not been detected in the Grant Line East New Growth Area and the nearest CNDDB location is over 13 miles to the south. There is not a significant amount of year-round water supply in the drainages or canals within the New Growth Area to supply snake aquatic habitat during the snake active season from May to October. Due to the lack of snake habitat within the Grant Line East New Growth Area no impacts to giant garter snake are anticipated from the proposed project. Impacts are *less than significant*.

NORTHWESTERN POND TURTLE

Northwestern pond turtles are likely to be found in ponds and creeks with year-round water supplies. Habitat within the Grant Line East New Growth Area includes stock ponds and creeks that have persistent pools during the dry season. There are documented occurrences of pond turtle in Alder Creek approximately two miles north of the project (ECORP 2005a) and in Deer Creek (Sacramento County Department of Environmental Review 2004) which is along the southern boundary of the New Growth Area. There are CNDDB occurrences just over ½ mile from the New Growth Area. If development of the New Growth Area results in the loss and degradation of turtle habitat, then development will cause the local extirpation of the northwestern pond turtles and contribute to the cumulative impacts associated with the decline of the species. Impacts are *significant and unavoidable*.

WESTERN SPADEFOOT

According to biological surveys documented in the draft South Sacramento HCP spadefoot ~~toad~~ has been documented within the large vernal pool complex in the Grant Line East New Growth Area. Development of the area that results in the loss and degradation of the vernal pool complex, seasonal wetlands, drainages, grassland and shrub lands, will have a significant impact on spadefoot. Development will cause the

local extirpation of the spadefoot and contribute to the cumulative impacts associated with the decline of the species. Impacts are *significant and unavoidable*.

VERNAL POOL SPECIES

The Grant Line East New Growth area contains vernal pool complexes which have water filled pools during the rainy season with upland grasslands in between the pools. There are approximately 2,090 acres of vernal pool complexes within the New Growth Area. There are no preserved vernal pool areas within the New Growth Area. The large number of pools, size of the complexes, and contiguous nature of the vernal pool complexes within the Grant Line East New Growth Area make this area significant habitat for listed species. There are CNDDB records and other published occurrences of California linderiella (CNDDB), vernal pool fairy shrimp (CNDDB), Sacramento orcutt grass (CNDDB) and Boggs Lake hedge-hyssop. Other species likely to occur within vernal pools include: vernal pool tadpole shrimp, mid-valley shrimp, legenere, dwarf downingia, slender orcutt grass, and pincushion navarretia. Development that removes vernal pools, fragments vernal pool complexes, alters hydrology, and alters vernal pool vegetation will causes significant impacts to vernal pool habitat. The loss of vernal pool habitat in the New Growth Area will cause local extirpation of the listed vernal pool species and contribute to the cumulative impacts associated with the decline of the species. Impacts are *significant and unavoidable*.

VALLEY ELDERBERRY LONGHORN BEETLE

The valley elderberry longhorn beetle (VELB) requires the elderberry shrub for habitat. The majority of habitat within the Grant Line East New Growth Area is grassland which does not typically support a significant amount of shrubs. However, elderberry bushes have been located in significant numbers, within mine tailings (Yost Property Surface Mining EIR 1988 and American River Aggregates East Mining Site EIR 1995), and White Rock Road (White Rock Road Widening Project EIR 2008). Elderberry shrubs are likely to occur along riparian areas adjacent to creeks and ponds. Isolated individual shrubs are not typically considered to provide viable habitat for VELB (USFWS 1998, Collinge et al. 2001). Development that removes isolated elderberry bushes lacking evidence of VELB would have a less than significant impact on VELB when mitigated. The development of mine tailings has the potential to impact VELB because it could remove aggregate patches of elderberry bushes. If the patches of elderberry bushes have VELB, then development will cause a significant impact on VELB. Where elderberry shrub removal is necessary mitigation through preservation and/or habitat creation can be used to reduce impacts to *less than significant*.

NORTHERN CALIFORNIA BLACK WALNUT

The Northern California black walnut is not likely to naturally occur within the Grant Line East New Growth Area because the majority of the area is grasslands, which typically do not support the establishment of trees. If black walnut tree removal is necessary, mitigation through preservation and/or habitat creation can be used to reduce impacts to *less than significant*.

SANFORD'S ARROWHEAD

Sanford's arrowhead is likely to be found within the creeks, and associated drainages within the Grant Line East New Growth Area. If the development of the New Growth Area results in the loss and degradation of local streams and associated drainages, that will cause the local extirpation of the Sanford's arrowhead and contribute to the cumulative impacts associated with the decline of the species. Impacts are *significant and unavoidable*.

WEST OF WATT NEW GROWTH AREA

The area west of Watt Avenue proposed for new growth and revitalization extends north from the old McClellan Air Force Base to just south of Elverta Road. This area is presently an agricultural-residential land use area. Growth and redevelopment proposed for this area will change the land to urban land uses including commercial and higher density residential. According to 2006 aerial photographs the area has wildlife habitat in the form of open fields for hawk foraging, six tributaries to Dry Creek with riparian habitat, seasonal wetlands and potentially a few shallow vernal swales and vernal pools. There are no recorded CNDDB occurrences for listed species in this New Growth Area. There are no conservation areas or preserves within the growth area.

Many of the habitat requirements for various species have been discussed previously and will not be repeated in this section. In this case only the potential for the species to occur and the impact will be stated.

AMERICAN BADGER

According to the CNDDB, there are no records of American badger detected within the West of Watt New Growth Area. There is a large (approximately 104 acres) open field that is adjacent to Dry Creek that could provide denning, dispersal and foraging habitat. The remaining open space acreage within the growth area is small, disconnected, and does not provide habitat to support badger. The development of the 104 acres of open space in the north end of the growth area will eliminate potential badger habitat and will contribute to the cumulative impacts associated with the decline of the species. Because of the large acreages badgers require, creation and or replacement of badger habitat is not feasible; therefore, the cumulative impacts are considered *significant and unavoidable*.

RINGTAIL

Ringtails are strongly associated with large continuous stands of riparian forest such as that found along Dry Creek and connected drainages, although there are no documented sightings of ringtail along Dry Creek. The small amount of riparian area along Goat Creek has the potential to provide a limited amount of ringtail habitat and is connected to Dry Creek. If ringtail is found along Dry Creek, the preservation of the riparian area along Goat Creek would reduce cumulative impacts to ringtails and many other riparian species. However, because of the limited amount of habitat

(approximately 8 acres) within the West of Watt New Growth Area the development of the New Growth Area is likely to have a *less than significant* impact on ringtails.

SPECIAL-STATUS BATS

The riparian areas along Goat Creek may provide roosting and foraging sites for five special-status bat species: pallid bat, Townsend's big-eared bat, hoary bat, western red bat, and Yuma myotis. Potential bat habitat can be found along Goat Creek where large trees provide roost sites and the aquatic environment provides ample prey. The preservation of the riparian area along Goat Creek would reduce impacts to bats and many other riparian species. The removal of trees along Goat Creek would eliminate potential roosting and foraging habitat for bats within the West of Watt New Growth Area and contribute to the cumulative impacts associated with the decline of the species. Because future plans for the Goat Creek riparian corridor are unknown, impacts to special status species in this area are *potentially significant*.

COOPER'S HAWK

Cooper's hawks typically nest and forage in forested areas or heavily treed urban areas. Past activities within the growth area have removed trees and many of the soils in the area do not support tree establishment. The riparian area along Goat Creek provides Cooper's hawk habitat. The preservation of the riparian area along Goat Creek would reduce impacts to Cooper's hawk. The removal of trees along Goat Creek would eliminate potential nesting and foraging habitat for Cooper's hawk within the West of Watt New Growth Area, cause the local extirpation of the Cooper's hawk and contribute to the cumulative impacts associated with the decline of the species. Impacts are *significant and unavoidable*.

LOGGERHEAD SHRIKE

The West of Watt New Growth Area contains suitable loggerhead shrike nesting and foraging habitat in the pasture and agricultural lands. The removal of shrubs and conversion of grazed pastures and agricultural land to residential and commercial uses removes foraging and nesting habitat necessary to sustain a population of loggerhead shrike. The development of the growth area will result in the loss of foraging habitat causing the local extirpation of the loggerhead shrike and contributing to the cumulative impacts associated with the decline of the species. Impacts are *significant and unavoidable*.

NORTHERN HARRIER

This New Growth Area contains suitable foraging habitat and nesting habitat for northern harrier in the form of grasslands, wetlands and agricultural crops. The conversion of grazed pastures and agricultural land to residential and commercial land uses removes foraging habitat necessary to sustain a population of northern harrier. The development of the growth area will result in the loss of foraging and nesting habitat causing the local extirpation of the northern harrier and contributing to the cumulative

impacts associated with the decline of the species. Impacts are *significant and unavoidable*.

TRICOLORED BLACKBIRD

The nearest CNDDB occurrence of nesting tricolored blackbird is five miles west of this New Growth Area. The large open undeveloped areas within the New Growth Areas have potential habitat for tricolored blackbird. The development of the growth area will result in the loss of foraging habitat causing the local extirpation of the tricolored blackbird and contributing to the cumulative impacts associated with the decline of the species. Impacts are *significant and unavoidable*.

SWAINSON'S HAWK

The West of Watt New Growth Area contains suitable nesting trees and foraging habitat for Swainson's hawk in the form of pastures and agricultural crops. There are three historic nests within 1.5 miles of the growth area. The conversion of pastures and agricultural land to residential and commercial land uses removes foraging habitat necessary to sustain a population of Swainson's hawk. The development of the growth area will result in the loss of foraging habitat causing the local extirpation of the Swainson's hawk and contributing to the cumulative impacts associated with the decline of the species. Mitigation through preservation and/or habitat creation and the avoidance of active nests may be able to reduce, but not eliminate, significant impacts to Swainson's hawk associated with the development of the West of Watt New Growth Area. Impacts are *significant and unavoidable*.

WESTERN BURROWING OWL

There are no CNDDB occurrences of burrowing owl within the growth area; however, there are undeveloped open areas that may have suitable burrowing owl habitat. If burrowing owls are present with the West of Watt New Growth Area, then development that results in the loss of foraging habitat will contribute to the cumulative impacts associated with the decline of the species. Impacts are *significant and unavoidable*.

WHITE-TAILED KITE

According to the CNDDB, there are occurrences of white-tailed kite nesting two miles west of this growth area. There is suitable foraging habitat and nesting trees for white-tailed kite within the growth area. The development of this growth area will eliminate white-tailed kite foraging habitat, cause local extirpation of the kite and contribute to the cumulative impacts associated with the decline of the species. Impacts are *significant and unavoidable*.

GIANT GARTER SNAKE

The giant garter snake has not been detected in the West of Watt New Growth Area and the nearest CNDDB location is over five miles to the west. There is not a significant

system of waterways in the area to supply summer aquatic habitat during the snake's active season from May to October. Goat Creek and Dry Creek's riparian areas are mostly wooded and there are significant amounts of predatory fish present within Dry Creek; therefore, Goat Creek and Dry Creek do not provide significant snake habitat. Due to the lack of habitat, no impacts to giant garter snake are anticipated from the development of the West of Watt New Growth Area. Impacts are *less than significant*.

NORTHWESTERN POND TURTLE

Goat Creek and associated drainages within the New Growth Area are not likely to have a significant population of turtles because of their shallow depths, short widths and seasonal water supply. In small drainages, northwestern pond turtles have difficulty escaping from predators, finding a constant food supply and finding suitable upland breeding habitat. The presence of northwestern pond turtle within the West of Watt New Growth Area is unlikely and impacts are *less than significant*.

WESTERN SPADEFOOT

According to the CNDDB, western spadefoot ~~toad~~ has been detected approximately four miles north of the West of Watt New Growth Area. The seasonal wetlands within the New Growth Area may be suitable breeding habitat and the undeveloped uplands may provide denning habitat. If spadefoot ~~toad are~~ **is** present, the development of the New Growth Area will result in the destruction of seasonal wetlands, cause the local extirpation of the spadefoot and contribute to the cumulative impacts associated with the decline of the species. Impacts are *significant and unavoidable*.

VERNAL POOL SPECIES

According to a review of aerial photographs, there is only a limited amount (roughly five acres) of potential vernal pool and vernal swale habitat within the West of Watt New Growth Area. There are no large contiguous vernal pool complexes in the growth area that would be considered quality vernal pool habitat suitable for preservation. However, wetland features were observed scattered throughout the growth area that may exhibit vernal pool characteristics and provide habitat to listed vernal pool species. Soils found in the growth area are conducive for producing vernal pools given the right topography and site conditions; however, when the topography is sloped and rolling, as with the growth area, vernal pools are less likely to form. Also, most of the properties within the growth area have been graded, leveled, and drained with activities associated with agricultural activities and urban land conversion. There are no CNDDB occurrences of listed vernal pool species in the West of Watt New Growth Area. Vernal pool species are unlikely to occur because they generally require deep and well developed vernal pool habitats not observed in the growth area. Due to the small amount of potential vernal pool habitat within the growth area, impacts to listed vernal pool species may be reduced to *less than significant* with mitigation through preservation and/or habitat creation.

VALLEY ELDERBERRY LONGHORN BEETLE

The valley elderberry longhorn beetle (VELB) requires the elderberry shrub for habitat. Past activities within the growth area cleared vegetation to create farmland, roads, and re-aligned creeks. In addition, some of the soils in the growth area are shallow with an impermeable clay layer that does not support shrub establishment. As a result of past activity and soil conditions, the West of Watt New Growth Area does not have stands of elderberry bushes that are necessary to support a population of VELB, but instead has isolated individual shrubs. These isolated shrubs are not typically considered to provide viable habitat for VELB (USFWS 1998, Collinge et al. 2001). Where elderberry shrub removal is necessary mitigation through preservation and/or habitat creation can be used to reduce impacts to *less than significant*.

NORTHERN CALIFORNIA BLACK WALNUT

The Northern California black walnut can be found at various locations throughout the Watt Avenue Growth area. The majority of black walnut trees found in the growth area are single isolated trees and there are no known stands of Northern California black walnuts within the Watt Avenue Growth area. Where black walnut tree removal is necessary, mitigation through preservation and/or habitat creation can be used to reduce impacts to less than significant. Due to the lack of significant stands of Northern California black walnut, the proposed urban development of the West of Watt Avenue New Growth Area will have a *less-than-significant impact* on Northern California black walnut.

SANFORD'S ARROWHEAD

Habitat for Sanford's arrowhead can be found within the creeks and associated drainages within the West of Watt New Growth Area. If the development of the growth area results in the loss and degradation of local streams and associated drainages, then development will cause the local extirpation of the Sanford's arrowhead and contribute to the cumulative impacts associated with the decline of the species. Impacts are *significant and unavoidable*.

EASTON PLANNING AREA

The FEIR for the Easton project concluded that the development would have significant impacts to vernal pool invertebrates, valley elderberry longhorn beetle, anadromous fish in the American River, northwestern pond turtle, nesting raptors including Swainson's hawk, and special-status nesting songbirds. According to the FEIR, these impacts can be reduced to *less than significant* through implementation of various mitigation measures.

MITIGATION MEASURES:

General Plan policies, mitigation provided for the project, and existing regulations provide all feasible protection for listed species. None recommended.

BUILDOUT OF PLANNED COMMUNITIES

Each of the master planning areas that the Project assumes will reach buildout by 2030, including Elverta, East Antelope, Vineyard Springs, North Vineyard Station, and Florin Vineyard 'Gap', included an EIR analysis of biological resources and the inclusion of mitigation measures. Compliance with these mitigation measures will ensure that impacts are reduced the maximum amount feasible. Nonetheless, the cumulative effect of buildout of these disparate areas is *significant and unavoidable*.

MITIGATION MEASURES:

Mitigation included for each planned community, in combination with General Plan policies and existing regulations provide all feasible protection and mitigation for listed species. No further mitigation is recommended.

COMMERCIAL CORRIDORS

The proposed revitalization of existing Commercial Corridors throughout the urbanized portions of the county is intended to economically revitalize these areas. Most of these corridors were built in the 1950s through 1970s and most habitats for listed species, such as wetlands, riparian woodlands, and grasslands have been removed. There are properties within the corridors that have open land that has not been paved and contain pasture-like open acreage. This acreage could contain habitat for rodents, which are prey for hawks or burrows for burrowing owls. However, the relatively small size of the open fields, their fragmented nature, and the fact that they are surrounded by urban development greatly reduces the value of the habitat necessary to support a population of listed species.

Many listed species require large amounts contiguous and undisturbed habitat in order to successfully breed and persist within an area. For example, though white-tailed kites nest in urban areas, their breeding success in urban areas has been found to be lower than in rural areas. Kites in urban areas suffer higher nest predation by urbanized species, such as the American crow, and have a more difficult time collecting prey in the fragmented landscape (Bloom et al. 2007). Similar negative effects of urbanization have been found impacting burrowing owl. Due to past habitat fragmentation, elimination, and degradation, the majority of the commercial corridors do not provide enough foraging and disturbance-free habitat to allow listed species to successfully breed and persist.

Impacts to listed species do occur in corridors, where suitable listed species habitat is connected to high quality larger undeveloped landscapes. In this situation, the loss of habitat becomes an incremental loss, which contributes to the cumulative impacts leading to the species' decline. For example, the east side of Folsom Boulevard Corridor is adjacent to the largely undeveloped land within the Aerojet property. The development of a lot connected to the large undeveloped Aerojet property would be considered more of an impact to wildlife than the development of a property that was surrounded by buildings and/or pavement.

Several of the commercial corridors have been developed in the past, and little or no undisturbed habitat remains. These corridors are Auburn Boulevard South, Fulton Avenue, Watt Avenue Central, Fair Oaks Boulevard East, Central, and West, and Greenback Lane. Within these corridors, natural drainages have been piped or channelized. The CNDDB contains no records of special status species occurring in these corridors. Further redevelopment of these commercial corridors is not anticipated to impact special status species.

The remaining commercial corridors either have suitable habitat for special status species or have CNDDB records of species occurrences. These are discussed below.

WATT AVENUE NORTH

The Watt Avenue North Commercial Corridor is approximately 720 acres in size with about 67 acres of open land (i.e. pastures or unpaved or not landscaped). Approximately 28 acres of the open land has undergone CEQA review and will be converted to buildings and pavement; therefore, the majority of the 720 acres of the corridor is already developed or will soon be developed. The 67 acres of open land is composed mostly of herbs and grasses. There are five drainages that cross the corridor, one of which is concrete lined, and the remaining have been channelized due to development. Riparian tree and shrub cover are absent from the drainages. There are no CNNDB records of listed species occurring in the Watt Avenue Corridor boundaries; however, the following discussion indicates where suitable habitat may exist.

WESTERN BURROWING OWL

The overgrown vegetation, small lot size, and fragmented positioning of the open lots within the corridor makes the undeveloped parcels unsuitable for maintaining a burrowing owl population. Nonetheless, the presence of owls cannot be discounted without site surveys that would take place during development. Impacts from individual projects can be reduced to *less than significant* levels with mitigation requiring preconstruction surveys for active natal burrow nests and avoidance, if they are found.

WHITE-TAILED KITE

Open areas that have small rodents and snakes provide foraging habitat for white-tailed kite and other raptors. There are two CNDDB records of nesting white-tailed kite approximately two miles west of the Watt Avenue Corridor. Research indicates that the majority of kites forage from 0.6 miles to 1.6 miles from their nests; thus the corridor is outside of the range of these nest sites. The open habitat within the corridor consists of small lots that are highly fragmented and therefore do not provide quality foraging habitat necessary to sustain a population of kite. Impacts to white-tailed kite and other raptors are *less than significant*.

VALLEY ELDERBERRY LONGHORN BEETLE

The valley elderberry longhorn beetle (VELB) requires the elderberry shrub for habitat. There are no CNDDB records of elderberry shrubs within or adjacent to the Watt Avenue Corridor; however, elderberry shrubs have been found within the Dry Creek Parkway, which is west of the Corridor. The presence of elderberry shrubs cannot be determined conclusively without a site survey. If elderberry shrubs are found on a property to be developed, mitigation through preservation and/or habitat creation can be used to reduce impacts to *less than significant*.

SANFORD'S ARROWHEAD

Habitat for Sanford's arrowhead can be found within the drainages in the Watt Avenue Corridor. If Sanford's arrowhead is found within the Corridor and development results in the loss and degradation of local streams and associated drainages, then development may contribute to the cumulative impacts associated with the decline of the species. Mitigation through preservation and/or habitat creation may be able to reduce impacts associated with the proposed urban development of the Watt Avenue Corridor to *less-than-significant* levels for Sanford's arrowhead.

AUBURN BOULEVARD NORTH

The Auburn Boulevard North Commercial Corridor is approximately 623 acres in size with about 35 acres of open land (i.e. pastures or unpaved or not landscaped). Approximately five acres of the open land has undergone CEQA review for development; therefore, the majority of the 623 acres of the corridor is already developed or will soon be developed.

Wildlife habitat in the Auburn Boulevard North Commercial Corridor consists of the 35 acres of land composed mostly of grasslands and woodlands. There are two drainages that cross the corridor, one of which is Arcade Creek and the other is an un-named tributary to Arcade Creek. Arcade Creek is designated as a Natural Stream Zone in the Sacramento County Zoning Code and has a dense riparian zone of trees and shrubs. Development has already occurred almost up to the banks of both drainages; therefore, no new impacts are expected to occur.

There are no CNNDB records of listed species within the Auburn Boulevard North Commercial Corridor.

WESTERN BURROWING OWL

Open areas can have suitable burrowing owl habitat. The overgrown vegetation, small lot size, and fragmented positioning of the open lots within the corridor makes the undeveloped parcels unsuitable for maintaining an owl population. Site surveys would be conducted as development is proposed. Impacts would be reduced to *less than significant* levels with mitigation requiring preconstruction surveys for active natal burrow nests and avoidance if they are found.

WHITE-TAILED KITE

The undeveloped grassland areas within the corridor are highly fragmented and do not provide quality foraging habitat necessary to sustain a population of white-tailed kite. Development of the 35 acres of open land in the corridor is likely to eliminate some foraging habitat, but due to the degraded and fragmented nature of habitat within the corridor, it will have a *less-than-significant* impact on the white-tailed kite.

SANFORD'S ARROWHEAD

Habitat for Sanford's arrowhead can be found within the drainages in the Auburn Boulevard North Commercial Corridor. Sanford's arrowhead is an aquatic plant that requires water during the spring and early summer. The development of the corridor will not result in the loss and degradation of local streams and associated drainages due to preservation strategies for these resources (see the Hydrology chapter). Impacts are *less than significant*.

NORTHERN CALIFORNIA BLACK WALNUT

The Northern California black walnut is not likely to naturally occur within the corridor because the majority of the habitat has been altered. Black walnut may occur at historic homestead sites where they were planted as root stock for propagating white walnut trees. They may also be found along creeks and drainages where the vegetation has not been removed. If black walnut trees are found in the corridor, they are likely to be single isolated trees. Where black walnut tree removal is necessary, mitigation through preservation and/or habitat creation can be used to reduce impacts to *less than significant*. Due to the lack of significant stands of Northern California black walnut, the proposed urban development of the corridor is not expected to have a significant impact on Northern California black walnut.

FOLSOM BOULEVARD

The Folsom Boulevard Commercial Corridor area is approximately 749 acres in size with approximately 25.5 acres of open land (i.e. pastures or unpaved or not landscaped). One 23-acre open lot is located adjacent to the Aerojet property. The 23-acre lot is savanna habitat with open grassland, shrubs, and trees. There is also a 2.5-acre lot (near the intersection of Folsom Boulevard and Horn Road) that appears to be farmed. Most of the natural drainages and wetlands within the corridor have been filled and piped. Two drainages pass through the corridor including the Folsom South Canal (concrete lined) and Buffalo Creek (channelized and concrete lined in some locations). According to the CNDDB records, no listed species have been detected within the corridor.

LOGGERHEAD SHRIKE

Open lands provide potential foraging and nesting sites for loggerhead shrikes. Shrikes use shrubs such as baccharis, wild rose, and blackberry for roosting, perching, and nesting. Grazed pasture, agricultural crops and mowed fields provide foraging habitat.

The removal of shrubs and conversion of grazed pastures and agricultural land to residential and commercial properties removes foraging and nesting habitat necessary to sustain a population of loggerhead shrike. The 23-acre property adjacent to Aerojet is potential shrike habitat and its connectivity to undeveloped open space makes it quality habitat. The development of the Corridor will result in the loss of foraging habitat, which will contribute to the cumulative impacts associated with the decline of the species. Significant impacts (according to CEQA and CESA) occur if the project causes the direct mortality or injury to the animal. Mortality is most likely to occur with the destruction of an active nest (i.e. with eggs or chicks). Impacts can be reduced to *less than significant* with mitigation requiring preconstruction surveys for active nests and avoidance, if they are found.

SWAINSON'S HAWK

The Folsom Boulevard Commercial Corridor contains suitable Swainson's hawk nesting trees and foraging habitat on the open lands including a 23-acres open lot and a 2.5 acre farmed parcel. According to the CNDDB records, there are two nest sites within five miles of the TOD. The 2.5 acre property has connectivity to larger farmed property, which make the 2.5 acre lot more valuable as foraging habitat. The conversion of grazed pastures and agricultural land to residential and commercial properties removes foraging habitat necessary to sustain a population of Swainson's hawk. Under the County's methodology for determining impact to foraging habitat, there are no requirements for habitat mitigation for a 2.5 acres parcel zoned RD20, or the 23-acre lot zoned SPA. The development of the corridor will result in the loss of foraging habitat, which contributes to the cumulative impacts associated with the decline of the species. The loss of foraging habitat is considered a significant impact to Swainson's hawk. Since mitigation would not be required, impacts are *cumulatively significant* with development of the Folsom Boulevard Commercial Corridor.

WESTERN BURROWING OWL

Open lands can have suitable burrowing owl habitat. The overgrown vegetation, small lot size, and fragmented positioning of the open lots within the corridor makes the undeveloped parcels unsuitable for maintaining an owl population. Site surveys will be conducted as development occurs. Impacts can be reduced to *less than significant* with mitigation requiring preconstruction surveys for active natal burrow nests and avoidance, if they are found.

WHITE-TAILED KITE

Open lands provide potential foraging and nesting sites for white-tailed kite. There are CNDDB records of kite nesting adjacent to the Folsom Boulevard TOD on the Aerojet property. The connected nature of this 23-acre property to the larger Aerojet property makes it potentially valuable kite foraging habitat, because the local area can sustain a breeding pair of kites. The development of the open fields will eliminate white-tailed kite foraging habitat and contribute to the cumulative impacts associated with the decline of the species. Impacts to nesting habitat can be reduced to less than significant with

mitigation requiring preconstruction surveys for active nests and avoidance if they are found. Loss of this foraging habitat is cumulatively *significant and unavoidable*.

VALLEY ELDERBERRY LONGHORN BEETLE

The valley elderberry longhorn beetle (VELB) requires the elderberry shrub for habitat. There are CNDDB records of elderberry shrubs adjacent to the Folsom Boulevard Commercial Corridor. As a result of past activity, the majority of properties within the TOD do not have stands of elderberry bushes that are necessary to support a population of VELB, but instead have isolated individual shrubs. These isolated shrubs are not typically considered to provide viable habitat for VELB (USFWS 1998, Collinge et al. 2001). The undeveloped 23-acre lot may be an exception and have a stand of elderberry bushes. Where elderberry shrub removal is necessary, mitigation through preservation and/or habitat creation can be used to reduce impacts to *less than significant*.

NORTHERN CALIFORNIA BLACK WALNUT

The Northern California black walnut is not likely to naturally occur within the Commercial Corridor because the majority of the habitat has been altered. Black walnut may occur at historic homestead sites where they were planted as root stock for propagating white walnut tree trees. If black walnut trees are found in the Commercial Corridor, they are likely to be single isolated trees. Where black walnut tree removal is necessary, mitigation through preservation and/or habitat creation can be used to reduce impacts to *less than significant*. Due to the lack of significant stands of Northern California black walnut, the proposed urban development of the Commercial Corridor is not expected to have a significant impact on this species.

FRANKLIN BOULEVARD

The Franklin Boulevard Commercial Corridor area is approximately 571 acres in size with approximately 55 acres of open land (i.e. pastures or unpaved or not landscaped). Most of the open land appears to have been mechanically leveled and has vegetation composed of grass and herbs. Most of the natural drainages and wetlands within the Corridor have been filled and piped. There are no vernal pool complexes within the Corridor.

According to the CNDDB records, no listed species have been detected within the Corridor.

WESTERN BURROWING OWL

Undeveloped open areas can have suitable burrowing owl habitat. According to CNDDB there are three records of burrowing owl within 1.5 miles of the Franklin Boulevard Corridor. The overgrown vegetation, small lot size, and fragmented positioning of the open lots within the corridor makes the undeveloped parcels unsuitable for maintaining an owl population. Site surveys will be conducted as

development occurs. Impacts can be reduced to *less than significant* with mitigation requiring preconstruction surveys for active natal burrow nests and avoidance if they are found.

WHITE-TAILED KITE

The open habitat within the corridor consists of small lots that are highly fragmented; therefore, they do not provide quality foraging habitat necessary to sustain a population of white-tailed kites. Development in the corridor is likely to eliminate some foraging habitat, but loss of the habitat will have a *less-than-significant* impact on the white-tailed kite.

NORTHERN CALIFORNIA BLACK WALNUT

The Northern California black walnut is not likely to naturally occur within the corridor because the majority of the habitat has been altered. Black walnut may occur at historic homestead sites where they were planted as root stock for propagating white walnut tree trees. The may also be found along creeks and drainages where the vegetation has not been removed. The majority of black walnut trees found in the corridor are likely to be single isolated trees and there are no known stands. Where black walnut tree removal is necessary, mitigation through preservation and/or habitat creation can be used to reduce impacts to less than significant. Due to the lack of significant stands of Northern California black walnut, the proposed urban development of the Corridor will have a *less-than-significant* impact on Northern California black walnut.

FLORIN ROAD

The Florin Road Commercial Corridor area is approximately 571 acres in size with approximately 76 acres of open land (i.e. pastures or unpaved or not landscaped). Most of the open land appears to have been mechanically leveled which may have removed depressions that formed wetlands. Vegetation on the open lots is composed of grass, herbs and a few shrubs. Most of the natural drainages and wetlands within the corridor have been filled and piped. According to the CNDDB records, listed species have been detected within the corridor.

SWAINSON'S HAWK

The Florin Road Corridor contains suitable nesting trees, but only marginal foraging habitat for Swainson's hawk. There are no large farmed crops which Swainson's hawk forage on more frequently than fallow overgrown fields, which are found in the Corridor. The nearest nest sites occur three miles west of the Corridor, along the Sacramento River closer to large-scale crop farming. The conversion of grazed pastures and agricultural land to residential and commercial properties, within the Corridor, has removed foraging habitat that was necessary to sustain a population of Swainson's hawk. Due to the lack of foraging habitat, no significant impacts to Swainson's hawk are anticipated with the proposed urban development of the Florin Road Corridor. Impacts are *less than significant*.

TRICOLORED BLACKBIRD

According to CNDDB, there are five records of tricolored blackbird nest colonies occurring within three miles of the Florin Road Corridor. The easternmost area within the Corridor has large open fields, with vegetative thickets and Florin Creek. Tricolored blackbird colonies require three habitat types to breed: open water, vegetative thickets, and large open fields or agricultural lands. The loss of one of the above habitats can cause the local extirpation of the tricolored blackbirds. To date, no studies have been performed that provide a minimum acreage for sustaining tricolored blackbird; however, colonies with less than 200 – 300 acres of foraging habitat do not persist and access to several thousand acres is necessary to maintain most large colonies (Hamilton 2004). If tricolored blackbirds are within the Corridor, development activities of the Corridor will eliminate tricolored blackbird habitat and may cause local extirpation of the tricolored blackbird and contribute to the cumulative impacts associated with the decline of the species. The destruction of an active nest (i.e. with eggs or chicks) would be considered a significant impact according to CEQA and CESA. Preconstruction surveys and active nest avoidance shall occur during the nesting season, and will reduce impacts to *less than significant*.

WESTERN BURROWING OWL

There are four CNDDB records of burrowing owl within 1.5 miles of the Florin Road Corridor. Undeveloped open areas, mounds of dirt, and frequently mowed fields provide suitable burrowing owl habitat. Within the corridor, owls can be found along the channelized creek and some of the undeveloped properties adjacent to the creeks. The creeks provide dispersal corridors for the owls to move through the urban landscape. Burrowing owls prefer open fields with short vegetation for foraging and with mammal burrows, which are used for nesting and roosting. The overgrown vegetation, small lot size, and fragmented positioning of the open lots within the corridor, makes many of the undeveloped parcels unsuitable for owls. However, the lots adjacent to the creeks have a higher likelihood of having owls and need to be surveyed for signs of owls. Impacts can be reduced to *less than significant* with mitigation requiring preconstruction surveys for active natal burrow nests and avoidance if they are found.

WHITE-TAILED KITE

Open lots provide potential foraging and nesting sites for white-tailed kite. The open habitat within the corridor consists of small lots that are highly fragmented; therefore, they do not provide quality foraging habitat necessary to sustain a population of kite. Development of the 76 acres of open land in the corridor is likely to eliminate some foraging habitat, but due to the degraded and fragmented nature of habitat within the corridor it will have a *less-than-significant* impact on the white-tailed kite.

GIANT GARTER SNAKE

The giant garter snake has not been detected in the Florin Road Corridor and the nearest CNDDB location is over 2.5 miles to the south. The channelized creek and sometimes concrete lined creeks in the corridor do not provide ideal habitat conditions

to support a population of giant garter snakes. Due to the lack of snake habitat within the Florin Road Corridor, no impacts to giant garter snake are anticipated from the proposed urban development. Impacts are *less than significant*.

VERNAL POOL SPECIES

There are CNDDB records of vernal pool species (i.e. vernal pool tadpole shrimp) occurring within and adjacent to the Florin Road Corridor. According to a review of aerial photographs, there were no large contiguous vernal pool complexes in the corridor that would be considered quality habitat suitable for preservation. However, there were a limited amount of wetland features observed scattered throughout the corridor, that may provide habitat to listed vernal pool species. Most properties within the corridor have been graded, leveled, and drained from agricultural activities and urban land conversion. If vernal pool habitat was found in the corridor the following species have the potential to occur: California linderiella, Ricksecker's water scavenger beetle, vernal pool tadpole shrimp, vernal pool fairy shrimp, mid-valley shrimp, legenere, dwarf downingia, Boggs Lake hedge-hyssop, Sacramento orcutt grass, slender orcutt grass, and pincushion navarretia. Some of these species are unlikely to occur because they generally require deep and well developed vernal pool habitat not observed in the corridor. Due to the small amount of potential vernal pool habitat within the corridor, mitigation through preservation and/or habitat creation can reduce impacts associated with the proposed urban development of the Florin Road Corridor to *less than significant* for vernal pools and associated species.

SANFORD'S ARROWHEAD

There are CNDDB records of Sanford's arrowhead occurring within and adjacent to the Florin Road Corridor. Sanford's arrowhead is an aquatic plant that requires water during the spring and early summer. If the development of the corridor results in the loss and degradation of local streams and associated drainages, then development will cause the local extirpation of the Sanford's arrowhead and contribute to the cumulative impacts associated with the decline of the species. However, policies exist to preserve these resources (see Hydrology chapter). Mitigation through preservation and/or habitat creation can reduce impacts associated with the proposed urban development of the Florin Road Corridor to *less than significant* for Sanford's arrowhead.

NORTHERN CALIFORNIA BLACK WALNUT

The Northern California black walnut is not likely to naturally occurring within the corridor because the majority of the habitat has been altered. Black walnut may occur at historic homestead sites where they were planted as root stock for propagating white walnut tree trees. The may also be found along creeks and drainages where the vegetation has not been removed. The majority of black walnut trees found in the corridor are likely to be single isolated trees and there are no known stands. Where black walnut tree removal is necessary, mitigation through preservation and/or habitat creation can be used to reduce impacts to less than significant. Due to the lack of significant stands of Northern California black walnut, the proposed urban development

of the corridor is not expected to have a significant impact on Northern California black walnut. Impacts are *less than significant*.

STOCKTON BOULEVARD CENTRAL

The Stockton Boulevard Central Commercial Corridor area is approximately 206 acres in size with approximately 13 acres of open land (i.e. pastures or unpaved or not landscaped). All but 3.2 acres of open land acreage is located on large residential lots where the backyards are not maintained. The backyards consist of grasslands, shrubs and trees. Most of the natural drainages and wetlands within the corridor have been filled and piped. According to the CNDDB records, no listed species have been detected within the corridor.

WESTERN BURROWING OWL

The overgrown vegetation, small lot size, and fragmented positioning of the open lots within the corridor makes the undeveloped parcels unsuitable for maintaining a burrowing owl population. The presence of owls can not be discounted without site surveys that would take place during development. Impacts from individual projects can be reduced to *less than significant* levels with mitigation requiring preconstruction surveys for active natal burrow nests and avoidance, if they are found.

WHITE-TAILED KITE

Open lots provide potential foraging and nesting sites for white-tailed kite. The open habitat within the corridor consists of small lots that are highly fragmented; therefore, they do not provide quality foraging habitat necessary to sustain a population of kite. Development of the 13 acres of open land in the corridor will eliminate some foraging habitat, but due to the degraded and fragmented condition of the habitat, development will have a *less-than-significant* impact on the white-tailed kite.

NORTHERN CALIFORNIA BLACK WALNUT

The Northern California black walnut is not likely to naturally occur within the corridor because the majority of the habitat has been altered. Black walnut may occur at historic homestead sites where they were planted as root stock for propagating white walnut tree trees. The may also be found along creeks and drainages where the vegetation has not been removed. The majority of black walnut trees found in the corridor are likely to be single isolated trees; there are no known stands. Where black walnut tree removal is necessary, mitigation through preservation and/or habitat creation can be used to reduce impacts to less than significant. Due to the lack of significant stands of Northern California black walnut, the proposed urban development of the corridor is not expected to have a significant impact on Northern California black walnut. Impacts are *less than significant*.

STOCKTON BOULEVARD SOUTH

The Stockton Boulevard South Commercial Corridor area is approximately 1,008 acres in size with approximately 282 acres of open land (i.e. pastures or unpaved or not landscaped). Most of the open land appears to have been mechanically leveled which may have removed depressions that formed wetlands. Vegetation on the open lots is composed of grass, herbs and a few shrubs. Most of the natural drainages and wetlands within the corridor have been filled and piped. Elder Creek and Union House Creek flows through the project site and both creeks have been channelized and concrete lined in places. According to the CNDDB records, listed species have been detected within the corridor.

SWAINSON'S HAWK

The Stockton Boulevard South Commercial Corridor contains suitable nesting trees, but only marginal foraging habitat for Swainson's hawk. There are no large farmed crops which Swainson's hawk forage on more frequently than fallow overgrown fields, which are found in the corridor. The nearest nest sites occur three miles west of the corridor, along the Sacramento River, closer to large scale crop farming. The past conversion of grazed pastures and agricultural land to residential and commercial properties, within the corridor, has removed foraging habitat that was necessary to sustain a breeding Swainson's hawk. Due to the lack of foraging habitat, no significant impacts to Swainson's hawk are anticipated with the proposed urban development of the Stockton Boulevard South Commercial Corridor. Impacts are *less than significant*.

TRICOLORED BLACKBIRD

According to CNDDB records, there was one occurrence of a nesting tricolored blackbird colony within the corridor and five occurrences within 2.5 miles of the corridor. Tricolored blackbird colonies require three habitat types to breed: open water, vegetative thickets, and large open fields or agricultural lands. The loss of one of the above habitats can cause the local extirpation of the tricolored blackbirds. If tricolored blackbirds are within the corridor, development activities will eliminate tricolored blackbird habitat and will cause local extirpation of the tricolored blackbird and contribute to the cumulative impacts associated with the decline of the species. The destruction of an active nest (i.e. with eggs or chicks) would be considered a significant impact according to CEQA and CESA. In order to reduce this impact to *less than significant* preconstruction surveys and active nest avoidance should occur during the nesting season.

WESTERN BURROWING OWL

According to CNDDB records, there are occurrences of burrowing owl within the Stockton Boulevard South Commercial Corridor. Undeveloped open areas, mounds of dirt, and frequently mowed fields provide suitable burrowing owl habitat. Within the corridor, owls can be found along the channelized creek and some of the undeveloped properties adjacent to the creeks. The creeks provide a dispersal corridor for the owls to move through the urban landscape. Burrowing owls prefer open fields with short

vegetation for foraging and with mammal burrows, which are used for nesting and roosting. The overgrown vegetation, small lot size, and fragmented positioning of the open lots within the corridor, makes many of the undeveloped parcels unsuitable for owls. However, the lots adjacent to the creeks have a higher likelihood of having owls and need to be surveyed for signs of owls. Impacts can be reduced to *less than significant* with mitigation requiring preconstruction surveys for active natal burrow nests and avoidance if they are found.

WHITE-TAILED KITE

Open lots provide potential foraging and nesting sites for white-tailed kite. The 282 acres of open land may provide enough foraging habitat to support breeding kites. The development of the open fields will eliminate white-tailed kite foraging habitat and will contribute to the cumulative impacts associated with the decline of the species. Significant impacts (according to CEQA and CESA) occur if the project causes the direct mortality or injury to the animal. Mortality is most likely to occur with the destruction of an active nest (i.e. with eggs or chicks). Impacts can be reduced to *less than significant* with mitigation requiring preconstruction surveys for active nests and avoidance if they are found.

GIANT GARTER SNAKE

The giant garter snake has not been detected in the Stockton Boulevard South Commercial Corridor and the nearest CNDDB location is 1.5 miles to the south. The concrete lined creeks do not provide ideal habitat conditions to support a population of giant garter snake. Due to the lack of snake habitat within the Stockton Boulevard South Commercial Corridor no impacts to giant garter snake are anticipated from the proposed urban development of the corridor. Impacts are *less than significant*.

VERNAL POOL SPECIES

There are no CNDDB records of listed vernal pool species (i.e. vernal pool tadpole shrimp, vernal insects, or vernal pool plants) occurring within the corridor, but there are occurrences adjacent to the Stockton Boulevard South Commercial Corridor. According to a review of aerial photographs, there were no large contiguous vernal pool complexes in the corridor that would be considered quality habitat suitable for preservation. However, there were a limited amount of wetland features observed, scattered throughout the corridor, that may provide habitat to listed vernal pool species. Most properties have been graded, leveled, and drained with agricultural activities and urban land conversion. If vernal pool habitat was found in the corridor the following species have the potential to occur: California linderiella, Ricksecker's water scavenger beetle, vernal pool tadpole shrimp, vernal pool fairy shrimp, mid-valley shrimp, legenere, dwarf downingia, Boggs Lake hedge-hyssop, Sacramento orcutt grass, slender orcutt grass, and pincushion navarretia. Some of these species and species like spadefoot toad and California tiger salamander are unlikely to occur because they generally require deep and well developed vernal pool habitat not observed in the corridor. Due to the small amount of potential vernal pool habitats within the corridor, impacts

associated with the development of the Stockton Boulevard South Commercial Corridor may be reduced to *less than significant* through preservation and/or habitat creation.

VALLEY ELDERBERRY LONGHORN BEETLE

The Valley Elderberry Longhorn Beetle (VELB) requires the elderberry shrub for habitat. Past activities within the corridor cleared vegetation to create farmland, gravel quarries, roads, and re-aligned creeks. In addition, some of the soils in corridor are shallow with an impermeable clay layer that does not support shrub establishment. As a result of past activity and soil conditions, the Stockton Boulevard Corridor does not have stands of elderberry bushes that are necessary to support a population of VELB. There is the possibility that isolated individual shrubs may be found. These isolated shrubs are not typically considered to provide viable habitat for VELB (USFWS 1998, Collinge et al. 2001). Where elderberry shrub removal is necessary mitigation through preservation and/or habitat creation can be used to reduce impacts to *less than significant*.

NORTHERN CALIFORNIA BLACK WALNUT

The Northern California black walnut is not likely to naturally occur within the corridor because the majority of the habitat has been altered. Black walnut may occur at historic homestead sites where they were planted as root stock for propagating white walnut tree trees. They may also be found along creeks and drainages where the vegetation has not been removed. The majority of black walnut trees found in the corridor are likely to be single isolated trees; there are no known stands. Where black walnut tree removal is necessary, mitigation through preservation and/or habitat creation can be used to reduce impacts to less than significant. Due to the lack of significant stands of Northern California black walnut, the proposed urban development of the corridor will not have a significant impact on Northern California black walnut. Impacts are *less than significant*.

SANFORD'S ARROWHEAD

There are CNDDB records of Sanford's arrowhead occurring within and adjacent to the Stockton Boulevard South Commercial Corridor. Sanford's arrowhead is an aquatic plant that requires water during the spring and early summer. If the development of the corridor results in the loss and degradation of local streams and associated drainages, then development will contribute to the cumulative impacts associated with the decline of the species. However, policies exist to preserve these resources (see Hydrology chapter). Mitigation through preservation and/or habitat creation can reduce impacts associated with the proposed urban development of the Stockton Boulevard South Commercial Corridor to *less than significant* for Sanford's arrowhead.

MITIGATION MEASURES:

General Plan policies and existing regulations provide all feasible protection for listed species. No further mitigation is recommended.

Residential Infill

The following discussion regarding infill predicts the likely severity of infill development impacts on listed species. Infill normally occurs on land that is surrounded by urban development, occurs on small sites (most are several acres or less), and is likely to have past activity that has eliminated or reduced listed species habitat. For typical infill sites, impacts to listed species would not be expected or could be reduced to less than significant with mitigation involving preservation and/or habitat creation. However, infill impacts may be considered significant if habitat is connected to a larger significant habitat, where development blocks a dispersal corridor, or where development directly impacts the habitat of a listed species. However, given the definition of infill, such a situation would be extremely rare and most infill development would result in no impacts, or impacts that can be mitigated to a *less-than-significant* level.

Mitigation Measures

General Plan policies and existing regulations provide all feasible protection for listed species. No further mitigation is recommended.

Impact: Impacts to Native Trees

Proposed Policies

The Draft General Plan Update has made substantial changes to policies regarding the protection and preservation of native trees in Sacramento County. Individually or combined, proposed and amended Draft General Plan Update policies define native trees and how to mitigate for their loss. The following is a description of the draft policies and their possible effects.

CO-150 would change the current land use development processes associated with fuel wood production. The amended policy adds language requiring those harvesting fuel woods to obtain a tree removal permit; however, based on the language in Implementation Measures A, B, and G, it appears that the policy intended to say “would need to obtain a Use Permit”. This would add a new step in the process allowing the County to ensure that harvesting is on a sustainable yield basis in conformance with appropriate Implementation Measures. The changes to this policy would more closely regulate the harvesting of fuel woods and *would not have an adverse effect* on hardwood forests.

CO-151 would require land operators to properly manage grazing activities on their land to protect native vegetative habitats. Previously, only oak woodlands were specified, limiting the number of operators the policy affected. The amended policy would extend to all native vegetative habitats, thereby increasing the number of operators subject to the policy. This policy is further implemented through Implementation Measure F. This policy would increase the protection on native vegetative habitats that were not previously protected. The policy *would not have an adverse effect* on native vegetative resources in the County.

CO-152 and CO-155 could change how and where mitigation occurs. The policies would require developers and County agencies to determine proper placement of mitigation areas and to protect these mitigation areas by prohibiting their loss without an accounting of the actual impacts of removal and a requirement for 2:1 replacement for the loss of mitigation areas. This policy is further implemented through Implementation Measure K. This measure would create a County-wide monitoring tool to determine if mitigation areas are proposed for removal. These policies and associated implementation measures would be beneficial to protect and maintain mitigated resource areas.

CO-153 and CO-154 would influence the size, type, and placement of development in areas that are currently habitat for a wide range of native vegetative diversity and California prairie habitat. Developers would have to evaluate potential development sites prior to design to determine if there is existing native habitat that would require preservation. In addition, Implementation Measures C, D, I, and J provide direction on establishing a baseline extent of native resources and how to properly identify and maintain areas of high habitat value. These policies would be beneficial in preserving the existing native vegetative diversity of the undeveloped portions of the County.

CO-156 and CO-158 would require the protection of cottonwoods along riparian areas or used by Swainson's hawk, the protection of oaks in all land uses and the protection of oak woodlands, oak savannah, or mixed riparian areas for all projects, including those that are not discretionary. This could alter how development is designed due to tree constraints on a site. Tree mitigation would be imposed on all projects and land uses that have native trees including oaks, cottonwoods, or mixed riparian species. Land that may not have been subject to tree mitigation previously will now be subject to the amended policies. Landmark and heritage tree protection policies are implemented through Implementation Measures A through G. The amended policy will increase the number of native trees preserved throughout the County, thereby *not adversely affecting* the native tree population.

Jackson Highway Corridor New Growth Area

The Jackson Highway Corridor contains expansive grasslands, croplands, natural stream corridors, mixed riparian vegetation, and scattered native and ornamental tree species. This area contains Elder Creek and Morrison Creek. Along the banks of these creeks in several locations are mixed riparian woodlands and valley oak riparian habitat. These habitat types occur lineally along the beds of the creeks and provide habitat for mammal and bird species. Depending on the degree and placement of new development, the mixed riparian trees associated with these creeks and streams could be lost. Removal of native riparian trees would be considered significant. In addition, draft policy CO-162 will require that retention of mature trees, regardless of species, be considered as part of development. Removal could be considered as long as it is consistent with the Greenprint. With replacement plantings occurring through draft policy CO-158, the significant impacts could be reduced, though not to a less-than-significant level. There will still be temporal losses (meaning that it will be many years before a seedling planted replaces a mature tree). There will also be losses within

particular areas of the County, because lack of space will require that replacement plantings for an impact in one area of the County may need to be accommodated in a very different part of the County. Impacts are *significant and unavoidable*.

Grant Line East New Growth Area

The area of proposed urban development east of Grant Line Road is currently designated as general agriculture. The land is sparsely covered by trees, with the greatest density occurring in the northern portion of the area. There are approximately 25 acres of cottonwood woodlands. The cottonwood woodlands lie predominantly within current and past aggregate mining operations. The southern portion is mostly void of trees due to the soil conditions. Instead, this portion of the land is covered in vernal pools and associated wetlands and annual grasslands.

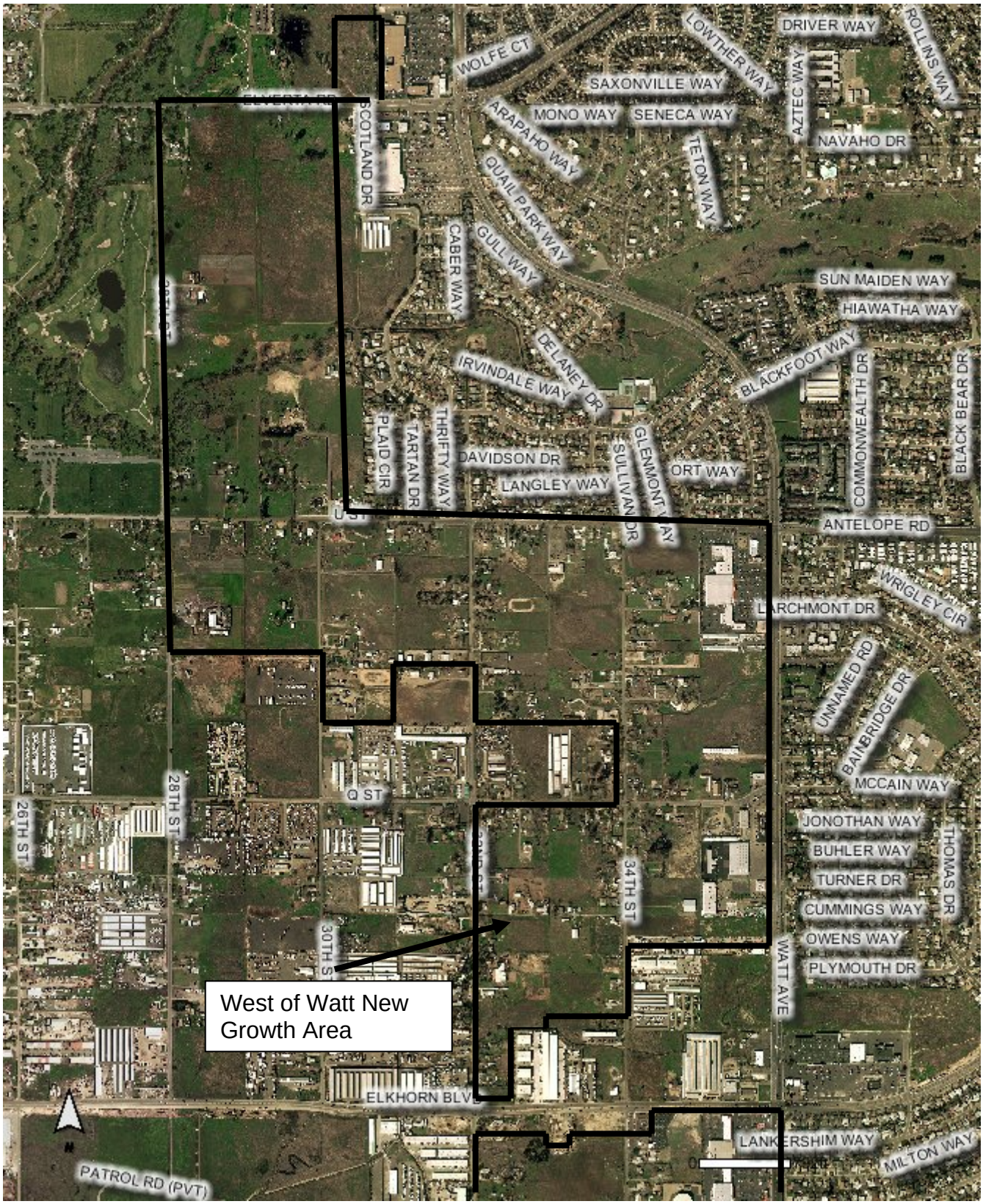
The proposed urban development in this area will not have significant impacts to tree resources. Any impact to tree removals could be mitigated to a *less than significant* level through new General Plan policies and current mitigation techniques.

West of Watt New Growth Area

According to 2006 aerial photographs (Plate BR-7 and Plate BR-8), this area is scattered with trees. Due to the nature of agricultural-residential development, tree species may include native oaks and non-native ornamental varieties. Any potentially significant native tree removal due to development would be subject to CO-156, CO-157 and CO-158, ensuring no net loss of native trees. These policies require in-kind replacement of native species equivalent to the diameter lost. The removal of any non-native ornamental variety would be partially or wholly replaced to either fulfill shade requirements for parking lots or be planted in new landscaping for residential uses. The loss of mature trees and their canopies would be temporary; therefore, impacts to trees would be *less than significant*.

Plate BR-7 West of Watt Southern Portion

Plate BR-8 West of Watt Northern Portion



EASTON PLANNING AREA

The FEIR for the Easton project concluded that the development would result in the loss of 99.5 acres of oak tree canopy associated with oak woodlands. This was determined to be a *significant and unavoidable* impact, even with the implementation of mitigation measures to offset this loss. The project would also have a potentially significant impact on native oak trees retained within the project. This impact can be reduced to *less than significant* with mitigation measures to protect individual trees or smaller groups of trees during construction.

BUILDOUT OF PLANNED COMMUNITIES

Each of the master planning areas that the Project assumes will reach buildout by 2030, including Elverta, East Antelope, Vineyard Springs, North Vineyard Station, and Florin Vineyard 'Gap', included an EIR analysis of biological resources and the inclusion of mitigation measures. Compliance with these existing mitigation measures will ensure that impacts are reduced the maximum amount feasible. Nonetheless, the cumulative effect of buildout of these disparate areas is *significant and unavoidable*.

COMMERCIAL CORRIDORS REDEVELOPMENT

Most of the commercial corridors were built in the 1950s through 1970s and at that time tree preservation and planting standards were not standard. Many of these corridors are completely covered with buildings or parking lots. There are some areas where trees have been planted or trees have voluntarily grown; however the number of trees is relatively low compared to other urbanized areas. Any impacts associated with native trees would be addressed through policies CO-156 through CO-158 and are expected to be *less than significant*.

RESIDENTIAL INFILL

Residential infill would occur throughout the entire County in areas where there is already urban development. The majority of trees in urban areas of the County are ornamental varieties that are planted by homeowners. However, native trees do continue to thrive in urban areas that are less dense or located near creeks and streams. Native oak trees dominate the type of native species found, but there are also occurrences of native black walnuts, sycamore, and cottonwoods. Native trees are specially adapted to the regional soil, water, and temperature conditions. Any changes to the natural growing conditions (i.e. grading for house construction, alteration of drainage patterns, or surrounding tree canopies) can detrimentally affect the survival of a mature specimen. In order to preserve native trees, the lots must be large enough to provide adequate room for both the trees and new development.

Policies CO-156, CO-157 and CO-158 assure protection to native trees in urban environments. The policies also require replacement with in-kind species if protection cannot be achieved during development. Though on an individual level, the loss of trees from a single infill project will typically be less than significant, the cumulative

result of all of these infill projects is likely to be a substantial loss of native trees. Impacts are *significant and unavoidable*.

MITIGATION MEASURES:

Below are additional mitigation measures that are proposed to mitigate impacts to native trees that will occur under the proposed General Plan Update.

BR-1. The following General Plan policy shall be added: Mitigate for the loss of native trees for road expansion and development consistent with General Plan policies and the County Tree Preservation Ordinance.

BR-2. Implementation Measure B, under the Landmark and Heritage Tree Protection objective, bullet item number five should be changed as follows:

A. Require equivalent compensation of a minimum tree replacement value as follows:

   a. <u>One deepot seedling = 1 inch dbh</u>

   b. One 15-gallon tree = 1 inch dbh

   c. One 24-inch box tree = 2 inch dbh

   d. One 36-inch box tree = 3 inch dbh

IMPACT: LOSS OF TREE CANOPY

The urban environment includes the extensive urban forest, the majority of which contains non-native ornamental species that are chosen for their shade value, resistance to pests and diseases, and adaptation to urban environments. However, native trees such as valley, interior live and blue oaks are incorporated into developments if feasible. The combination of existing native trees and non-native landscape and ornamental trees make up the overall tree canopy in the County. Tree canopy as defined in the Draft General Plan Update is the plain view of a tree's crown at full foliage. Maintaining an area's tree canopy can provide opportunities for second-generation growth that will eventually replace first-generation growth.

Trees in urban areas provide aesthetic and environmental benefits to residential and commercial areas. These include ornamental value, shade that reduces the effects of urban heat island and energy consumption, community livability, storm water quality, and carbon sequestration. Trees enhance a community's livability by softening street noise and enhancing pedestrian use. Urban trees provide stormwater quality benefits by intercepting small, more frequent rain and compensating, to some extent, the impact of paved areas. Trees also provide a cool green canopy of shade to reduce the heating effects of summer sun and consequently reduced energy consumption to cool buildings. The urban forest in Sacramento has provided distinct identities for local neighborhoods and has reduced summertime temperatures by minimizing reflective heat. As the

County's urbanized area expands, the need for trees and associated canopy cover will increase. Since an urban forest is not static, the planting and maintenance of trees will be required to encourage healthy growth and to protect the biologic well being of the urban forest.

PROPOSED POLICIES

The Draft General Plan Update includes updated policies regarding urban forest management and introduces new policies addressing new urban trees. These are Policies CO-160 through CO-165, the text of which can be found in Appendix A. None of the 1993 General Plan policies regarding urban forests or tree canopy were deleted in the Draft General Plan Update.

The objective of the Urban Forest Management policies (CO-160 through CO-162) is "a coordinated, funded Urban Tree Management Plan and program sufficient to achieve a doubling of the County's tree canopy by 2050 and [to] promote trees as economic and environmental resources for the use, education, and enjoyment of current and future generations." To achieve this objective, these policies promote the Greenprint initiatives discussed in the Regulatory Setting section of this chapter.

The language in Policies CO-160 and CO-161 is identical to Policies CO-139 and CO-140 of the 1993 General Plan. These policies do not have an adverse effect on the environment. Their intent is to promote general awareness and education about the importance and value of trees in the urban landscape.

Policy CO-162 would require that developers and approving bodies consider the entire canopy of an urban development site and design development to be consistent with the provisions of the Greenprint. This would affect the design of the development, retention of mature trees, and mitigation plans for those trees that must be removed. This policy could potentially make infill projects more difficult to design and build. However, the urban environment would benefit from the retention of mature trees as noted above. Policy CO-165 would require all planted trees within parking lots to have pervious pavement and structural soils placed to the degree necessary to sustain the tree at full growth. This would require developers and landscape architects to change their traditional planting and design procedures to follow this new policy.

Policy CO-163 is the same as Policy CO-137 in the 1993 General Plan. Implementation of this policy includes adoption of an ordinance to require planting a minimum of one 15-gallon street tree on each new residential lot, and two 15-gallon street trees on each new residential corner lot. For commercial development, a minimum of 50% shade within any parking lot would be required, and the size of planting spaces within parking lots would be increased to provide a larger area for root growth. Implementation of these requirements would provide tree canopy in new residential and commercial developments as well as in areas that are already urbanized but have infill potential.

Policy CO-164 (Policy CO-138 in the 1993 General Plan) has historically been implemented through the County's partnership with the Sacramento Tree Foundation,

which will continue for the foreseeable future. Funds are received from local developers to mitigate for tree removals associated with new development. The Sacramento Tree Foundation then plants trees at suitable sites throughout the County to fulfill the individual projects' mitigation requirements. Funds in the County Tree Preservation Fund are periodically disbursed to the Tree Foundation to support larger-scale planting efforts. Over 450,000 trees have been planted in parks, schools, and private property throughout Sacramento County since 1990 through the Tree Foundation's NATURE, NeighborWoods, and Sacramento Shade programs.

Policy CO-165 is aimed at increasing survivability of trees planted in parking lots. This policy would require utilization of relatively new products and methodologies (pervious concrete and structural soils) to provide a larger root growth environment for new trees. Pervious concrete allows for increased water infiltration over the root zone, in contrast to the commonly used asphalt concrete that prevents water infiltration and increases runoff. Pervious concrete performs structurally just like conventional concrete, with similar strengths, and can be designed to meet the load requirements of any standard that conventional concrete meets. Structural soil is a specific combination of small (0.75"-1.5") angular crushed rock, a clay loam soil with a minimum of 20% clay and 2%-5% organic matter content, and a hydrogel binding agent/tackifier. This specific combination is required in order to provide the proper stone-to-soil ratio which creates a medium for healthy root growth that can also be compacted to meet engineers' load-bearing specifications.

Overall, the effects of the new and amended policies will have a *less than significant* impact on tree canopy. The quantity and quality of tree canopy will increase with the implementation of these policies.

Jackson Highway Corridor New Growth Area

The Jackson Highway Corridor contains mixed riparian vegetation and scattered native and ornamental tree species. Along the banks of these creeks in several locations are mixed riparian woodlands and valley oak riparian habitat. The greatest concentration of tree canopy occurs along the natural stream corridors, with the exception of occasional trees in the grasslands or on residential properties.

Under the proposed Draft General Plan policies and implementation measures within the "New Urban Trees" portion of the Terrestrial Resources section of the Draft Conservation Element, development within the Jackson Highway Corridor New Growth Area would be subject to the new policies in addition to the existing policies. The combined effect of the native tree policies and the urban tree policies will be a net increase in tree canopy. This is because the existing tree canopy in the Jackson Highway Corridor is primarily concentrated along natural streams that are not suitable for urban development, and minimal tree removal would occur with new development. Trees planted with new development would increase the amount of canopy overall. Impacts to tree canopy in the Jackson Highway Corridor New Growth Area are *less than significant*.

GRANT LINE EAST NEW GROWTH AREA

The Grant Line East New Growth Area is predominantly open grasslands. As mentioned above, there are approximately 25 acres of cottonwood woodlands growing around the mine tailings in the northern section of this area.

If development occurred within the Grant Line East New Growth Area subject to the New Urban Trees policies, the net canopy would increase. Although there are approximately 25 acres of existing cottonwood woodlands in this area, this is a relatively small amount of tree canopy when compared to the potential canopy that would be created by new trees planted with development. The new canopy would be distributed over the new development area instead of concentrated in the northern portion as it is currently. Impacts to tree canopy in the Grant Line East New Growth Area are *less than significant*.

WEST OF WATT NEW GROWTH AREA

This New Growth Area contains primarily agricultural-residential land uses, with occasional commercial and industrial uses. Land uses will transition to higher density residential and commercial uses. The existing tree canopy within the West of Watt area is widely scattered, with the exception of more dense canopies in the riparian corridors associated with a tributary to Dry Creek east of 28th Street and south of Elverta Road, and a tributary to Rio Linda Creek between 32nd Street and the eastern boundary of the New Growth Area, south of Elkhorn Boulevard. These scattered tree canopies are beneficial to the adjacent land uses where the individual trees or stands of trees occur. With increases in urban land uses, it is likely that many of the existing trees could be removed for new development. Trees within the riparian corridors mentioned above would likely be protected pursuant to the General Plan policies regarding riparian habitat.

Any new development in the West of Watt New Growth Area under the New Urban Trees policies would result in a net gain of tree canopy. The combined effect of the native tree policies and the urban tree policies will be a net increase in tree canopy. Impacts to tree canopy are *less than significant*.

EASTON PLANNING AREA

The Easton area contains a substantial amount of oak woodlands and riparian woodlands, and many cottonwoods growing among acres of mine tailings from historic mining activities. A substantial portion of the riparian and oak woodlands is proposed to be retained within a natural preserve along Alder Creek on the northern portion of the site, south of Highway 50. However, impacts to tree canopy within the areas proposed for development will be significant. Mitigation will be required for impacts to native trees and riparian habitat, though impacts will remain *significant and unavoidable* even with implementation of the recommended mitigation measures.

The Easton project includes two Land Use Master Plans (LUMPs) called Easton Place and Glenborough at Easton. These documents include development standards for residential, commercial, mixed use, office park, and park developments, which require planting of large-canopy shade trees throughout the project area where appropriate, and a range of small, medium and large tree species that will create a continuous canopy along the streets of the project. The overall Easton project also includes a Resource Conservation Management Plan that calls for replacement mitigation to compensate for the removal of native trees. Implementation of the landscaping proposed in the LUMPs and the native tree planting measures proposed in the RCMP will result in the replacement of tree canopy long-term.

Buildout of Planned Communities

Each of the master planning areas that the Project assumes will reach buildout by 2030, including Elverta, East Antelope, Vineyard Springs, North Vineyard Station, and Florin Vineyard 'Gap', included an EIR analysis of biological resources and the inclusion of mitigation measures. Compliance with these mitigation measures will ensure that impacts are reduced the maximum amount feasible. Though all of these areas included important native tree resources prior to development, none had large areas of urban forest. The predominant habitat type in all of these areas was non-native grassland. New development includes the planting of street trees, parking lot trees, and residential landscaping trees. When these trees mature, the planned communities are likely to have more urban forest canopy than the areas had prior to any development. The cumulative tree canopy impact of development within the planned communities is *less than significant*.

Commercial Corridors Redevelopment

The proposed redevelopment of existing commercial corridors throughout the urbanized portions of the county is intended to economically revitalize these areas. Development standards at the time these commercial sites were developed did not emphasize the importance of parking lot shade or other benefits associated with trees. As a result, the older sites have significantly fewer trees in comparison to newer commercial sites, and some have no trees at all.

As stated in the New Urban Trees section of the Conservation Element, current code provisions only require 30% to 50% tree canopy coverage in parking lots, depending on lot size, and delineate only narrow tree planting strips. Proposed Policies CO-163 and CO-165 and the associated implementation measures require increased planting areas and a minimum of 50% shade within any parking lot within 15 years of planting. Use of structural soils and pervious concrete would also be required to provide adequate root growth area and water infiltration to sustain the new trees at full growth. These upgrades to existing parking lots would be triggered whenever development expansion or improvement exceeds 10% of the existing building's interior square footage.

Redevelopment of the existing commercial corridors will result in temporal loss of tree canopy. However, the existing tree canopy within these areas is minimal and does not

provide substantial benefits in terms of energy savings, air quality, or aesthetics. Redevelopment under the draft General Plan Update policies would result in an increase in tree canopy and associated benefits. These impacts are *less than significant*.

RESIDENTIAL INFILL

Under the Draft General Plan Update, residential infill would continue to occur in the same manner as it occurs under the 1993 General Plan. Most infill development sites are constrained by parcel sizes, existing utility locations, topography, and other issues that frequently require the removal of the majority of existing trees. The urbanized core of the County, north of the American River, also includes substantial areas of urban tree canopy. Impacts to tree canopy would be addressed through implementation of the tree policies described in the General Plan.

Under the existing General Plan policies, impacts to non-native trees and associated canopy are not considered. Under the proposed policies (particularly CO-162), losses of urban tree canopy are considered due to the overall beneficial effects related to energy conservation, air quality, aesthetics, community livability, and stormwater quality. The removal of mature trees (native or non-native) for development results in the loss of values associated with those trees. For example, when existing trees are removed for residential development, the new homes will not be able to use the existing trees to provide shade, which then contributes to the urban heat island effect and increased energy consumption.

Though consideration of urban tree canopy is promoted by CO-162, there is no requirement to preserve or replace canopy. Existing policies such as CO-163 require that new development plant trees, but the measures only require a minimum of one 15-gallon tree on each new residential lot and a minimum of two 15-gallon trees on each new residential corner lot. These minimum requirements alone are not likely to mitigate the removal of tree canopy for residential infill development, depending on the amount of tree canopy removed for a given project. Mitigation is recommended to include urban tree canopy policies that require equivalent compensation for canopy loss. Though the proposed mitigation may ultimately prevent a County-wide loss of tree canopy, there will still be temporal losses (meaning that new plantings will take time to mature and replace lost canopy). It is also probable that there will be net canopy losses within specific areas of the County. As infill lots develop, there will be less land available to support trees within the urban core. Some proportion of mitigation planting will need to take place outside of the particular urban area where the impact occurred. Therefore, overall impacts to urban tree canopy will remain *significant and unavoidable*.

MITIGATION MEASURES:

The following policies are proposed for inclusion in the General Plan Update to mitigate the impacts associated with the loss of tree canopy:

BR-3. The following General Plan policy shall be added: Removal of non-native tree canopy for development shall be mitigated by creation of new tree canopy equivalent to the acreage of non-native tree canopy removed. New tree canopy acreage shall be calculated using the 15-year shade cover values for tree species.

BR-4. The following General Plan policy shall be added: If new tree canopy cannot be created onsite to mitigate for the non-native tree canopy removed for new development, project proponents (including public agencies) shall contribute to Greenprint funding in an amount proportional to the tree canopy impacts of the specific project.

NO PROJECT ALTERNATIVE

The end of this chapter contains a table comparing the relative impacts of each Alternative, Table BR-3.

IMPACT: WETLAND AND RIPARIAN HABITAT

The No Project alternative includes the buildout of the 1993 General Plan along with reasonably foreseeable development, including the Easton and the Cordova Hills projects, as described in the Project Description chapter. Wetland and riparian habitat impacts would be as described in the Project discussions on infill development, the planned communities, Easton, and the southern end of Grant Line East (where Cordova Hills is located). Selection of the No Project alternative would lessen wetland and riparian impacts compared to the proposed project primarily because much of the Grant Line East and all of the Jackson Highway Corridor New Growth Areas would not be slated for development. However, this impact reduction does not change the significance finding, since there remains substantial wetland and riparian loss. Thus, the level of impact of the No Project alternative would be *significant and unavoidable*.

IMPACT: SPECIAL STATUS SPECIES

Special status species impacts would be as described in the Project discussions on infill development, the planned communities, Easton, and the southern end of Grant Line East (where Cordova Hills is located). Given the habitats that would be impacted under this Alternative, impacts to special status species would be *significant and unavoidable*.

IMPACT: NATIVE TREES

Native tree impacts would be as described in the Project discussions on infill development, the planned communities, Easton, and the southern end of Grant Line East (where Cordova Hills is located). Native trees occur throughout the County and impacts to native trees associated with urban development would be variable from

project to project. Given the extent of native tree resources in the No Project area, impacts to native trees would be *significant and unavoidable*.

IMPACT: TREE CANOPY

Tree canopy impacts would be as described in the Project discussions on infill development, the planned communities, Easton, and the southern end of Grant Line East (where Cordova Hills is located). Though the southern end of Grant Line East does not contain trees, and the planned communities contain fewer urban trees than are likely to be planted as part of development, development within the Easton area and the residential infill areas will remove substantial tree canopy. Existing General Plan policies do not recognize impacts to urban tree canopy unless the trees are native species. Though new development will be required to include urban trees, a net loss of canopy will still result. Development would not be subject to proposed Policy CO-162, which requires consideration of all species that contribute to tree canopy consistent with Greenprint, not just native species. In addition, proposed Policy CO-165 would not be applied, and trees planted in parking lots would not benefit from additional root growth media. This would lead to shorter life spans of these trees. Therefore, the overall canopy impacts would be greater if development occurred under the existing General Plan policies. Although some new trees would be planted in commercial developments to comply with current parking lot shade policies, the overall impact to tree canopy would be *significant and unavoidable*.

ALTERNATIVE 1: REMOVE GRANT LINE EAST

IMPACT: WETLAND AND RIPARIAN HABITAT

Selection of Alternative 1 would eliminate the Grant Line East New Growth Area and reduce the General Plan Update's overall impacts to wetland and riparian habitat by as much 426 acres. This alternative would be less detrimental to wetland and riparian habitat resources than the proposed project. However, this impact reduction does not change the significance finding, since there is substantial wetland and riparian loss elsewhere within the proposed project area. Thus, the level of impact would remain *significant and unavoidable*.

MITIGATION MEASURES:

General Plan policies and existing regulations provide all feasible protection for listed species. No mitigation is recommended.

IMPACT: SPECIAL STATUS SPECIES

The elimination of the Grant Line East New Growth Area would avoid the significant impacts to listed species in this area. However, the remaining proposed growth areas

(Jackson Highway Corridor, Easton Planning Area, and West of Watt) would still have a *significant and unavoidable* impact on special status species.

MITIGATION MEASURES:

General Plan policies and existing regulations provide all feasible protection for listed species. No mitigation is recommended.

IMPACT: NATIVE TREES

This alternative would eliminate Grant Line East New Growth Area. In regards to native trees, this would have little effect. The majority of this area's native trees (primarily cottonwoods) are located in the northern portion in old mine tailings. The impact associated with development of this area was not considered significant, and eliminating this area would not change this conclusion. The remaining proposed New Growth Areas (Jackson Highway Corridor, Easton Planning Area, and West of Watt) would still have a *significant and unavoidable* impact on native trees.

MITIGATION MEASURES:

See BR-1 and BR-2.

IMPACT: TREE CANOPY

The Grant Line East New Growth Area does not contain a substantial amount of tree canopy, though the removal of this New Growth Area would eliminate the minimal tree canopy impacts that would likely occur with development in this area. However, the impacts to tree canopy in the remaining New Growth Areas as previously described in the analysis of the proposed project are *significant and unavoidable*.

MITIGATION MEASURES:

See BR-3 and BR-4.

ALTERNATIVE 2: FOCUSED GROWTH

IMPACT: WETLAND AND RIPARIAN HABITAT

The focused New Growth Area contains 117 acres of vernal pools and swales. The pattern of development for the focused growth area is not defined; however, urbanization would likely convert much of the existing habitat to urban uses, which would potentially impact not only vernal pools but also a maximum of 43 acre of riparian woodland and 32 acres of stream/creek habitat. Plate BR-9 depicts the habitat types that would be affected under this alternative. As shown in Table BR-1, the focused

growth alternative could substantially reduce wetland and riparian impacts from potential urban conversion by eliminating the Grant Line East and a portion of the Jackson Highway (east of Excelsior Road) New Growth Areas. Although the exact amount of habitat acres impacted is unknown, it is reasonable to assume much of the habitat would be slated for urbanization. Selection of Alternative 2 could reduce the project's overall impacts to wetland and riparian habitat by 623 acres (368 acres of vernal pool/swales, 205 acres of riparian, and 50 acres of stream/creeks). This alternative would be less detrimental to wetland and riparian habitat resources than the proposed project and Alternative 1. However, this impact reduction does not change the significance finding, since there is substantial wetland and riparian loss elsewhere within the proposed project. Thus, the level of impact would remain *significant*.

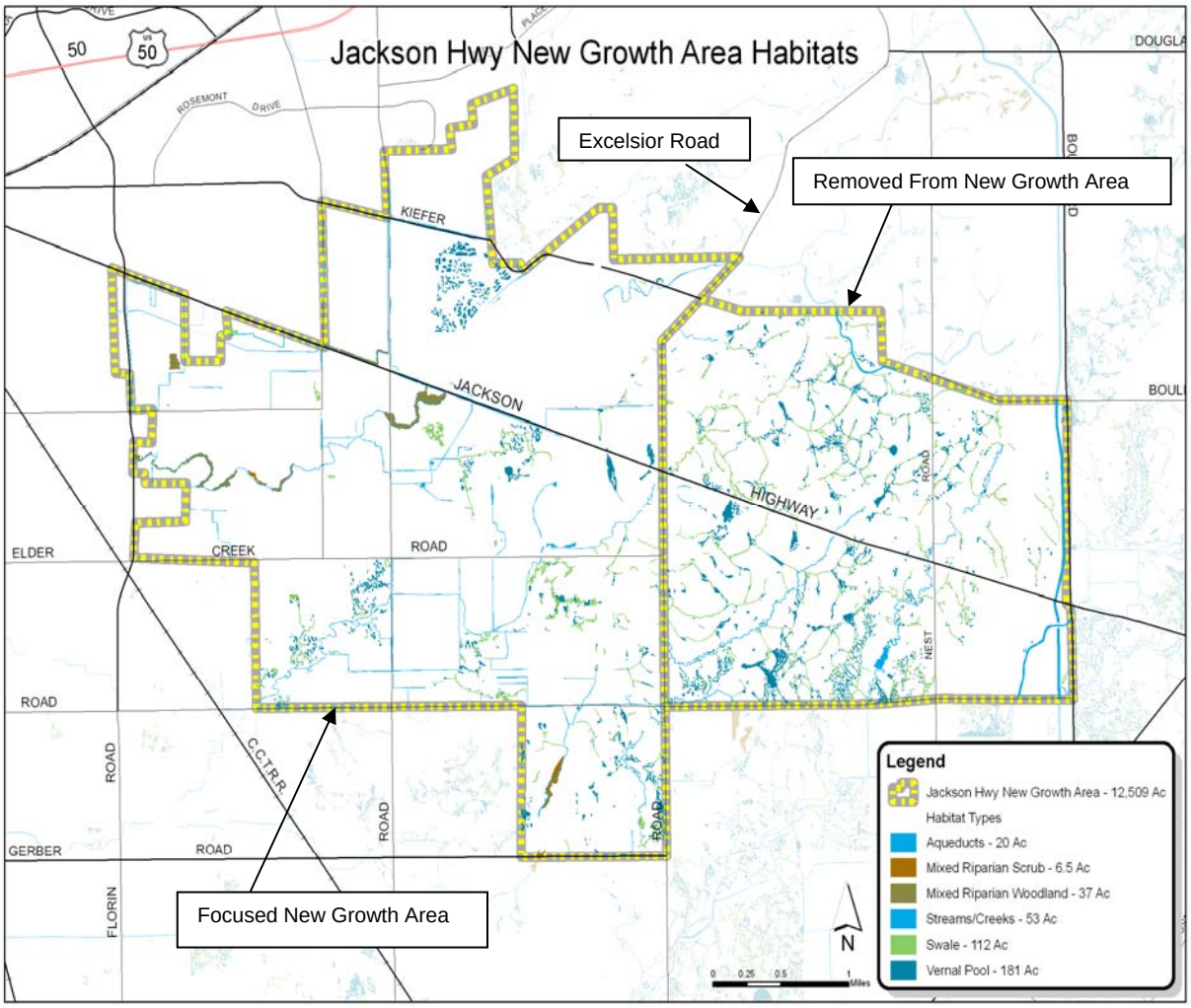
MITIGATION MEASURES:

General Plan policies and existing regulations provide all feasible protection for listed species. No mitigation is recommended.

Table BR-1: Habitat ~~Conserved~~ Impacts Avoided by Focused Growth Alternative (in acres)

	Growth Area	Vernal Pools/Swales	Riparian (woodland/scrub)	Streams/Creeks
Grant Line East	8,147	192	205	29
Jackson East of Excelsior	4,693	176	0	21
Total	12,840	368	205	50

Plate BR-9: Habitat Types, Jackson Highway Corridor New Growth Area and Focused Growth Area



IMPACT: SPECIAL STATUS SPECIES

As previously discussed in this chapter, there are special status species throughout the Jackson Highway Corridor New Growth Area. The reduction of land to be developed would decrease the number of listed species (especially vernal pool related) impacted. However, because there is habitat for listed species within the area that remains to be developed, impacts to special status species would remain *significant and unavoidable*.

MITIGATION MEASURES:

General Plan policies and existing regulations provide all feasible protection for listed species. No mitigation is recommended.

IMPACT: NATIVE TREES

As identified previously in this chapter, there are native trees scattered throughout the Jackson Highway Corridor New Growth Area and there are riparian oak woodlands concentrated along the creeks. While the reduction of land to be developed would decrease the number of native trees removed, the vast majority of the creeks are still located in the proposed development area. With increased land use densities to meet the housing units needed, the ability to preserve these natural corridors may decrease. Impacts to native trees in the Jackson Highway Corridor New Growth Area were considered potentially significant. This impact would remain *significant and unavoidable*.

MITIGATION MEASURES:

See BR-1 and BR-2.

IMPACT: TREE CANOPY

The tree canopy impacts of this alternative are less than that of the proposed project and of Alternative 1 because of the removal of the Grant Line East New Growth Area and the reduction in size of the Jackson Highway Corridor New Growth Area. However, the impacts to tree canopy in the remaining new growth areas as previously described in the analysis of the proposed project are *significant and unavoidable*.

MITIGATION MEASURES:

See BR-3 and BR-4.

ALTERNATIVE 3: MIXED USE

IMPACT: WETLAND AND RIPARIAN HABITAT

Removing the Grant Line East and Jackson Highway Corridor areas from the potential of urbanization substantially lessens impacts to wetland and riparian resources. Although the exact amount of habitat acres impacted is unknown, it is reasonable to assume much of the habitat would be slate for urbanization. Table BR-2 identifies habitat acreage which would not be impacted if Alternative 3 was selected.

Table BR-2: Habitat ~~Conserved~~ Impacts Avoided by Mixed Use Alternative (in acres)

	Growth Area	Vernal Pools/Swales	Riparian (woodland/scrub)	Streams/Creeks
Grant Line East	8,147	192	205	29
Jackson Highway	12,509	293	43	53
Total	20,656	485	248	82

Selection of Alternative 3 could reduce the General Plan Update's overall impacts to wetland and riparian habitat by approximately 815 acres, including 485 acres of vernal pools/swales, 248 acre of riparian and 82 acres of stream/creek habitat. This alternative would be less detrimental to wetland and riparian habitat resources than the proposed project or either Alternative 1 or 2. However, this impact reduction does not change the significance finding, since wetland and riparian loss occurs elsewhere within the proposed project area. Thus the level of impact would remain *significant and unavoidable*.

MITIGATION MEASURES:

General Plan policies and existing regulations provide all feasible protection for listed species. No mitigation is recommended.

IMPACT: SPECIAL STATUS SPECIES

Selection of Alternative 3 could reduce the General Plan Update's overall impacts to wetland and riparian habitat by approximately 815 acres, including 485 acres of vernal pools/swales, 248 acre of riparian and 82 acres of stream/creek habitat. This alternative would preserve a substantial amount of habitat occupied by special status species, thus reducing impacts to listed species to a greater amount than either Alternative 1 or 2. However, this impact reduction does not change the significance

finding, since special status species occur elsewhere within the County. Thus the level of impact would remain *significant and unavoidable*.

MITIGATION MEASURES:

General Plan policies and existing regulations provide all feasible protection for listed species. No mitigation is recommended.

IMPACT: NATIVE TREES

Under this alternative no native trees would be impacted within the Grant Line East and Jackson Highway Corridor New Growth Areas; however, there would still be removal of a considerable number of native trees within the currently urbanized areas of the County and in the Easton Planning Area. This impact remains *significant and unavoidable*.

MITIGATION MEASURES:

See BR-1 and BR-2.

IMPACT: TREE CANOPY

This alternative would eliminate the tree canopy impacts of the Jackson Highway Corridor and Grant Line East New Growth Areas, but would retain the tree canopy impacts in the West of Watt and Easton areas. In addition, new development would occur at higher densities within the existing urbanized sphere. Such development would result in *significant and unavoidable* impacts to the existing tree canopy because it would limit available locations for creating new sustainable tree canopy.

MITIGATION MEASURES:

See BR-3 and BR-4.

Table BR-3: Comparison of Alternatives

Resource	Proposed Project	No Project Alternative	Alternative 1: Remove Grant Line East	Alternative 2: Focused Growth	Alternative 3: Mixed Use
Wetlands and riparian	SU, *greatest impact*	SU, *less impact than Alternative 1*	SU, *less impact than Proposed Project*	SU, *less impact than Alternative 1*	SU, *least impact*
Special status species	SU, *greatest impact*	SU, *less impact than Alternative 1*	SU, *less impact than Proposed Project*	SU, *less impact than Alternative 1*	SU, *least impact*
Native trees	SU, *greatest impact*	SU, *less impact than Alternative 1*	SU, *less impact than Proposed Project*	SU, *less impact than Alternative 1*	SU, *least impact*
Tree canopy	SU, *greatest impact*	SU, *less impact than Alternative 1*	SU, *less impact than Proposed Project*	SU, *less impact than Alternative 1*	SU, *least impact*

Key
LS = Less than Significant Impact
PS = Potentially Significant Impact
SU = Significant and Unavoidable Impact

Note: LS determinations refer to those impacts that include mitigation to reduce the impact to a less-than-significant level.

9 TRANSPORTATION AND CIRCULATION

INTRODUCTION

This section addresses the transportation impact analysis of the Proposed General Plan Update and Alternatives. It covers the methodology, assumptions, and conclusions of the analysis of the proposed transportation systems. Additional information regarding the transportation analysis is included in the technical appendix to this document (Appendix D). All of the tables that provide level of service data for the analyzed roadways are contained within the Appendix (the tables span over 100 pages) so that the chapter itself can focus on overall impacts. This chapter does contain exhibits that graphically depict roadway segment function and impacts.

This section is organized to discuss the various modes of transportation within the County. The general organization of transportation discussions throughout the chapter is as follows:

- Roadways
    - Passenger
    - Freight
- Transit
- Bikeways
- Pedestrian facilities
- Other Transportation Networks
    - Aviation
    - Rail
    - Port

ENVIRONMENTAL SETTING

Sacramento County has an established and comprehensive transportation system to serve the diverse travel needs of the County. It includes Federal and State highways, local roads, urban arterials, rural highways and streets, rail and bus transit services, freight rail, port facilities and airports. The transportation system and associated travel patterns are heavily influenced by the presence of downtown Sacramento and the State Capitol on the west side of the County. The County is also strategically located at the confluence of two federal interstate highways serving east-west and north-south travel. This section describes the existing transportation system and its current usage.

EXISTING ROADWAY SYSTEM

The geographic setting of Sacramento County affected the historical development of the roadway system. The roadway system is focused on downtown Sacramento and is limited by Sacramento River and American River crossings.

All of the major interregional roadways radiate in a spoke-like fashion from the hub of downtown Sacramento. Interstate 5 and State Route 99 are generally parallel north-south routes. Interstate Route 80 and U.S. 50 serve east-west trips. The interstate routes, all of U.S. 50 and most of S.R. 99 are limited access freeways within Sacramento County.

The arterial system within the County serves local community areas and provides access to the interregional freeway system. It is also utilized for longer distance intra-county trips. The majority of the arterial system follows a north-south, east-west grid pattern. Exceptions are generally older roadways that originally served long distance trips before they were replaced in function by freeways. For Sacramento County, the American River is a major obstacle to north-south travel. River crossings are limited, particularly east of the City of Sacramento.

The existing major street and highway capacity designations in the County are shown on the Existing General Plan Transportation Plan (see Plate TC-1) and described as follows:

Collectors: Two-lane roadways carrying local traffic to or from arterials. Direct access to abutting private property is generally permitted.

Rural Collectors: Two-lane roads in rural areas. These roads are intended to have right-of-way sufficient for four lanes to maintain the potential for capacity increases in the post-2010 planning period.

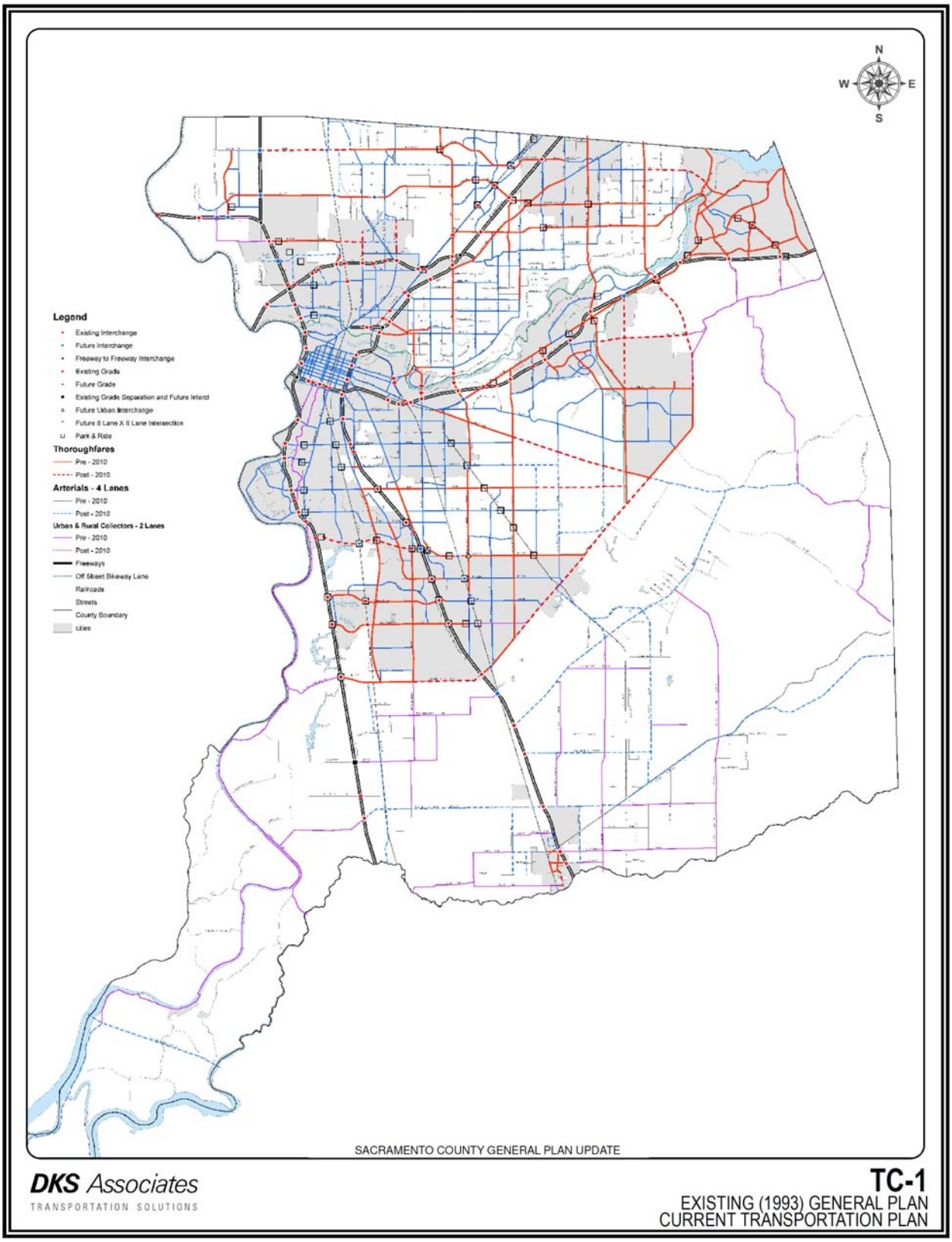
Arterials: Major four-lane streets typically constructed with either a center two-way left-turn lane or a raised median and bikeway facilities. Access may be provided to adjacent properties through a two-way left-turn lane or more restricted through a raised center median. Arterials provide more access than thoroughfares, but less access than collectors do.

Thoroughfares: Six-lane high volume streets typically constructed with a raised median and bikeway facilities. Access to abutting private property and intersecting local streets shall generally be restricted.

Freeways: State-operated, limited access facilities primarily for inter-regional travel and intra-urban access.

Limited Access Roadways: County-declared freeways are streets with limited access designed to decrease driveway related activity and improve traffic flow.

Plate TC-1 Existing (1993) General Plan Transportation Plan



Passenger Facilities

All types of major streets and highways listed above are accessible for passenger vehicle transportation.

Freight Facilities

The majority of goods movement in Sacramento County is provided by truck transportation. Sacramento also has considerable long-distance trucking activity because of the presence of Interstate Routes 5 and 80.

The Service Transportation Assistance Act of 1982 (STAA) provides a national network of truck routes with uniform vehicle size and weight standards. Trucks that meet STAA standards may exceed State of California legal standards, and are therefore limited to the STAA network. All state and national highways within the County have been designated as truck routes by the California Department of Transportation. Some of these routes are STAA routes (National Network and Terminal Access), while others are California Legal Network and California Legal Advisory Route facilities. Truck routes on city or county roads are designated by the specific city or county. Designated truck routes in the Sacramento Area are summarized in Appendix D.

Truck routes are designated to minimize problems caused by trucks that are oversized, overweight, or too tall for specific roads. Truck regulations also aim to reduce hazards to pedestrians, bicyclists, and light vehicle traffic that may occur when trucks have unrestricted access to all roads. Truck routes and regulations are enforced by the California State Highway Patrol, County Sheriff, and City Police.

Both I-5 and I-80 currently carry about 2,500 through-truck trips per day through Sacramento. A greater proportion of truck traffic has an origin and/or destination in the Sacramento region, operates solely within the region. Truck traffic on selected State highway locations within the County is shown in Table TC-1.

GREYHOUND

Greyhound provides PackageXpress freight service. The Greyhound bus station is located at 715 L Street in downtown Sacramento, and is open 24 hours per day. Greyhound PackageXpress ships oversized, heavy weight, same day, and overnight freight.

Table TC-1 Selected Truck Volumes on State Highways

Route	Location	Average Annual Daily Truck Volume	Average Annual Daily Traffic Volume	Truck Percentage of Total Vehicles
I-5	San Joaquin Co Line	13,900	57,000	24%
	US 50	14,700	153,000	10%
	I-80	15,600	163,000	10%
	SR 99	10,100	80,000	13%
SR 12	SR 160	2,480	17,100	15%
SR 16	US 50	5,490	61,000	9%
	Sunrise Boulevard	920	10,200	9%
US 50	I-5	6,770	168,000	4%
	SR 51 / 99	8,350	225,000	4%
	Sunrise Boulevard	8,260	149,000	6%
	Scott Road	6,080	95,000	6%
SR 51 (Bus 80)	US 50	8,820	163,000	5%
	Exposition Boulevard	8,820	166,000	5%
	I-80	7,520	132,000	6%
I-80	I-5	8,290	87,000	10%
	SR 51	9,300	239,000	4%
	Greenback Lane	9,220	184,000	5%
SR 99	San Joaquin Co Line	9,190	61,000	15%
	Elk Grove Boulevard	10,000	65,000	15%
	Florin Road	11,900	184,000	6%
	US 50	9,970	221,000	5%
SR 104	SR 99	820	10,300	8%
SR 160	SR 12	1,400	15,000	9%
	Isleton Bridge	380	3,950	10%
	SR 220	190	3,300	6%
	Walnut Grove Bridge	200	2,750	7%
SR 220	SR 160	50	750	6%
SR 244	Auburn Boulevard	4,800	32,000	15%
Source: Caltrans Truck Traffic Report, 2006.				

TRANSIT

WITHIN SACRAMENTO COUNTY

REGIONAL TRANSIT

The Sacramento Regional Transit District (RT) operates 97 bus routes and 37.4 miles of light rail covering a 418 square-mile service area. Buses and light rail run 365 days a year using 76 light rail vehicles, 256 buses powered by compressed natural gas (CNG) and 16 shuttle vans. Buses operate daily from 5 a.m. to 11:30 p.m. every 15 to 75 minutes, depending on the route. Light rail trains begin operation at 4:30 a.m. with service every 15 minutes during the day and every 30 minutes in the evening. The Blue Line trains operate from the Watt/I-80 Station through Downtown Sacramento to the Meadowview Station until 1:00 a.m. The Gold Line trains operate from Folsom Station to the Downtown Sacramento Valley Station until 7:00 p.m.

Passenger amenities include 47 light rail stops or stations, 25 bus and light rail transfer centers and 18 free park-and-ride lots. RT also serves more than 3,600 bus stops throughout Sacramento County.

Annual ridership has steadily increased on both the bus and light rail systems from 14 million passengers in 1987 to more than 31 million passengers in FY 2006. Weekday light rail ridership averages about 50,000, which accounts for approximately 40% of the total system ridership. Bus weekday ridership has reached an average of 58,000 passengers per day.

RT's entire bus and light rail system is accessible to the disabled community. In addition, Paratransit, Inc. (PI) operates a door-to-door, shared ride, paratransit service for individuals in the greater Sacramento area who are unable to use RT buses and light rail due to a disability. RT helps finance the costs of this service as part of its responsibilities under the Americans with Disabilities Act (ADA). Riders must meet the ADA eligibility requirements to qualify and must register in advance with RT to receive Paratransit service. PI's paratransit services in the Sacramento region consist of two types of services, Demand Response (DR) and Consolidated Transportation Service Agency (CTSA). DR services are scheduled and operated directly by PI with buses and taxies. DR trips can be scheduled from two days in advance up to the same day as the service request. In addition, some DR service is provided on a subscription basis. CTSA services are operated by various agencies under contract to PI. The operators of CTSA services are employed by agencies and not by PI. Many agencies use volunteer operators to provide their services. Paratransit ridership has more than doubled since 1993.

ELK GROVE E-TRAN

E-Tran is the bus system of the City of Elk Grove. Routes are coordinated with RT buses and light rail and South County Transit/Link (SCT/Link) to areas outside the city. Main transfer points are at the Cosumnes River College, Meadowview Light Rail

Station, and Laguna Town Hall. E-Van provides services required under the Americans with Disabilities Act (ADA) and for seniors that are age 75 years old and older. Services are funded with Transportation Development Act (TDA) and Federal Transit Administration (FTA) funds.

The system operates 10 commuter routes, 6 local routes, 5 ez-tran (Neighborhood Shuttle) routes, and 7 supplemental routes. In June 2008, 94,168 riders were accommodated.

FOLSOM STAGE LINE

The Folsom Stage Line buses run Monday through Friday. The three local bus routes provide a convenient way for riders to travel to major employers and points of interest within Folsom. The bus routes also connect with the Historic District, Glenn Drive, and Iron Point Road light rail stations.

SCT/LINK

South County Transit/Link (SCT/Link) provides bus service in the City of Galt and surrounding areas. Four in-town bus routes are operated in Galt. The Highway 99 Express provides direct intercity service with Lodi, Elk Grove, and Florin/65th Street Transit Center in Sacramento. The Delta Route provides service to the Delta area, Galt, and Lodi. SCT/Link also provides Dial-A-Ride services.

RANCHO CORDOVAN

The City of Rancho Cordova has initiated a shuttle system that is intended to provide connections to the regional transit system along the Sacramento Regional Transit Gold Line. The initial service will provide access between the Cordova Town Center Station and residential and business areas along Zinfandel Drive south of Highway 50. Additional shuttle routes are planned in the near future.

OUTSIDE SACRAMENTO COUNTY

Several public transit services have origins and/or destinations outside Sacramento County that provide connections primarily in Downtown Sacramento. They include the following, which are described in more detail in Appendix D:

- Amador Regional Transit Service
- El Dorado Transit
- Fairfield and Suisun Transit
- Greyhound

- Placer County Transit
- Roseville Transit
- San Joaquin Regional Transit District
- Yolobus
- Yuba-Sutter Transit

BIKEWAYS

Officially designated bicycle facilities are classified as Class I, Class II, and Class III. They are defined as the following:

Class I: Off-street bike trails or paths that are physically separated from streets or roads used by motorized vehicles.

Class II: On-street bike lanes with signs, striped lane markings, and pavement legends.

Class III: On-street bike routes marked by signs and shared with motor vehicles and pedestrians. Optional four-inch edge lines painted on the pavement.

In 1994, the County of Sacramento adopted the 2010 Bikeway Master Plan. The goal of the Plan is to develop a bikeway system that will benefit the recreational and transportation needs of the public. The use of bicycles will reduce the amount of vehicle emissions and improve air quality. The Bikeway Master Plan calls for 790 miles of on-street bike lanes in Sacramento County by 2010. In addition, there are 110 miles of off-street bike trails planned for construction in Sacramento County by 2010. At the time of this writing, it appears that the County will not meet its plan goals for construction of on-street and off-street bicycle facilities. The County Bikeway Master Plan is currently being updated.

PEDESTRIAN FACILITIES

The provision of pedestrian facilities varies greatly in Sacramento County. In unincorporated Sacramento County, most of the roadway infrastructure was constructed post World War II when emphasis was placed on the automobile as the emerging dominant form of transportation. Thus, many roadways lack pedestrian infrastructure or a continuous pedestrian infrastructure.

In November 2007, the Board of Supervisors approved the Sacramento County Pedestrian Master Plan, which establishes goals and strategies to increase pedestrian safety and improve walkability in the Sacramento County unincorporated area. Development of projects included in the plan will enhance walking as a viable

transportation alternative. Walkable communities add to personal health and recreation, make neighborhoods more livable, and help to reduce pollution.

OTHER TRANSPORTATION NETWORKS

AVIATION

Major and minor airports within Sacramento County are listed in Table TC-2 and illustrated on Plate TC-2.

Sacramento International Airport (SMF) is the major commercial airport for the Sacramento region. The airport is located in the northwest portion of the County, and is owned and operated by the County. It is the only airport in the county that provides regularly scheduled passenger service. The airport is served by 14 major carriers and one commuter airline, with over 150 scheduled departures daily. Cargo service is also accommodated at the airport, along with general aviation. The airport has two parallel runways, each 8,600 feet long. In 2007, over 10.7 million passengers were accommodated. The airport is currently expanding its terminal facilities.

Executive Airport is a major general aviation airport located in the south area of the City of Sacramento. The airport is owned by the City of Sacramento and operated by the County. Over 30 businesses operate at Executive offering a wide variety of aviation related services including a full service fixed base operator (FBO), flight schools, aircraft maintenance, avionics, insurance, aerial photography, and a restaurant.

Mather Airport, the former Mather Air Force Base, is located in the unincorporated County adjacent to the City of Rancho Cordova. The airport is owned and operated by the County. Primarily a cargo airport, Mather also accommodates general aviation and military operations. The main runway at Mather is 11,300 feet long. Areas of the former Air Force Base surrounding the air facilities have been or will be redeveloped primarily with airport-related, commercial, and industrial uses.

Franklin Field is a public use airport owned and operated by the County of Sacramento. It is located in the unincorporated County south of the City of Elk Grove. The facility is considered an uncontrolled airport since it does not have an air traffic control tower or personnel. There are approximately 36,000 operations each year at Franklin Field, including flight training.

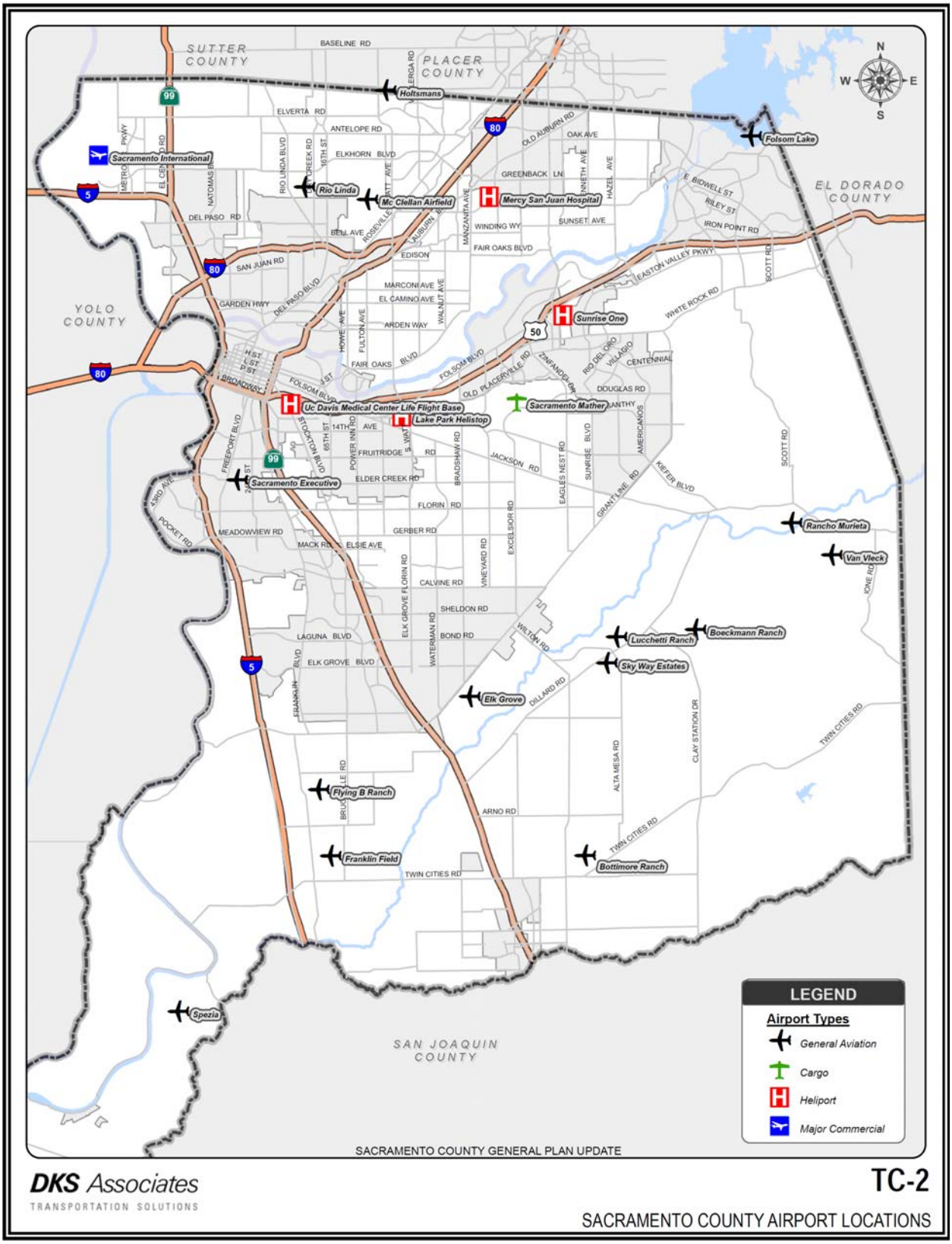
McClellan Public Airport, the former McClellan Air Force Base, is owned and operated by the County of Sacramento. The public airfield features a 10,600 foot lighted runway approved for day/night use, shared by the U.S. Coast Guard. The airfield also hosts a full-service FBO. The airport is located in the unincorporated County about 12.5 miles north of downtown Sacramento off Watt Avenue near Business 80 and I-5. Areas of the former Air Force Base surrounding the air facilities have been or will be redeveloped as McClellan Park, a business park with diverse amenities including aircraft-related industries, technology incubator, data call centers, and hotel and conference facilities.

In addition to the above air facilities, Sacramento County has 11 general aviation airports, five heliports, one seaplane base, and minor private airstrips (often used for agricultural purposes).

Table TC-2 Existing Sacramento County Airports

Name	Type
Sacramento International Airport	Major Commercial
Mather Airport	Cargo
Executive Airport	General Aviation
Franklin Field	General Aviation
McClellan Public Airport	General Aviation
Boeckmann Ranch	General Aviation
Bottimore Ranch	General Aviation
Elk Grove	General Aviation
Flying B Ranch	General Aviation
Holtsmans	General Aviation
Lucchetti Ranch	General Aviation
Rancho Murieta	General Aviation
Rio Linda	General Aviation
Sky Way Estates	General Aviation
Spezia	General Aviation
Van Vleck	General Aviation
Lake Park Helistop	Heliport
Mercy San Juan Hospital	Heliport
Sunrise One	Heliport
UC Davis Medical Center Life Flight Base	Heliport
US Davis Medical Center Tower II	Heliport
Folsom Lake	Seaplane Base
Source: Federal Aviation Administration, 2008.	

Plate TC-2 Major and Minor Airports in Sacramento County



RAIL

PASSENGER FACILITIES

Passenger rail service in Sacramento County is provided by RT (light rail) and Amtrak (heavy rail).

RT light rail has two lines, the gold line and blue line that links the northern, eastern, and southern areas in Sacramento County to downtown Sacramento through approximately 37 miles of track. Light rail operates in a mixture of grade separated and in-street settings.

Amtrak provides three train services through Sacramento County: Capitol Corridor, San Joaquins, and California Zephyr. The Capitol Corridor operates from Auburn through Sacramento to San Jose. The San Joaquins operate from both Oakland to Bakersfield and from Sacramento to Bakersfield. The California Zephyr goes from San Francisco through Sacramento to Chicago, Illinois.

FREIGHT FACILITIES

Sacramento County is served by the Union Pacific Railroad (UP). UP operates several mainlines in the County, as well as numerous sidings and switching lines. The major east-west line extends to the San Francisco Bay area to the west, leaving the City of Sacramento via the I Street Bridge. To the east, this line continues into Placer County to the J. R. Davis Classification Yard in Roseville, the largest rail facility on the West Coast. The line continues from Roseville across the Sierra, providing transcontinental service. To the north, UP operates a mainline through northern California to the Pacific Northwest. To the south, UP operates two mainlines to Stockton, with continuation to Southern California and the Southwest.

Central California Traction Company service between Lodi and Sacramento was suspended in August of 1998. The main track is out of service, but is being kept for future service needs.

PORT

The port of Sacramento is located on the west side of the Sacramento River. The Sacramento River and the Deep Water Ship Channel provide navigable waterways to the Bay Area and the Pacific Ocean. The port is within Yolo County, but Sacramento County and the City of Sacramento are members of the Port Authority that operates the facility. The port is mainly used to transport bulk agricultural commodities and large, bulky products.

REGULATORY SETTING

STATE

The Guide for the Preparation of Traffic Impact Studies (California Department of Transportation [Caltrans] 2002) identifies circumstances under which Caltrans determines that a traffic impact study would be required. The document also details information that is to be included in the study, analysis scenarios, and guidance on acceptable analysis methodologies.

In addition to the guidelines, Caltrans prepares **Transportation Concept Reports** (TCRs) for each of its facilities. A TCR is a long-term planning document that each Caltrans district prepares for every state highway or portion thereof in its jurisdiction. This document usually represents the first step in Caltrans' long-range corridor planning process. The purpose of a TCR is to determine how a highway will be developed and managed so that it delivers the targeted level of service (LOS) and quality of operations that are feasible to attain over a 20-year period. These are indicated in the "route concept." In addition to the 20-year route concept level, the TCR includes an "ultimate concept," which is the ultimate goal for the route beyond the 20-year planning horizon. Ultimate concepts must be used cautiously, however, because unforeseen changes in land use and other variables make forecasting beyond 20 years difficult.

LOCAL

The Metropolitan Transportation Plan (MTP) 2035 is a long-range planning document for identifying and programming roadway improvements throughout the Sacramento region (Sacramento Area Council of Governments [SACOG] 2008). The MTP2035 invests $42 billion over 28 years, proactively linking transportation, land use, and air quality. The MTP gives individuals more options for travel, with substantial investments to enable people to walk, bike, or use transit in our communities. The MTP2035 focuses on six principles: Smart Land Use, Environmental Quality & Sustainability, Financial Stewardship, Economic Vitality, Access & Mobility, and Equity & Choice.

The investment in transit ($14.3 billion) is 21% higher than the last MTP in 2002. Bicycle and pedestrian projects get $1.4 billion (a 56% increase). Strategic investments in roads ($11.3 billion) and road maintenance and rehabilitation ($12.4 billion) are also included. The MTP also invests $2.3 billion in programs and planning, such as rideshare matching, 511, community design grants to support local smart growth efforts, and Spare the Air campaigns.

The MTP2035 builds on the Blueprint Preferred Growth Scenario, which visions more housing and transportation choices and promotes better land uses and quality design for our region in 2050. The Blueprint encourages more livable communities by: providing a variety of transportation choices; offering housing choices and opportunities; taking advantage of compact development; using existing assets; providing mixed land uses; preserving open space, farmland, and natural beauty through natural resources

conservation; and encouraging distinctive, attractive communities with quality design. The $42 billion planned in the MTP2035 provides the infrastructure needed to support the Blueprint influenced land uses in local jurisdictions across the six-county region.

The Sacramento County Department of Transportation's (DOT) Traffic Impact Guidelines (June 2004) define the significance thresholds for traffic and circulation impacts in the County. Sacramento County defines the minimum acceptable operation level for its roadways and intersections to be LOS "D" for rural areas and LOS "E" for urban areas. The urban areas are those areas within the Urban Service Boundary (USB) as shown in the Land Use Element of the County General Plan. The areas outside the USB are considered rural. These thresholds were used as guidelines to project the need for new or upgraded facilities.

The Sacramento County General Plan Circulation Element, adopted in 1993, focuses on providing roadways for growing automobile demands and alternative modes of transportation. This requires improving those alternatives through regional coordination, improved funding, better land use and design, and fair pricing. The overarching goal of the element seeks a balanced transportation system that moves people and goods in a safe and efficient way that minimizes environmental impacts, supports urban land uses, and serves rural needs.

The 2010 Sacramento City/County Bikeway Master Plan (Sacramento County 1992) identifies existing and planned bicycle routes throughout the County. The County is currently in the process of updating their Bikeway Master Plan.

The Sacramento County Pedestrian Master Plan (PMP) (Sacramento County, 2007) identifies methods to improve pedestrian connectivity and pedestrian safety within the public right-of-way in areas of the unincorporated County that are already developed with a roadway system. The PMP provides a framework for prioritizing pedestrian improvements, identifies a 10-year capital improvement plan, and specifies a funding strategy to ensure implementation.

PMP policies represent a set of principles that strive to accomplish the overarching goal of improving pedestrian safety and access in the unincorporated areas of the County. Policies include:

- creating a safe street environment for pedestrians;
- developing, building, and maintaining a pedestrian network that is accessible to all;
- developing, building, and maintaining a convenient and well-connected pedestrian network that offers a viable alternative to the use of automobiles;
- creating a comfortable and aesthetically interesting street environment for pedestrians;
- pursuing cost-effective means to construct and improve pedestrian facilities;

- promoting walking as a convenient and healthy travel alternative; and
- increasing public awareness on pedestrians' rules of the road.

SIGNIFICANCE CRITERIA

Significance criteria for unincorporated Sacramento County, the state freeway system, and other jurisdictions are based upon the applicable standards of each jurisdiction.

UNINCORPORATED SACRAMENTO COUNTY

ROADWAY SEGMENTS

A project is considered to have a significant effect if it would:

- result in a roadway operating at an acceptable LOS (LOS "D" for rural areas and LOS "E" for urban areas) to deteriorate to an unacceptable LOS; or
- increase the volume to capacity (V/C) ratio by more than 0.05 on a roadway that is operating at an unacceptable LOS without the project.

BICYCLE AND PEDESTRIAN FACILITIES

A project is considered to have a significant effect if it would:

- eliminate or adversely affect an existing bikeway or pedestrian facility in a way that would discourage its use;
- interfere with the implementation of a planned bikeway as shown in the Bicycle Master Plan, or be in conflict with the Pedestrian Master Plan.
- result in unsafe conditions for bicyclists or pedestrians, including unsafe bicycle/pedestrian, bicycle/motor vehicle, or pedestrian/motor vehicle conflict.
- result in land development inconsistent with General Plan principles for bicycle and pedestrian mobility.

SAFETY

A project is considered to have a significant effect if it would:

- substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

FREEWAY SYSTEM

For the freeway system, a significant impact occurs when:

- An increase in traffic volumes results in the traffic operations of the freeway mixed-flow lanes deteriorating from LOS "E" or better to LOS "F."
- Any increase in traffic volumes on freeway mixed flow lanes where unacceptable LOS "F" conditions exist without the project or alternative.

TRANSIT

A significant impact to the transit system occurs when:

- project generated ridership, when added to existing or future ridership, exceeds available or planned system capacity.
- the project is inconsistent with General Plan principles for transit-supportive development.
- an adequate and appropriate level of transit services is not available in a timely manner to serve new development.

OTHER JURISDICTIONS

CITY OF CITRUS HEIGHTS

ROADWAY SEGMENTS

A project is considered to have a significant effect if it would:

- result in a roadway operating at an acceptable LOS "D" or better to deteriorate to an unacceptable LOS "E" or worse; or
- increase the V/C ratio by more than 0.05 on a roadway that is operating at an unacceptable LOS without the project.

CITY OF ELK GROVE

ROADWAY SEGMENTS

A project is considered to have a significant effect if it would:

- result in a roadway operating at an acceptable LOS "D" or better to deteriorate to an unacceptable LOS "E" or worse; or
- increase the V/C ratio by 0.05 or more on a roadway that is operating at an unacceptable LOS without the project.

CITY OF FOLSOM

ROADWAY SEGMENTS

A project is considered to have a significant effect if it would:

- result in a roadway operating at an acceptable LOS "C" or better to deteriorate to an unacceptable LOS "D" or worse; or
- increase the V/C ratio by 0.05 or more on a roadway that is operating at an unacceptable LOS without the project.

CITY OF RANCHO CORDOVA

ROADWAY SEGMENTS

A project is considered to have a significant effect if it would:

- result in a roadway operating at an acceptable LOS "D" or better to deteriorate to an unacceptable LOS "E" or worse; or
- increase the V/C ratio by 0.05 or more on a roadway that is operating at an unacceptable LOS without the project.

CITY OF SACRAMENTO

ROADWAY SEGMENTS

A project is considered to have a significant effect if it would:

- result in a roadway operating at an acceptable LOS "C" or better to deteriorate to an unacceptable LOS "D" or worse; or
- increase the V/C ratio by 0.02 or more on a roadway that is operating at an unacceptable LOS without the project.

COUNTY OF EL DORADO

ROADWAY SEGMENTS

A project is considered to have a significant effect if it would:

- result in a roadway operating at an acceptable LOS "E" or better to deteriorate to an unacceptable LOS "F" or worse; or
- increase the V/C ratio by more than 0.02 on a roadway that is operating at an unacceptable LOS without the project.

COUNTY OF PLACER

ROADWAY SEGMENTS

A project is considered to have a significant effect if it would:

- result in a roadway operating at an acceptable LOS “C” or better to deteriorate to an unacceptable LOS “D” or worse; or
- increase the V/C ratio by 0.01 or more on a roadway that is operating at an unacceptable LOS without the project.

CITY OF ROSEVILLE

ROADWAY SEGMENTS

A project is considered to have a significant effect if it would:

- result in a roadway operating at an acceptable LOS “C” or better to deteriorate to an unacceptable LOS “D” or worse; or
- increase the V/C ratio by more than 0.05 on a roadway that is operating at an unacceptable LOS without the project.

METHODOLOGY

Determination of roadway operating conditions is based upon comparison of traffic volumes to roadway capacity. “Levels of service” describe roadway operating conditions. Level of service is a qualitative descriptor of the quantitative effect of a number of factors, which include speed and travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience, and operating costs. Levels of service are designated "A" through "F" from best to worst, which cover the entire range of traffic operations that might occur. Levels of Service (LOS) "A" through "E" generally represent traffic volumes at less than roadway capacity, while LOS "F" represents over capacity and/or forced conditions. Table TC-3 presents the level of service definitions. The existing traffic conditions are based on traffic counts conducted for roadways in 2006 and 200. The resulting LOS for roadway segments and freeway mainline segments was determined using guidance from Sacramento County and other local jurisdictions.

Table TC-3 Level of Service Definitions

Level of Service A describes primarily free-flow operations at average travel speeds, usually 90 percent of the free-flow speed for the given street class. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control delay at signalized intersections is minimal. ***Level of Service B*** describes reasonably free-flow operations at average travel speeds, usually 70 percent of the free-flow speed for the given street class. The ability to maneuver within the traffic stream is only slightly restricted and control delay at signalized intersections are not significant. ***Level of Service C*** describes stable operations: however, ability to maneuver and change lanes in midblock locations may be more restricted than at LOS B and longer queues, adverse signal coordination, or both may contribute to lower average travel speeds of about 50 percent of the free-flow speed for the street class.	***Level of Service D*** borders on a range in which small increases in flow may cause substantial increases in delay and decreases in travel speed. LOS D may be due to adverse signal progression, inappropriate signal timing, high volumes, or a combination of these factors. Average travel speeds are about 40 percent of the free-flow speed. ***Level of Service E*** is characterized by significant delays and average travel speeds of 33 percent or less of the free-flow speed. Such operations are caused by a combination of adverse progression, high signal delay, high volumes, extensive delays at critical intersections and inappropriate signal timing. ***Level of Service F*** is characterized by urban street flow at extremely low speeds, typically one-third to one-fourth of the free-flow speed. Intersection congestion is likely at critical signalized locations, with high delays, high volumes and extensive queuing.
Source:	*Highway Capacity Manual*, Transportation Research Board, Special Report No. 209, Washington, D.C., 2000.

Future traffic conditions were determined using the SACOG SACMET traffic demand forecast model and evaluated under cumulative plus project (or alternative) scenarios. This model is used throughout the region to predict future travel conditions, including roadway operating conditions and transit ridership. The model version used in this analysis is taken from SACOG's preparation of the 2007 Metropolitan Transportation Plan (MTP) (SACMET 07). Land use and transportation network databases were modified to reflect the specific characteristics of the General Plan Update and alternatives. Outside the unincorporated county, land use is based upon SACOG's projections for the 2035 Metropolitan Transportation Plan prorated to 2030, the horizon year of the General Plan Update.

Three major quarries are proposed in Eastern Sacramento County south of White Rock Road. Estimates of the truck traffic from those proposed quarries were included in the

cumulative traffic demand with and without the General Plan Update. The amount of truck traffic on each roadway segment from the three proposed quarries was based on estimates in the Teichert Quarry Draft EIR.

An important element of the General Plan Update is the inclusion of smart growth principles in the land use and transportation planning. At a General Plan analysis level, the necessary detail to fully analyze and evaluate the effectiveness of these smart growth principles is unavailable, since smart growth success is dependent on the specific characteristics of each developed area. Such level of detail will be unavailable until specific land use proposals are crafted. Thus, the analysis in this document may be somewhat conservative by not fully incorporating potential smart growth benefits. This conservatism may include overestimation of traffic volumes and underestimation of walk, bike, and transit mode share. A sensitivity analysis has been prepared to consider the potential benefits of smart growth, and is provided at the end of the Transportation and Circulation section.

CEQA AND PROJECT ALTERNATIVES

The transportation impacts of the General Plan Update have been evaluated under a number of alternatives and scenarios, which are described within the Project Description chapter. Brief descriptions with information specific to the transportation analysis are also included below. Table TC-4 summarizes the development levels associated with each alternative.

Table TC-4 Development Summary for Transportation Analysis

Area		Housing Units																
			Cumulative (2030) Conditions						Growth (Beyond 2005)						Difference from No Project			
		2005	1993 General Plan	No Project	Proposed General Plan	Without Grant Line East	Focused Growth	Mixed-use	1993 General Plan	No Project	Proposed General Plan	Without Grant Line East	Focused Growth	Mixed-use	Proposed General Plan	Without Grant Line East	Focused Growth	Mixed-use
Unincorporated Sacramento County																		
Specific/Comprehensive Plans		8,614	36,486	36,486	36,486	36,486	36,486	41,286	27,872	27,872	27,872	27,872	27,872	32,672	0	0	0	4,800
Growth Areas	Grant Line East	4	4	8,345	22,974	4	4	4	0	8,341	22,970	0	0	0	14,629	-8,341	-8,341	-8,341
	Jackson Corridor	352	387	387	35,607	35,607	35,607	387	36	36	35,256	35,256	35,256	36	35,220	35,220	35,220	0
	West of Watt	368	480	480	4,368	4,368	4,368	6,368	112	112	4,000	4,000	4,000	6,000	3,888	3,888	3,888	5,888
Other (includes Com Corridors)		189,020	208,446	208,446	227,446	227,446	227,446	242,346	19,426	19,426	38,426	38,426	38,426	53,326	19,000	19,000	19,000	33,900
Subtotal		198,357	245,803	254,144	326,881	303,911	303,911	290,391	47,446	55,787	128,524	105,554	105,554	92,034	72,737	49,767	49,767	36,247
Remainder of Sacramento County																		
SOI Areas	Folsom	0	12,867	12,867	12,867	12,867	12,867	12,867	12,867	12,867	12,867	12,867	12,867	12,867	0	0	0	0
	Rancho Cordova	27	1,216	1,216	1,216	1,216	1,216	1,216	1,189	1,189	1,189	1,189	1,189	1,189	0	0	0	0
	Panhandle	0	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	0	0	0	0
	Natomas Vision Area	394	7,964	7,964	7,964	7,964	7,964	7,964	7,570	7,570	7,570	7,570	7,570	7,570	0	0	0	0
Cities in Sacramento Co[1]		282,364	425,475	425,475	425,475	425,475	425,475	425,475	143,111	143,111	143,111	143,111	143,111	143,111	0	0	0	0
Remainder of Region																		
Placer, El Dorado, Yolo, Yuba and Sutter Cos[1]		286,557	471,935	471,935	471,935	471,935	471,935	471,935	185,378	185,378	185,378	185,378	185,378	185,378	0	0	0	0
Total		767,698	1,168,260	1,176,601	1,249,338	1,226,368	1,226,368	1,212,848	400,562	408,903	481,640	458,670	458,670	445,150	72,737	49,767	49,767	36,247

Area		Employment																
			Cumulative (2030) Conditions						Growth (Beyond 2005)						Difference from No Project			
		2005	1993 General Plan	No Project	Proposed General Plan	Without Grant Line East	Focused Growth	Mixed-use	1993 General Plan	No Project	Proposed General Plan	Without Grant Line East	Focused Growth	Mixed-use	Proposed General Plan	Without Grant Line East	Focused Growth	Mixed-use
Unincorporated Sacramento County																		
Specific/Comprehensive Plans		5,046	48,119	48,119	48,119	48,119	48,119	48,119	43,073	43,073	43,073	43,073	43,073	43,073	0	0	0	0
Growth Areas	Grant Line East	59	59	5,730	20,927	59	59	59	0	5671	20868	0	0	0	15,197	-5,671	-5,671	-5,671
	Jackson Corridor	1,824	11,831	11,831	37,702	37,702	37,702	11,831	10,007	10,007	35,878	35,878	35,878	10,007	25,871	25,871	25,871	0
	West of Watt	2,418	3,519	3,519	4,188	4,188	4,188	4,188	1,101	1,101	1,770	1,770	1,770	1,770	669	669	669	669
Other (includes Com Corridors)		196,661	252,433	252,433	256,518	256,518	256,518	256,518	55,772	55,772	59,857	59,857	59,857	59,857	4,085	4,085	4,085	4,085
Subtotal		206,008	315,961	321,632	367,454	346,586	346,586	320,715	109,953	115,624	161,446	140,578	140,578	114,707	45,822	24,954	24,954	-917
Remainder of Sacramento County																		
SOI Areas	Folsom	0	7,913	7,913	7,913	7,913	7,913	7,913	7,913	7,913	7,913	7,913	7,913	7,913	0	0	0	0
	Rancho Cordova	8,760	16,123	16,123	16,123	16,123	16,123	16,123	7,363	7,363	7,363	7,363	7,363	7,363	0	0	0	0
	Panhandle	258	184	184	184	184	184	184	-74	-74	-74	-74	-74	-74	0	0	0	0
	Natomas Vision Area	2,012	5,765	5,765	5,765	5,765	5,765	5,765	3,753	3,753	3,753	3,753	3,753	3,753	0	0	0	0
Cities in Sacramento Co[1]		462,415	617,614	617,614	617,614	617,614	617,614	617,614	155,199	155,199	155,199	155,199	155,199	155,199	0	0	0	0
Remainder of Region																		
Placer, El Dorado, Yolo, Yuba and Sutter Cos[1]		320,988	529,480	529,480	529,480	529,480	529,480	529,480	208,492	208,492	208,492	208,492	208,492	208,492	0	0	0	0
Total		1,000,441	1,493,040	1,498,711	1,544,533	1,523,665	1,523,665	1,497,794	492,599	498,270	544,092	523,224	523,224	497,353	45,822	24,954	24,954	-917

[1] Development levels for areas other than the unincorporated portions of Sacramento County are based on SACOG's development projections for 2035 Metropolitan Transportation Plan prorated to 2030

Source: DKS Associates, 2008

1993 General Plan

In this scenario, cumulative conditions are based upon the land use and transportation network of the 1993 General Plan. The Easton/Glenborough development and its transportation system were included in this scenario. Compared to existing conditions, the 1993 General Plan would add over 47,000 additional dwelling units (an increase of 24 percent over 2005 levels) and almost 110,000 jobs (an increase of 53 percent). The analysis assumes completion of the roadway network as shown in the current (1993) Transportation Plan (Plate TC-1).

No Project Alternative

The No Project Alternative is similar to the 1993 General Plan, but adds the land development and associated transportation systems of the Cordova Hills project. Compared to the 1993 General Plan, the No Project Alternative would include 8,341 additional dwelling units and 5,671 additional jobs.

After this EIR was initiated, the Sacramento County Board of Supervisors approved a request from a private applicant to allow the processing of the Cordova Hills project. Approval of the request constitutes what is known as “reasonably foreseeable” conditions under CEQA. The Cordova Hills project is included in this alternative as part of cumulative conditions.

Proposed General Plan

The proposed General Plan is the Project. Cumulative conditions are based upon the proposed land use and transportation networks of the plan.

Compared to the No Project Alternative, the proposed General Plan would add growth throughout the unincorporated County, as follows:

- Grant Line East New Growth Area – 14,629 dwelling units, 15,197 jobs
- Jackson Highway Corridor New Growth Area – 33,592 dwelling units, 25,815 jobs
- West of Watt New Growth Area – 3,888 dwelling units, 669 jobs
- Commercial Corridors – 19,000 dwelling units, 4,085 jobs

Compared to the No Project Alternative, this is an addition of over 71,000 dwelling units (an increase of 28 percent) and over 45,000 jobs (an increase of 14 percent).

Remove Grant Line East Alternative

This CEQA alternative examines the effects of General Plan buildout without developing the new growth area east of Grant Line Road. It also assumes Cordova Hills does not

develop. Compared to the project, this alternative has 22,970 fewer dwelling units and 20,868 fewer jobs.

Focused Growth Alternative

This CEQA alternative includes General Plan development for the Jackson Highway Corridor within a more compact footprint. The same level of total development would occur as in the Remove Grant Line East Alternative, but all of the development in the Jackson Highway Corridor would be located west of Excelsior Road. No urban development would occur east of Grant Line Road.

Mixed Use Alternative

This CEQA alternative assumes neither large New Growth Area (Jackson Highway Corridor and Grant Line East). All of the assumed Blueprint housing would be accommodated in existing urban or planned urban (e.g. the Florin-Vineyard Gap) areas. Compared to the Proposed General Plan, this alternative would have 34,862 fewer dwelling units and 46,683 fewer jobs.

In the Mixed Use Alternative, select designated six-lane roadways (Stockton Boulevard, Jackson Highway, Sunrise Boulevard, Watt Avenue, Elk Grove – Florin Road, and Florin Road) would be redesignated so that two lanes of the six would be dedicated bus rapid transit routes.

Arterial Downgrade Alternative

This alternative examines the effects of re-designating the following designated, but not built, 4-lane arterials to 2-lane roadways:

- Dry Creek Road
- West 6th Street
- U Street (from Watt Avenue to 24th Street)
- Removal of Dry Creek crossing of U Street (instead, create a cul-de-sac at 24th & U Streets to the east of Dry Creek)
- All planned 4-lane roadways in Rio Linda/Elverta
- Eagles Nest Road (from Jackson to Grant Line Road)

Land use associated with this alternative is identical to the proposed General Plan.

Thoroughfare Downgrade Alternative

This alternative examines the effects of re-designating the designated, but not yet built, 6-lane thoroughfares to 4-lane arterials. The County has on-going efforts to implement the widening of the following thoroughfare segments to six lanes:

- Hazel Avenue from Gold Country Boulevard to Madison Avenue
- Madison Avenue from Fair Oaks Boulevard to Hazel Avenue

These roadway segments were not assumed to be re-designated to 4-lane arterials. Land use associated with this alternative is identical to the proposed General Plan.

TRANSIT SYSTEMS

The Transportation Plan of the project includes LRT, Regional Rail, BRT, and Feeder Line transit services.

LIGHT RAIL TRANSIT

Current light rail transit services in Sacramento County operate along the Blue Line from the Watt/I-80 Station through Downtown Sacramento to the Meadowview Station, and along the Gold Line from Folsom Station to the Downtown Sacramento Valley Station. The project and all alternatives include the following light rail extensions:

- Blue Line (South corridor) extension from the Meadowview Station to Cosumnes River College.
- Blue Line extension along the heavy rail corridor from the vicinity of the Roseville Road Station to Placer County.
- Downtown-Natomas-Airport (DNA) extension from the Sacramento Valley Station to Sacramento International Airport.

REGIONAL RAIL TRANSIT

The project and all alternatives include the existing regional rail passenger routes. These include the Capitol Corridor from Yolo County to Placer County, and the Southern Pacific corridor from the Elvas Wye to San Joaquin County.

BRT TRANSIT

The proposed Project introduces the concept of Bus Rapid Transit (BRT). BRT is included in the Project and all cumulative alternatives other than the No Project Alternative. BRT is defined as a high capacity mode of transit that, through improvements to infrastructure, vehicles, and scheduling, uses buses to provide a service that is of a higher quality than an ordinary bus service. BRT service may include one or more of the following elements:

- High frequency, all day service
- Intelligent Transportation System (ITS) components such as traffic signal priority and queue jumps at intersections

- Specialized vehicles and stations with unique image and identification
- Off bus fare collection
- Elevated platforms

The Transportation Plan identifies two different BRT designations that differ from each other in whether or not BRT operates in an exclusive right-of-way or shares a right-of-way with other modes of travel. Implementation of BRT service will likely occur incrementally as the demand for higher quality of transit service is realized through higher density development with mixed uses.

Bus Rapid Transit (BRT) – Exclusive Lanes is reserved for those corridors with the highest expected transit demand and will operate in vehicle lanes reserved for the exclusive use by BRT. The BRT – Exclusive Lanes designation may include operation within an exclusive right-of-way separate from the roadway system or on the roadway system but within vehicle lanes for the exclusive use by BRT. The exclusive BRT lanes are in addition to the number of lanes specified by the roadway designation of the Transportation Plan. A corridor designated on the Transportation Plan as both a Thoroughfare roadway and a BRT – Exclusive Lanes will have a right-of-way width to accommodate a total of eight lanes of travel, six roadway lanes and two BRT lanes. Likewise, a corridor designated as an Arterial and for exclusive BRT will have a right-of-way width to accommodate a total of six lanes of travel, four roadway lanes and two BRT lanes.

BRT – Mixed Use Lanes is reserved for those corridors with a high expected transit demand but not such that an exclusive right-of-way is necessary. The BRT – Mixed Use Lanes operates in a vehicle lane that is shared by other modes of travel. A corridor designated on the Transportation Plan as both a Thoroughfare roadway and a BRT - Mixed Use Lanes will have a right-of-way width to accommodate a total of six lanes of travel for shared use by all modes. Likewise, a corridor designated as an Arterial and for BRT – Mixed Use Lanes will have a right-of-way width to accommodate a total of four lanes of travel for shared use by all modes.

Feeder Line Transit

Feeder line transit is a high quality surface street bus system feeding the LRT and BRT lines with 15-minute frequency. This service is more local in nature, making more frequent stops than LRT and BRT service.

As the Transportation Plan of the project was developed before the inclusion of the Grant Line East growth area, feeder line service was added to serve this growth area for purposes of the transportation analysis.

FUNDING OF TRANSPORTATION IMPROVEMENTS

The Transportation Plan for the General Plan Update allows widening of over 200 miles of major roadways, construction of new major roadways, and expansion of transit service. Sacramento County has various methods for financing transportation improvements, including the key sources identified below.

The Sacramento County Transportation Development Fee (SCTDF) Program collects funds from new development in unincorporated Sacramento County to finance development's fair share of a comprehensive list of transportation improvements. The recent update of the SCTDF Program identified a comprehensive set of transportation needs for the unincorporated portion of the County through 2032. A capital cost of about $2.3 billion was estimated to meet those transportation needs. Table TC-5, which summarizes the funding sources for improvements in SCTDF Program, shows that funding has been identified for about 83 percent of the capital costs in that program.

Financing Districts have been established by Sacramento County to fund major infrastructure within or near those districts including transportation improvements. Most of this funding comes from development fee programs for the special financing districts. There are currently four financing districts with transportation development fees (Antelope, Vineyard, North Vineyard Station, and Mather) but several other major financing districts are planned and will be implemented in the coming years.

Measure A is a voter-imposed countywide one-half percent sales tax to be levied over a 20-year period (1989-2009). The proceeds of the tax are used to help fund a program of roadway and transit improvements as well as transit operations and roadway maintenance. The voters overwhelmingly approved a new Measure A in 2004 that renews the one-half percent sales tax for 30 more years to help fund an updated set of transportation improvements and transit operations. Measure A will fund a portion of the widening of some key arterial roadways in the unincorporated portion of Sacramento County.

State and Federal Funding for local transportation projects comes from several sources, with the State Transportation Improvement Program (STIP) as a primary source of such funding. The STIP is a multi-year capital improvement program of transportation projects on and off the State Highway System, funded with revenues from the State Highway Account and other funding sources. Local agencies in the Sacramento region must work through SACOG to nominate and get approval of projects for inclusion in the STIP.

Appendix D includes further information on the funding of transportation improvements associated with the General Plan Update. It appears that funding can be readily identified for 80 to 90 percent of the roadway improvements assumed in the General Plan Update EIR analysis.

Table TC-5
Estimated Funding for Transportation Improvements in the Sacramento County Transportation Development Fee (SCTDF) Program

Transportation Element	Estimated Funding (in millions)				
	SCTDF Program	Financing Districts	Measure A	Other Sources	Total
Roadways[1]	$1,115	$162	$160	$352	$1,789
Transit[2]	$267				$267
Walk and Bike[3]	$137			$141	$278
Fee Discounts[4]	-$270			$270	$0
Total	$1,249	$162	$160	$763	$2,334
Percent of Total	*54%*	*7%*	*7%*	*33%*	*100%*
Portion of "Other" Funding from known sources					$128
Portion of "Other" Funding from likely sources					$240
Unfunded portion of Fee Program					$395
Percent Unfunded					17%

[1] Includes roadway capacity projects, ITS and adding shoulders to higher volume rural roads

[2] BRT facilities on Watt Ave, Sunrise Blvd and Florin Rd.

[3] Walk and bike deficiencies on roadways that would operate at LOS F with program, plus regionally significant bike and pedestrian connection projects

[4] Reflects "capped" fees on non-residential uses and reduced fees for affordable housing approved by Board of Supervisors in December 2008.

Source: DKS Associates, 2008

IMPACTS AND ANALYSIS

IMPACT: PROPOSED POLICIES

The existing and proposed Circulation Element policies are within Appendix D. Circulation Element Policy CI-7 in the Appendix was further updated through a memorandum from the Planning Department dated October 7, 2008. The existing policy is CI-22 and reads:

> "Sacramento County shall apply the following Level of Service (LOS) standards for planning roads in the unincorporated area:
>
> 1. Rural collectors: LOS D
>
> 2. Urban area roads: LOS E
>
> and may proceed with additional capacity projects within the scope of the adopted Transportation Plan when the Board of Supervisors has determined that the implementation of all feasible measures which will reduce travel demand in the affected corridor will not provide the target level of service."

The proposed policy CI-7, with additional language added through the memo (in italics), reads:

> Plan and design the roadway system in a manner that meets Level of Service (LOS) D on rural roadways and LOS E on urban roadways, *unless it is infeasible to implement project alternatives or mitigation measures that would achieve LOS D on rural roadways or LOS E on urban roadways.* The urban areas are those areas within the Urban Service Boundary as shown in the Land Use Element of the Sacramento County General Plan. The areas outside the Urban Service Boundary are considered rural.

The memo notes that the existing policy has a statement that the Board of Supervisors may implement "all feasible measures", but the updated policy no longer discussed feasibility. The memo reintroduces this language to the policy.

The proposed new and modified Circulation Element policies are updates intended to reflect current practices, and are either neutral or beneficial with respect to new environmental impacts. Impacts are *less than significant*.

MITIGATION MEASURES:

None recommended.

EXISTING CONDITIONS

ROADWAY SEGMENT ANALYSIS

For the transportation analysis of the General Plan Update, the determination of roadway operating conditions focuses on roadway segment evaluation, which is an appropriate level of detail for the General Plan Update. The analyses are based upon unadjusted daily traffic volumes generally collected in 2006 or 2007, number of traffic lanes between intersections, and roadway characteristics. In this methodology, the major roadway network of the unincorporated County and nearby jurisdictions was

divided into seven “capacity class” categories for level of service determination, as shown in Table TC-6.

The capacity class categories are based upon the nature of traffic flow along the facility, including number of interruptions due to intersection control and “side-friction” due to driveways and local streets. For each capacity class shown in Table TC-6, relationships were developed between daily traffic volumes and roadway level of service. Table TC-7 summarizes the maximum daily traffic volumes for each capacity class/level of service combination. The segment-based level of service represents peak hour conditions, although it is calculated based upon daily traffic volumes and capacity estimates.

Freeways were also evaluated using a segment analysis based on daily traffic volumes and capacities. While the change in the total daily volume due to the proposed General Plan Update and the alternatives is provided on each freeway segment, analysis focuses on the level of service in mixed flow lanes.

Table TC-6 Roadway Capacity Classes

Capacity Class	General Criteria			
	Stops per Mile	Driveways	Speed Range	Lanes
Freeway - Full Access Control	0	None	55 – 65	4 +
Urban Roadways				
Arterial, high access control	1 - 2	None	45 – 55	4 +
Arterial, moderate access control	2 - 4	Limited	35 – 45	2 +
Arterial, low access control	4 +	Frequent	25 – 35	2 +
Rural Roadways				
Two-lane Highway	< 0.5	Limited	45 – 55	2
Two-lane road, paved shoulders	0.5 - 2	Limited	45 – 55	2
Two-lane road, no shoulders	0.5 - 2	Limited	45 – 55	2

[1] Urban roadways lie within the Urban Service Boundary (USB) while rural roadways lie outside.

Source: Sacramento County General Plan Update, Draft Environmental Impact Report, 1992. and DKS Associates, 2008

Table TC-7 Daily Volume Thresholds for Roadway Segments

Facility Type	Number of Lanes	Daily Volume Threshold (Level of Service)				
		A	B	C	D	E
Freeway	4	28,000	43,200	61,600	74,400	80,000
	6	42,000	64,800	92,400	111,600	120.000
	8	56,000	86,400	123,200	148,800	160,000
Urban Roadways[1]						
Arterial, low access control	2	9,000	10,500	12,000	13,500	15,000
	4	18,000	21,000	24,000	27,000	30,000
	6	27,000	31,500	36,000	40,500	45,000
Arterial, moderate access control	2	10,800	12,600	14,400	16,200	18,000
	4	21,600	25,200	28,800	32,400	36,000
	6	32,400	37,800	43,200	48,600	54,000
Arterial, high access control	4	24,000	28,000	32,000	36,000	40,000
	6	36,000	42,000	48,000	54,000	60,000
Rural Roadways[1]						
Two-lane highway	2	2,400	4,800	7,900	13,500	22,900
Two-lane road, paved shoulders	2	2,200	4,300	7,100	12,200	20,000
Two-lane road, no shoulders	2	1,800	3,600	5,900	10,100	17,000

[1] Urban roadways lie within the Urban Service Boundary (USB) while rural roadways lie outside.

Source: *Sacramento County Traffic `Impact Guidelines* and DKS Associates, 2008

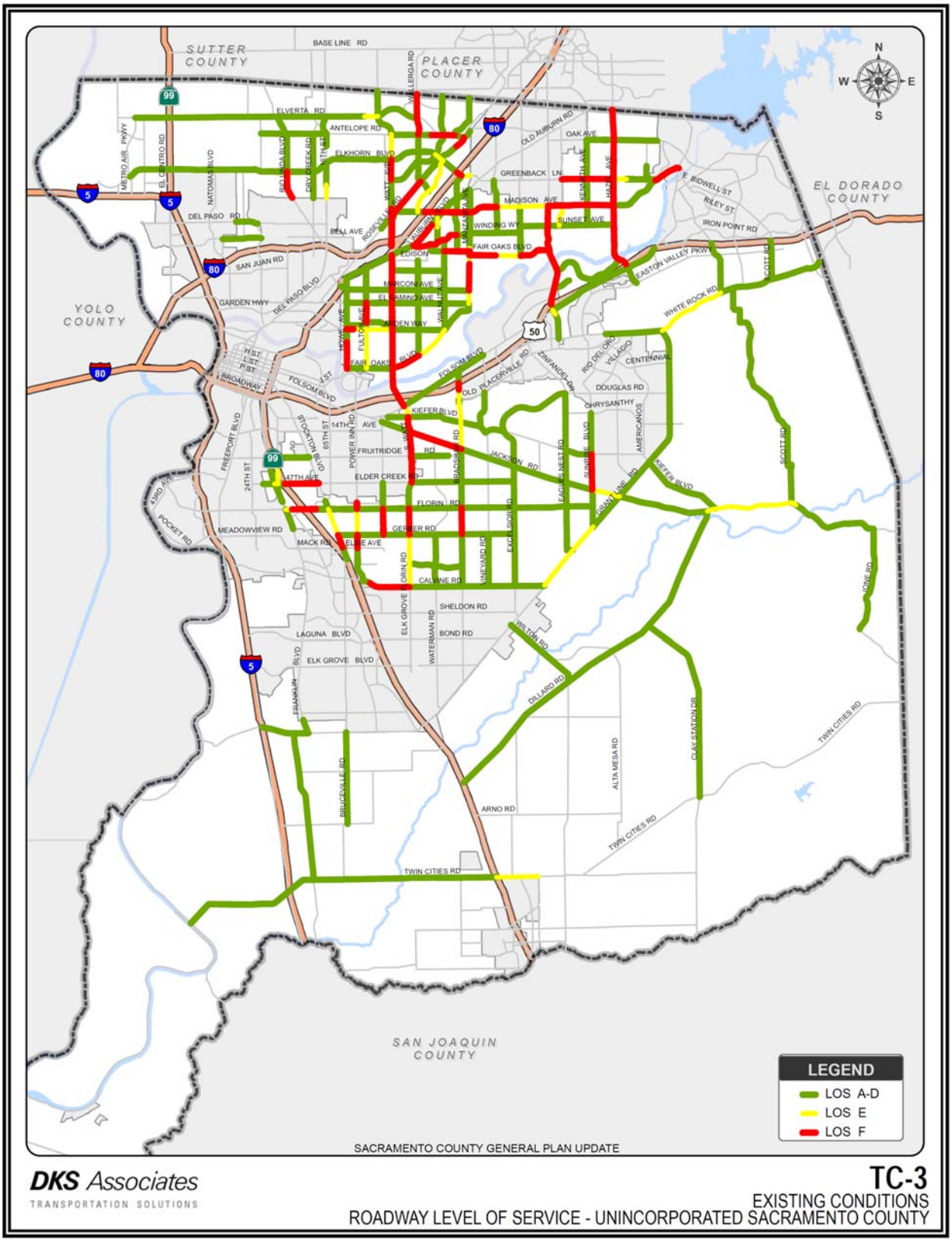
SCREENING PROCESS

Within unincorporated Sacramento County, the roadway segment analysis includes virtually all roadways shown on the General Plan Transportation Plan. Outside the unincorporated County, a screening process was utilized to select major roadways for analysis. Roadways with minor changes in daily traffic volumes resulting from the project (or its alternatives) are unlikely to result in substantial changes in traffic operations, and therefore are unlikely to experience significant impacts. The screening process identified roadways with a change in daily traffic volumes of 1,000 vehicles or more. The roadway segment analysis of other jurisdictions focused on these identified roadways.

UNINCORPORATED SACRAMENTO COUNTY

Table TC-8 in Appendix D summarizes existing roadway operating conditions in unincorporated Sacramento County. Plate TC-3 illustrates roadway level of service. Many roadway segments within the urban area exceed the County's LOS "E" goal. These segments include the American River crossings at Watt Avenue, Sunrise Boulevard, and Hazel Avenue. Other roadways operate at deficient levels of service throughout the urbanized area of the unincorporated county.

Plate TC-3 Existing Roadway LOS – Unincorporated County



Freeway System

Table TC-9 in Appendix D summarizes existing roadway operating conditions on the freeway system. Portions of all of the Sacramento County freeways exhibit LOS "F" conditions, including sections of I-5, US 50, Business 80, I-80, and SR 99.

Other Jurisdictions

Table TC-10 in Appendix D summarizes existing roadway operating conditions in other jurisdictions. As discussed previously, the specific roadways included in the table were selected in a screening process. Similar to the unincorporated county, many roadways operate at deficient levels of service when compared to the applicable standards of their respective jurisdictions.

Overview of Impacts

Systemwide Transportation Performance

Table TC-8 summarizes the systemwide transportation performance of the project and each alternative. The table provides information on the change in land use (housing units and employment) and the resultant changes in vehicle-miles traveled (VMT), vehicle delay, and mode choice. The following overall trends resulted from the analysis:

- The Mixed-Use Alternative would have the smallest increase in housing and employment, and results in the lowest increase in VMT.
- The proposed General Plan would have the greatest increase in VMT, while the Thoroughfare Downgrade Alternative has the greatest increase in VMT at LOS "F" and vehicle hours of delay.
- The proposed General Plan (and the Arterial Downgrade and Thoroughfare Downgrade Alternatives with identical land use) would have the lowest accessibility to transit, as measured by households and employment within one-half mile of LRT/BRT and transit service.
- The Remove Grant Line East Alternative has the greatest residential accessibility to LRT/BRT, while the Mixed-Use Alternative would have the greatest residential accessibility to transit service, as well as the greatest employment accessibility to LRT/BRT and transit service.
- "Linked" transit trips that have an origin and destination in unincorporated Sacramento County would grow faster than housing and employment with the proposed General Plan
- The proposed General Plan would result in a higher growth in total "linked" transit trips than the Remove Grant Line East Alternative and the Focused Growth Alternative

- The added congestion of the Arterial Downgrade Alternative and Thoroughfare Downgrade Alternative would result in the highest amount “linked” transit trips.
- The Mixed-Use Alternative exhibits the largest share of non-automotive travel (walk, bike, transit).
- The Proposed General Plan and the Arterial Downgrade Alternative would have the lowest use of non-automotive travel.

Table TC-8
Systemwide (Unincorporated County) Transportation Performance by Project Alternative

Measure	No Project	Proposed General Plan	Without Grant Line East	Focused Growth	Mixed-Use	Arterial Downgrade	Thoroughfare Downgrade
Percent Change Housing units 2005 to 2030	28.1%	64.8%	53.2%	53.2%	46.4%	64.8%	64.8%
Percent Change Employment 2005 to 2030	56.1%	78.4%	68.2%	68.2%	55.7%	78.4%	78.4%
Percent Change in VMT 2005 to 2030 (Unincorporated Sacramento County roadways)	48.0%	63.2%	56.7%	55.9%	50.4%	63.1%	59.9%
Percent Change in VMT compared to No Project (Unincorporated Sacramento County roadways)		10.2%	5.9%	5.4%	1.6%	10.2%	8.0%
VMT per Household	30.8	30.0	30.1	29.9	30.4	30.0	29.6
Centerline Miles at LOS F	66.8	87.8	78.5	78.0	79.3	91.2	113.5
Centerline Miles at LOS F (percent of total Centerline Miles)	17.2%	22.3%	19.9%	19.8%	20.1%	23.2%	28.8%
VMT at LOS F	3,925	5,237	4,594	4,575	4,491	5,325	5,986
VMT at LOS F (percent of total VMT)	36.5%	42.8%	39.0%	39.1%	41.2%	43.6%	51.4%
Vehicle Hours of Delay[1] (hundreds)	321	412	388	389	395	429	534
Percent Increase in Vehicle Hours of Delay 2005 to 2030	52.1%	95.3%	83.9%	84.4%	87.2%	103.3%	153.1%
Percent of Households within ½ mile of LRT or BRT	27.4%	37.2%	40.0%	38.0%	39.0%	37.2%	37.2%
Percent of Households within ½ mile of transit service	66.4%	69.1%	73.1%	72.5%	73.3%	69.1%	69.1%
Percent of Jobs within ½ mile of LRT or BRT	39.9%	44.4%	47.1%	45.0%	47.3%	44.4%	44.4%
Percent of Jobs within ½ mile of transit service	73.6%	75.1%	79.1%	77.6%	79.7%	75.1%	75.1%
Linked Transit Trips (hundreds) (One trip end in the Unincorporated Sacramento County)	36,176	43,296	42,878	42,755	41,897	43,817	43,567
Percent Increase in Linked Transit Trips 2005 to 2030	64.5%	96.8%	94.9%	94.4%	90.5%	99.2%	98.1%
Percent Mode choice (HBW)							
Auto	91.7%	91.6%	91.4%	91.3%	91.1%	91.5%	91.5%
Transit	3.2%	3.2%	3.3%	3.3%	3.5%	3.2%	3.2%
Walk or Bike	5.1%	5.2%	5.3%	5.4%	5.5%	5.2%	5.3%

1 Added travel time for vehicles on unincorporated Sacramento County roadways above LOS E conditions during the 3 hour AM and PM commute periods

Source: DKS Associates, 2008

TRANSPORTATION PERFORMANCE CHARACTERISTICS OF THE GROWTH STRATEGIES

Table TC-9 summarizes selected transportation performance characteristics of the growth areas (New Growth Areas and Commercial Corridors) included in the project and Alternatives. The first part of the table provides information on the percentage of housing units and employment in each growth area that is located within one-half mile of transit service. Because proximity to transit service is an important determinant in determining mode choice, this statistic provides important insight into the probable success of transit in each growth area. The second part of the table shows the resultant mode choice on commuter (home-based work) trips to the Sacramento Central City and within the unincorporated County.

JACKSON HIGHWAY CORRIDOR

In the Jackson Highway Corridor New Growth Area, the Project and Remove Grant Line East Alternative would have 56 percent of households and 58 percent of employment within one-half mile of transit. In the Focused Growth alternative, this percentage improves to 63 percent for households. The resultant commuter non-auto mode choice is 23 to 24 percent to the Sacramento Central City, and 5 to 7 percent within the unincorporated County. Commute trips to the Sacramento Central City represents about 6 to 7 percent of the commute trips from the Jackson Highway Corridor New Growth Area.

GRANT LINE EAST

The Grant Line East New Growth Area would have the lowest accessibility to transit of any of the new growth areas considered in the General Plan Update. Only 17 percent of households and 8 percent of employment would be located within one-half mile of transit, and no LRT or BRT service is planned to serve the area. The resultant commuter non-auto mode choice is estimated at 12 percent to the Sacramento Central City, and 5 percent within the unincorporated County. Commute trips to the Sacramento Central City would represent about 3 to 4 percent of the commute trips from the Grant Line East New Growth Area.

WEST OF WATT

The West of Watt New Growth Area would have 68 percent of households and 99 percent of employment within one-half mile of transit. The resultant commuter non-auto mode choice is estimated at 29 to 30 percent to the Sacramento Central City, and 12 percent within the unincorporated County. Commute trips to the Sacramento Central City represents about 9 to 10 percent of the commute trips from the West of Watt New Growth Area.

COMMERCIAL CORRIDORS

The Commercial Corridors growth areas would have 88 to 89 percent of households and 94 percent of employment within one-half mile of transit. The resultant commuter non-auto mode choice is estimated at 28 percent to the Sacramento Central City, and 15 percent within the unincorporated County. Commute trips to the Sacramento Central City represents about 10 to 11 percent of the commute trips from the Commercial Corridors.

Table TC-9 Growth Area Transportation Performance Measures

Growth Areas	Project / Alternatives									
	No Project		Proposed General Plan		Without Grant Line East		Focused Growth		Mixed-Use	
	LRT / BRT	Transit Service	LRT / BRT	Transit Service	LRT / BRT	Transit Service	LRT / BRT	Transit Service	LRT / BRT	Transit Service
Percent of Households within ½ mile of Transit										
Unincorporated Sacramento County	27%	66%	37%	69%	40%	73%	40%	73%	39%	73%
Jackson Corridor	2%	37%	44%	70%	44%	70%	44%	70%	32%	64%
Grant Line East	0%	8%	0%	17%						
WOWA	44%	78%	51%	68%	51%	68%	51%	68%	51%	68%
Commercial Corridors	43%	88%	49%	88%	49%	88%	49%	88%	49%	89%
Percent of Jobs within ½ mile of Transit										
Unincorporated Sacramento County	40%	74%	44%	75%	47%	79%	47%	79%	47%	80%
Jackson Corridor	25%	40%	49%	70%	49%	70%	49%	70%	60%	68%
Grant Line East	0%	26%	0%	8%						
WOWA	44%	99%	99%	99%	99%	99%	99%	99%	99%	99%
Commercial Corridors	60%	93%	63%	94%	63%	94%	63%	94%	63%	94%

Growth Areas	Project / Alternatives									
	No Project		Proposed General Plan		Without Grant Line East		Focused Growth		Mixed-Use	
	Auto	Non-Auto	Auto	Non-Auto	Auto	Non-Auto	Auto	Non-Auto	Auto	Non-Auto
Percent Mode Split of Commuter (HBW[2]) Trips from the Growth Areas to the Sacramento Central City										
Unincorporated Sacramento County	76%	24%	75%	25%	75%	25%	75%	25%	75%	25%
Jackson Corridor	82%	18%	75%	25%	75%	25%	75%	25%	81%	19%
Grant Line East	88%	12%	88%	12%						
WOWA	74%	26%	71%	29%	71%	29%	71%	29%	70%	30%
Commercial Corridors	73%	27%	72%	28%	72%	28%	72%	28%	72%	28%
Percent Mode Split of All Commuter (HBW[2]) Trips from the Growth Areas Within Unincorporated Sacramento County										
Unincorporated Sacramento County	89%	11%	90%	10%	89%	11%	89%	11%	89%	11%
Jackson Corridor	98%	2%	93%	7%	93%	7%	92%	8%	98%	2%
Grant Line East	95%	5%	95%	5%						
WOWA	90%	10%	88%	12%	88%	12%	88%	12%	88%	12%
Commercial Corridors	85%	15%	85%	15%	85%	15%	85%	15%	85%	15%

Note:
[1] Non-Auto mode consist of Public Transit Service, Walk, and Bike
[2] Home-Based-Work (HBW) trips
Source: DKS Associates, 2008

TRANSIT SYSTEM PERFORMANCE CHARACTERISTICS

Table TC-10 summarizes selected transit system performance characteristics of the Project and each Alternative. The table provides information on revenue miles, daily passenger boardings, and daily passenger miles for the Regional Transit service area. Regional Transit's system covers much of Sacramento County, including the cities of Sacramento, Rancho Cordova, and Citrus Heights. The project will not change the future transit system or affect ridership in much of Regional Transit's service area.

Compared to existing conditions, the future transit system in Regional Transit's service area with the project would increase daily transit revenue miles by 199 percent, daily passenger boardings by 149 percent, and daily passenger miles by 114 percent.

Compared to the No Project Alternative, the transit system in Regional Transit's service area with the Project would increase daily revenue miles by about 8 percent, daily passenger boardings by about 7 percent, and daily passenger miles by about 10 percent.

IMPACT: CIRCULATION POLICY COMPATIBILITY

The Circulation Element of the General Plan Update includes 37 policies intended to facilitate the implementation of the goals of the General Plan. These policies replace 36 policies that are contained in the 1993 General Plan. All of the policies are included in Appendix D. The proposed policies are a complete re-write of the existing policies, reflecting changes in political, social, environmental, and fiscal conditions since the creation of the earlier plan. However, the general goals of the policies are the same: integration of transportation with land use; continued emphasis on alternative travel modes; and adequate funding for transportation infrastructure, operation, and maintenance.

The new policies will not result in any adverse physical effects as measured by the standards of significance, and impacts are *less than significant.*

MITIGATION MEASURES:

None recommended.

Table TC-10 Transit System Performance Measures

Transit Mode	Project / Alternatives								
	Existing (2005)	Existing 1993 General Plan	No Project	Proposed Project	Without Grant Line East	Focused Growth	Mixed-Use	Arterial Downgrade	Thorough-fare Downgrade
Transit Daily Revenue Miles									
LRT	3,273	6,270	6,270	6,270	6,270	6,270	6,270	6,270	6,270
BRT / Express Bus	2,964	38,443	38,970	41,531	41,531	41,531	40,975	41,531	41,531
Other Bus	20,807	29,698	29,698	33,006	32,784	32,784	32,892	33,006	33,006
Total	27,044	74,411	74,938	80,807	80,586	80,586	80,137	80,807	80,807
Transit Daily Passenger Boardings									
LRT	52,118	89,944	90,163	91,590	91,536	91,487	91,622	91,157	91,120
BRT / Express Bus	13,832	142,691	142,686	161,455	161,758	161,289	158,969	162,779	161,667
Other Bus	67,958	77,952	78,006	80,808	80,533	80,880	81,203	80,756	80,346
Total	133,908	310,587	310,855	333,853	333,827	333,656	331,794	334,692	333,133
Transit Daily Passenger Miles									
LRT	246,542	446,963	448,608	450,785	448,981	448,979	456,571	450,007	449,825
BRT / Express Bus	29,670	292,047	292,222	362,357	363,945	360,952	352,841	368,065	363,537
Other Bus	181,214	152,974	153,204	167,388	164,998	166,710	163,784	167,619	166,085
Total	457,426	891,984	894,034	980,530	977,924	976,641	973,196	985,691	979,447

Source: DKS Associates, 2008.

IMPACT: ROADWAY LEVELS OF SERVICE – PROPOSED PROJECT

Tables TC-14 through TC-17 in Appendix D present the results of the roadway segment level of service analysis of the proposed General Plan for unincorporated Sacramento County, the freeway system, and other jurisdictions, respectively. Information is provided on existing conditions (2008), the Existing 1993 General Plan, the No Project Alternative, and the Proposed Project (General Plan Update). For impact determination purposes, the Proposed Project is compared to the No Project Alternative, because the No Project is the cumulative condition baseline.

Plate TC-4 through Plate TC-6 illustrates Cumulative Roadway Level of Service for the Existing 1993 General Plan, the No Project Alternative, and the Proposed Project (General Plan Update), respectively. Plate TC-7 illustrates roadway segments with significant level of service impacts related to the Proposed Project in unincorporated Sacramento County. Plate TC-8 illustrates change in daily traffic volumes associated with the Proposed Project, when compared to the No Project Alternative.

Plate TC-4 1993 General Plan 2030 Roadway LOS – Unincorporated County

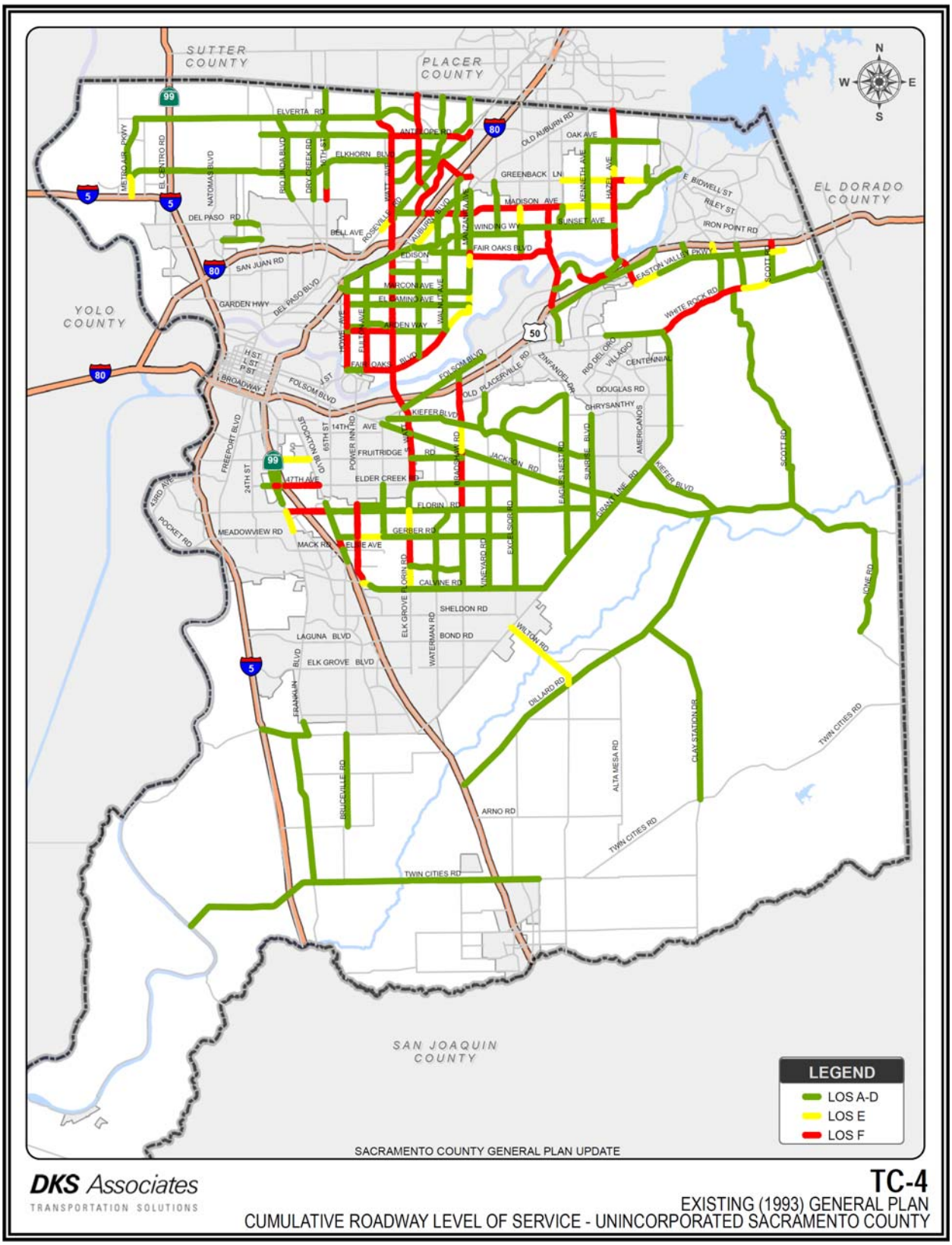


Plate TC-5 No Project 2030 Roadway LOS – Unincorporated County

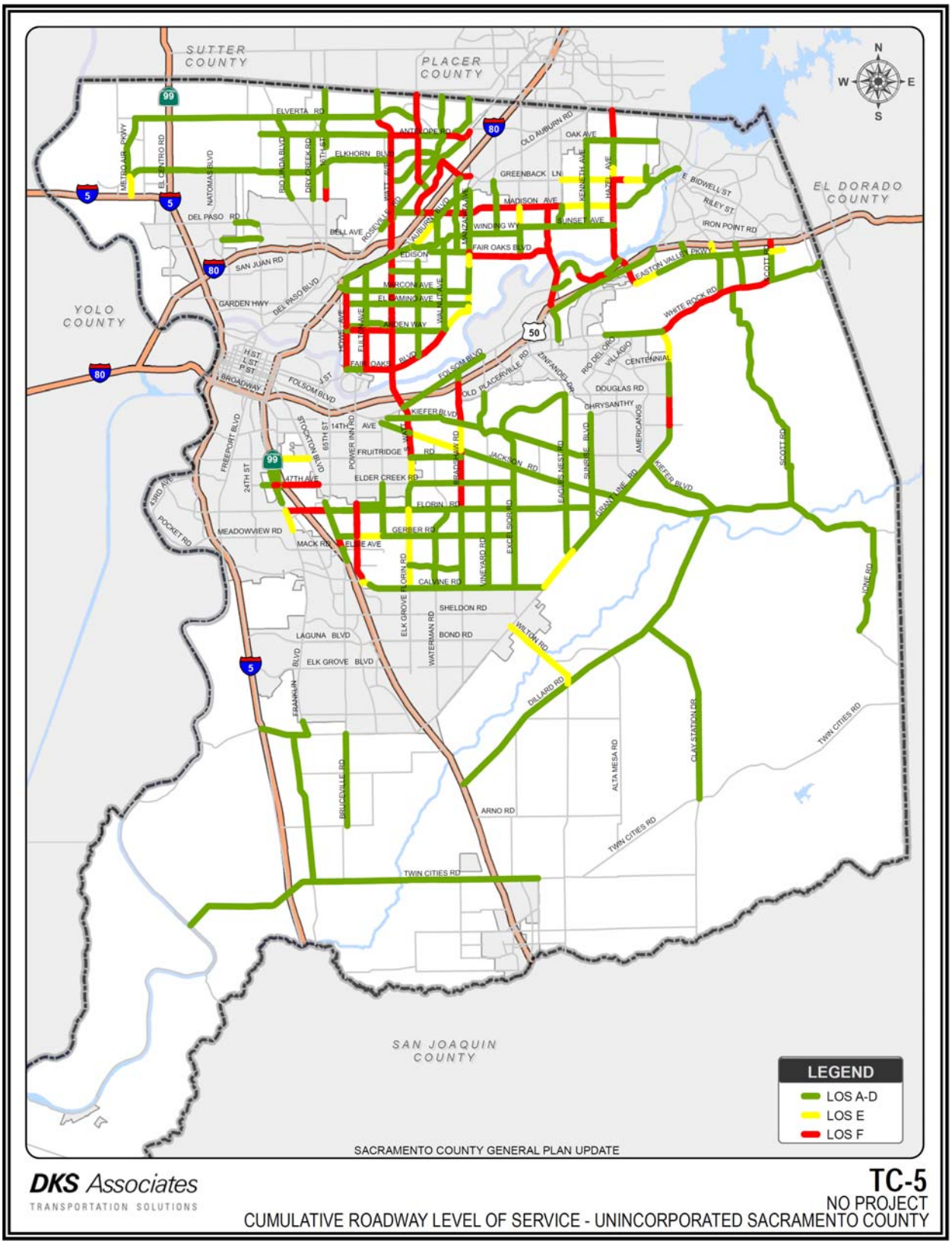


Plate TC-6 Project 2030 Roadway LOS – Unincorporated County

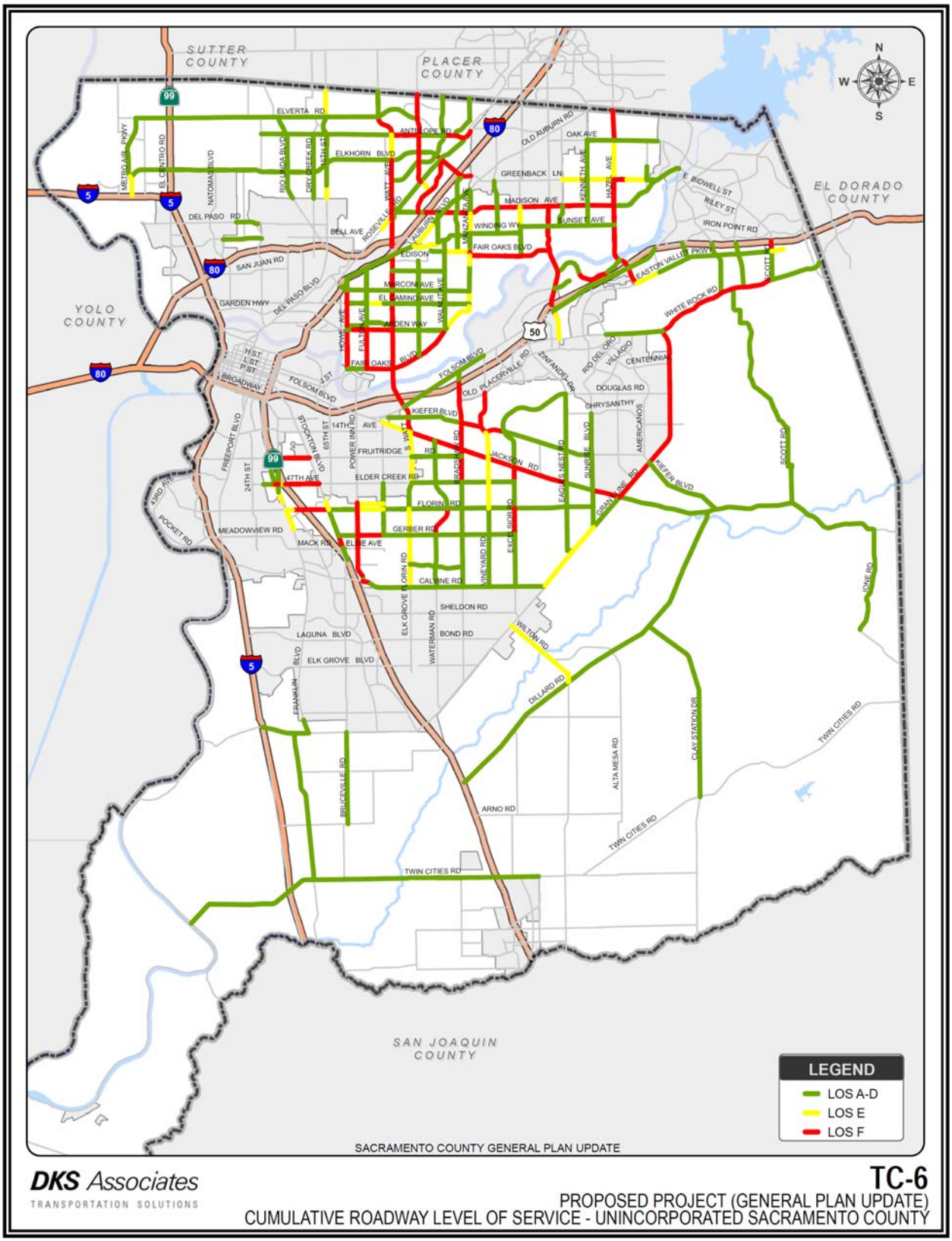


Plate TC-7 Project Significant LOS Impacts – Unincorporated County

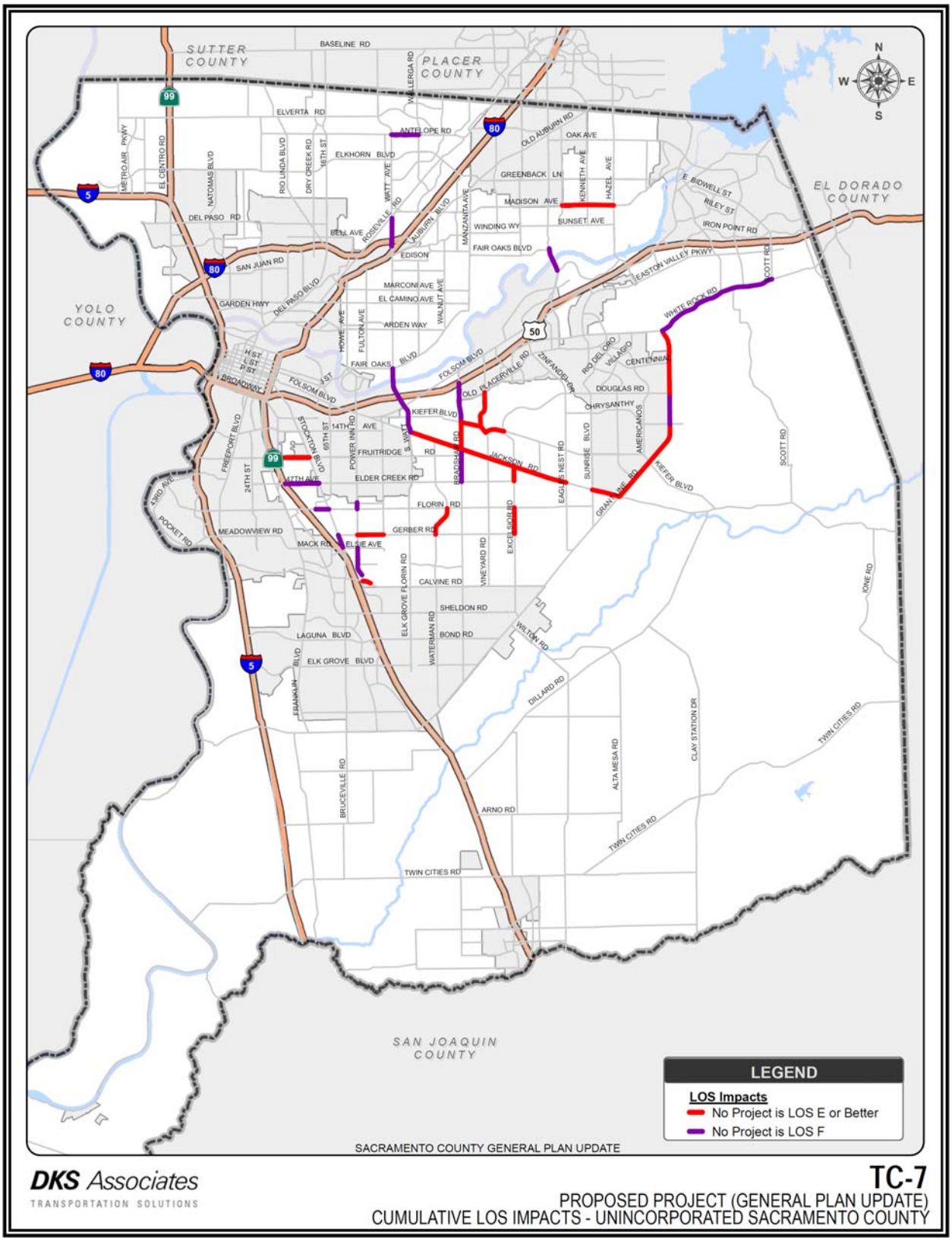
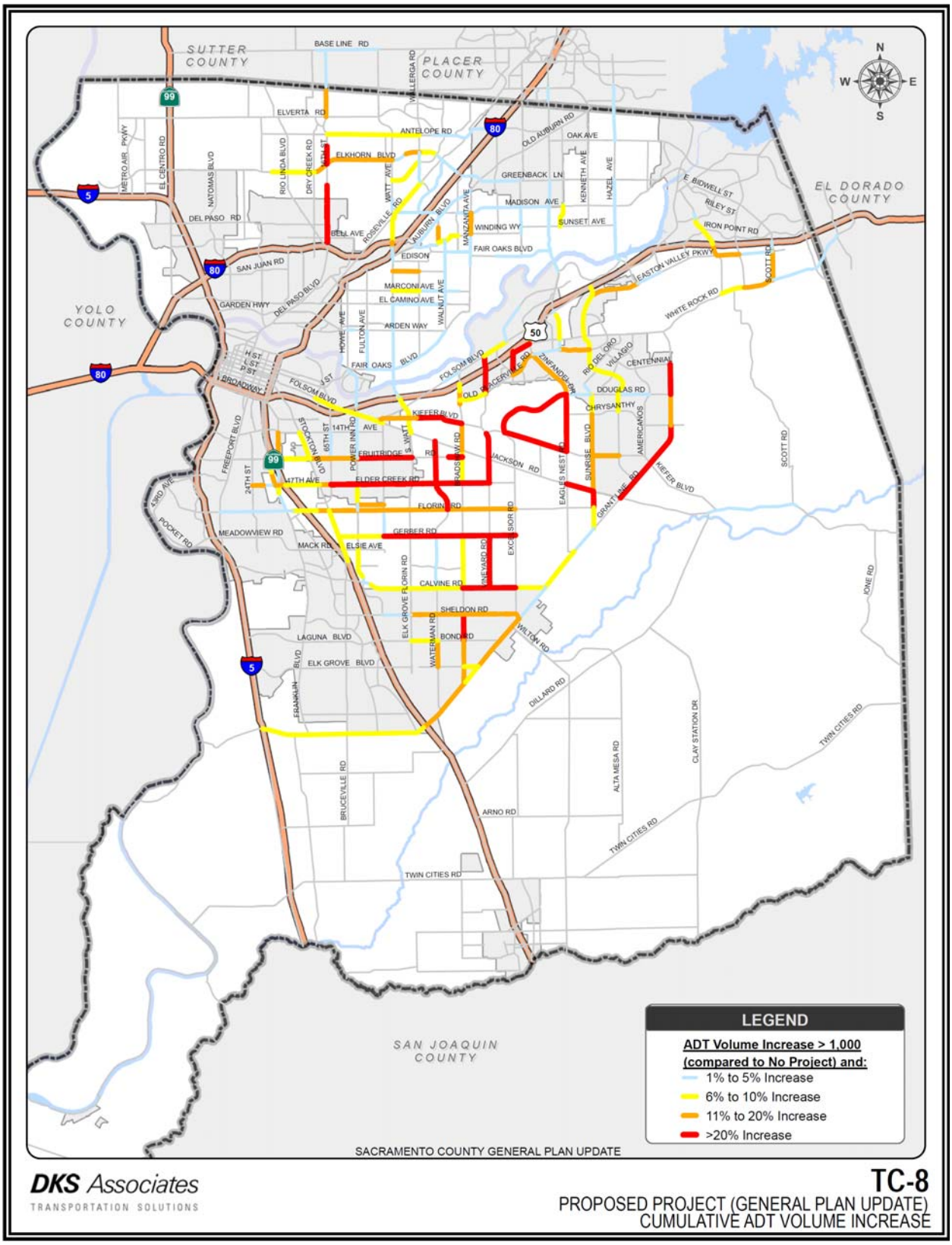


Plate TC-8 Project Increases in Average Daily Traffic – Unincorporated County



UNINCORPORATED SACRAMENTO COUNTY

In the unincorporated County, the volume increases associated with the project result in multiple roadways degrading from acceptable to unacceptable levels of service. In addition, multiple roadways that would already operate at an unacceptable level of service under the No Project Alternative would experience an increase of volume-to-capacity ratio of greater than 0.05. Impacted roadways (shown in Plate TC-7) include:

- Roadway segments within or near the Jackson Highway Corridor New Growth Area including portions of Grant Line Road, Jackson Highway, White Rock Road, Bradshaw Road, Excelsior Road, and Kiefer Boulevard
- Roadway segments within or near the Grant Line East New Growth Area including portions of Grant Line Road and White Rock Road
- Roadway segments near SR 99 that are within or near the southern Commercial Corridors including portions of Fruitridge Road, 47th Avenue, Florin Road, Gerber Road, Calvine Road, Stockton Boulevard, and Power Inn Road
- Roadway segments near I-80 that are within or near some of the northern Commercial Corridors including portions of Watt Avenue, Antelope Road, and Madison Avenue
- Watt Avenue and Sunrise Boulevard near the American River

The General Plan Update calls for urban interchanges at the following locations:

- White Rock Road at Grant Line Road and at Prairie City Road
- Sunrise Boulevard at Fair Oaks Boulevard and at Coloma Road
- Hazel Avenue at Folsom Boulevard, at Madison Avenue and at Greenback Lane
- Watt Avenue at Jackson Highway
- Fair Oaks Boulevard at Howe Avenue, at Madison Avenue and at Greenback Lane
- Calvine Road at Power Inn Road and at Elk Grove-Florin Road
- Madison Avenue at Auburn Boulevard

An analysis of these intersections indicates that nearly all would operate at LOS “F” conditions in 2030 with the Project as at-grade intersections and thus could justify implementation of urban interchanges. Depending on their design, these urban interchanges should operate at acceptable levels of service.

The intersecting roadway segments at these locations would have some of the highest traffic volumes in Sacramento County and implementing these urban interchanges would increase the capacity of those intersecting roadway segments. However, the amount of additional roadway segment capacity provided by the urban interchanges could be limited by the capacities of adjacent signalized intersections along the intersecting roadways, and some of the roadway segments adjacent to urban interchanges would operate at LOS "F" conditions due to those constraints. The design of the future urban interchanges and the access control provided on adjacent roadway segments are not known. For the EIR analysis, the potential capacity of existing or future adjacent intersections was considered when defining the capacity of roadway segments near urban interchanges. Higher capacities than those assumed in the analysis would be possible if access is limited along adjacent roadway segments.

In addition to urban interchanges on Sunrise Boulevard at Fair Oaks Boulevard and at Coloma Road, the General Plan Update calls for Sunrise Boulevard to have continuous right-turn lanes from Highway 50 to Gold Country Boulevard. These combined measures would increase the capacity of this high-volume section of Sunrise Boulevard. However, the increase in roadway segment capacity may be limited by the capacity of key at-grade intersections along Sunrise Boulevard, including those at Highway 50, Zinfandel Drive, and Gold Express Drive.

Freeway System

The proposed Project results in increased volumes on the freeway system. Based upon the significance criteria, segments of I-5, US 50, Business 80, I-80, and SR 99 are impacted.

Other Jurisdictions

In the City of Sacramento, thirteen roadway segments would be impacted, primarily near the American River and the southeastern area of the City. These include major roadways such as 65th Street, Folsom Boulevard, Power Inn Road, Stockton Boulevard, Florin Road, Elder Creek Road, Franklin Boulevard, Fruitridge Road, Howe Avenue, and Watt Avenue.

In the City of Elk Grove, portions of Excelsior Road and Grant Line Road would be impacted.

In the City of Citrus Heights, a portion of Greenback Lane would be impacted.

In the City of Folsom, portions of Prairie City Road and Riley Street would be impacted.

In the City of Rancho Cordova, six roadway segments would be impacted, including portions of Folsom Boulevard, International Drive, Mather Field Road, Rancho Cordova Parkway, White Rock Road, and Zinfandel Drive.

Outside the County of Sacramento, an impact would occur on a portion of Baseline Road in Placer County.

Significance and Mitigation

The proposed Project would increase traffic volumes on many roadways throughout unincorporated Sacramento County and other jurisdictions. The Project would result in changes in roadway operating conditions, discussed previously, that exceed the applicable standards of significance. This is a *significant and unavoidable* impact.

Unincorporated Sacramento County

Automobile traffic that results from the increase in holding capacity of the proposed General Plan (both housing units and employment) results in extensive LOS deficiencies, delay, and congestion throughout the unincorporated County and other jurisdictions, affecting the mobility of existing and future residents, employees, and visitors. Measures to mitigate these impacts should be multi-modal and involve a variety of improvements beyond those in the General Plan Update including widening of selected roadways, traffic operation measures (such as Intelligent Transportation Systems – ITS), additional transit services, bicycle facilities and pedestrian facilities, plus implementation of aggressive smart growth measures in new growth areas. These various measures are discussed below.

Roadway Widenings

As discussed earlier, the determination of roadway operating conditions assumed full implementation of the proposed transportation plan. Roadways in unincorporated Sacramento County do not normally exceed six lanes. Widening of thoroughfares, already designated as six lanes wide, is inconsistent with County policy, and thus not considered a feasible mitigation measure.

The County should redesignate selected four-lane arterial roadways to six lanes to mitigate level of service impacts, especially arterials that have regional significance and are located in the new growth areas contained in the General Plan Update. Such roadways include sections of White Rock Road, Kiefer Boulevard, and Excelsior Road. Most other existing or planned four-lane roadways that would be impacted by the project cannot feasibly be widened due to constraints, such as built-up areas (which would require taking of property) and environmental impacts (which would merely offset one impact by resulting in another).

Transit Facilities

The provision of appropriate transit services throughout the unincorporated County, and particularly in new growth areas, will assist in a mode shift that will help mitigate roadway LOS impacts caused by the increase in holding capacity of the proposed General Plan. The County should aggressively implement transit-oriented development in corridors designated for transit service on the Transportation Plan for the General

Plan Update, especially those designated for BRT service, and work with RT to ensure that transit services can be provided to growth areas once the level and density of development in those areas justify transit service.

INTELLIGENT TRANSPORTATION SYSTEM (ITS)

To maximize the efficiency of its roadway system, especially those roadways that would operate at LOS "F" conditions, Sacramento County will need to use a range of technologies and management techniques. ITS uses real-time information to integrate and mange the components of a conventional transportation system (roadways, transit, traffic signals, ramp meters, etc.). ITS can help reduce the amount and duration of traffic congestion on busy roadways and provide buses with travel timesavings. ITS could include intersection control and surveillance equipment, expansion of the County's Transportation Management Center (TMC), high-bandwidth communication between local equipment and the TMC, traveler information systems, incident management and other measures. The recently adopted Sacramento County Transportation Development Fee (SCTDF) Program outlines a set of ITS improvements targeted on those roadways that would operate at LOS "F" conditions and provides funding for those improvements.

BIKEWAYS AND WALKWAYS

Many existing roadways in unincorporated Sacramento County do not currently have sidewalks or bike lanes. As new development occurs, current County standards call for a comprehensive system of sidewalks and bikeways, as defined by the Sacramento County Pedestrian Master Plan and the 2010 Sacramento City/County Bikeway Master Plan. These facilities will be installed upon the widening of existing roadways and the construction of new roadways. The Sacramento County Transportation Development Fee (SCTDF) Program provides a substantial funding source for walkway/bikeway deficiencies.

The proposed policies CI-21 through CI-28 address planning, funding, and implementing Bikeways and Walkways. No additional mitigation measures are recommended or required.

INTERSECTION IMPROVEMENTS

As discussed previously, widening of most impacted roadways segments would not be allowed under the General Plan, but some congestion levels could be reduced at a number of critical intersections by adding turning lanes to the major roadway and/or the cross street.

Based upon the land use and transportation network of the proposed General Plan Update, it is estimated that approximately 40 major intersections on LOS "F" roadway segments would operate at LOS "F" with the Project. Urban interchanges are allowed under the General Plan Update at eleven of the intersections that would operate at LOS "F" conditions with the project. These urban interchanges should operate at

acceptable levels of service and lessen Project impacts. Of the remaining intersections, the addition of turn lanes would provide a measurable improvement (i.e., decrease the V/C ratio by at least 0.05) at about 10 to 15 congested intersections and thereby lessen LOS impacts. The Sacramento County Transportation Development Fee (SCTDF) Program provides funding for adding turn lanes at intersections on congested roadways that already have the maximum number of through lanes allowed by the General Plan.

SMART GROWTH

The proposed General Plan update contains land use and transportation strategies, goals, and policies related to Smart Growth. Smart growth is an urban planning and transportation theory that concentrates growth to avoid urban sprawl; and advocates compact, transit-oriented, walkable, bicycle-friendly land use, including neighborhood schools, complete streets, and mixed-use development with a range of housing choices. A detailed discussion of Smart Growth is included at the end of the Transportation and Circulation Section. This discussion clearly demonstrates the ability of Smart Growth principles to shift travel to non-automotive modes, and to reduce the average household vehicle-miles of travel.

Smart growth strategies are easier to implement within greenfield development areas, but have proven to be very difficult within already urbanized areas. Problems arise as a result of the intersection of odd lot configurations, space constraints, and infrastructure constraints with certain development standards. In order to promote redevelopment and mixed use infill development within urbanized areas, some key issues would need to be addressed. Two of the primary issues are the provision of parking and existing traffic congestion.

Parking standards are often set up to meet peak demand, such as the Christmas rush, rather than average demand. The result is the construction of large parking lots that are not friendly to pedestrians. An emphasis on overall mobility and access, rather than specifically on vehicle mobility and access, would allow reductions in peak-demand parking standards. This provides more room for improvements to accommodate other travel modes (bicycle lockers and landscaped paths) as well as more room to provide an adequate mix of uses that will attract foot- and bicycle-traffic. (United States Environmental Protection Agency, 2006)

Urbanized areas often have existing traffic congestion issues. In areas with these existing constraints, an infill or redevelopment project may result in additional congestion impacts. Resolution of these impacts may require an infeasible improvement (such as widening a road that is already at the ultimate width) or improvements that are cost-prohibitive. Though these projects have local traffic impacts, there are regional benefits associated with directing growth into existing urban areas instead of greenfield areas – which is one of the primary principles of smart growth. To encourage infill and redevelopment, the County should consider the adoption of an overall mobility standard to supplement the existing vehicle mobility standards. This will enable the County to identify when a project may have local vehicle congestion impacts, but improves the use of non-auto modes. Similarly, the County

should consider allowing mitigation for congestion impacts to focus on improving overall mobility, rather than just vehicle mobility.

The Sacramento County Planning and Community Development Department, in cooperation with the Sacramento County Department of Transportation, has drafted a "Smart Growth Streets" policy document. This draft policy document is intended to address many of the common barriers to smart growth development within existing urbanized areas that are described above. It is recommended that either this document be adopted as mitigation, or that similar measures be adopted.

There will be impacts associated with adopting the policies described above. Reductions in parking standards may result in nuisance impacts, as people may park on nearby residential streets or other parking areas during peak use periods. There will be cases where feasible roadway and intersection improvements are not made, either because it is determined that the impact is acceptable or because mitigation is focused on non-auto mobility instead. The result will be projects that result in unmitigated or only partially mitigated impacts to vehicle levels of service. Adoption of the Smart Growth Streets policy document may itself result in significant and unavoidable impacts associated with unmitigated impacts disclosed throughout this EIR (this includes an analysis of the Commercial Corridors and infill strategies, and the major roadways within these areas – see previous analysis sections). All feasible mitigation to address traffic issues is included in this EIR, and Alternatives intended to reduce regional traffic impacts are also included and discussed in the sections below. This regional approach to mitigation will result in some unmitigated local roadway impacts; all local roadway impacts have been disclosed in this EIR.

Though parking and existing traffic congestion are typically primary barriers to infill and redevelopment, as part of the NOP process the issue of tree mitigation was also raised. The urbanized areas of Sacramento County, particularly areas north of the American River and east of Interstate 80, includes relatively dense areas of urban forest. In order to develop an infill site to the density that is promoted by smart growth, it is usually not possible to retain all (or even any) of these native trees. Mitigation for these trees can be expensive, and acts as a deterrent to development. On the other hand, when the trees are removed and mitigation is provided, residents of the community are negatively affected by the net loss of tree canopy. Even though replacement plantings are provided, there is typically little to no room within the community where the loss of trees will occur to place the mitigation plantings, so they are planted elsewhere. Existing native tree mitigation in these infill areas both deters the type of smart growth development that is ideal, and only compensates for the regional tree loss, not the local loss. Mitigation is recommended in this EIR to provide an alternative measure that would be applicable to Quality Infill Projects, as defined by the Sacramento County Infill Program.

The alternative native tree replacement measure focuses on loss of canopy, rather than on loss of inches of native tree. In many cases this will reduce the amount of tree replacement required, but will still result in replacement of an equivalent amount of tree area. Also, native trees in the urban County are remnants, not functioning as healthy

oak woodlands or other complete habitats. Their primary benefits as habitat and to the community are not necessarily specific to the species, but are benefits broadly associated with large trees. Therefore, the alternative native tree replacement measure allows replacement plantings to consist of non-native species on the Tree Coordinator's list of recommended shade trees. The co-benefit of this change is that the non-native replacement trees are adapted to irrigation and smaller spaces, and unlike native oak trees will survive and thrive within the existing community. The alternative measure states that ideally these replacement plantings shall occur on the site of the development project, and if that is not possible that they should be planted within the community that incurs the tree loss. This measure balances out the need to replace the loss of tree canopy, the need to offset local tree impacts, and the need to further smart growth infill development.

Though this measure will help to reduce overall mobility impacts by increasing the likelihood of successful infill development, and offsets some local tree canopy loss impacts (refer to the Biological Resources chapter), it nonetheless has the potential to result in significant impacts to native trees. The measure will lead to a net loss of native trees within Sacramento County.

The proposed General Plan includes many measures that support smart growth (refer to the section "Smart Growth Policies in the General Plan Update", in this chapter). Some of these policies could be strengthened by replacing "soft" language (e.g. encourage, or support) with "firm" language (such as require). A list of these policies and recommended changes are included as mitigation.

FREEWAY SYSTEM

Determination of cumulative impacts on the freeway system assumed full implementation of all planned and funded improvements as specified in SACOG's 2035 Metropolitan Transportation Plan (MTP). These improvements are funded, in part, by Measure A. Measure A is a voter-imposed countywide one-half percent sales tax that will be used to help fund a program of roadway and transit improvements as well as transit operations and roadway maintenance. The voters overwhelmingly approved a new Measure A in 2004 that renews the one-half percent sales tax through 2039 and introduces a countywide development impact fee program to be adopted and implemented by each participating jurisdiction.

The capital program associated with the Measure A extension is estimated to total $4.5 billion (inflated dollars) through 2025. Measure A includes about $735 million in funding for improvements to State Highways in Sacramento County. These improvements include I-5/US 50 Interchange Improvements, I-5/I-80 Interchange Upgrade, I-5/I-80 HOV Connector, SR 99/US 50 Interchange Improvements, I-5 Bus/Carpool Lanes, I-80 Bus/Carpool Lanes, and US 50 Bus/Carpool Lanes. A significant portion of that funding will come from sales tax revenues and development impact fees collected in the unincorporated areas of Sacramento County, including new development associated with the Project.

Sacramento County can also participate in additional impact fee programs designed to improve operations on the State Highway system, where costs are allocated on a fair-share basis over a broad area most likely covering several jurisdictions.

OTHER JURISDICTIONS

The types of programs discussed previously to address congestion on unincorporated Sacramento County roadways are applicable to other jurisdictions. However, it should be noted that Sacramento County has no means to ensure the implementation of any mitigation measures outside the unincorporated County.

SUMMARY

Mitigation below recommends increasing the designated widths of some roadways, and including new policies in the General Plan. One of these suggested policies (TC-3) may itself result in *significant* impacts to vehicular mobility, and another in *significant* impacts related to a net loss of native trees (TC-4). The policies would support the programs and other strategies described above. Despite the improvements in mobility that could be accomplished through the application of the above programs, it is considered infeasible to fully mitigate the Project's impacts on roadways for an array of reasons. There are physical constraints that make widening some roadways infeasible, such as the presence of biological resources or existing buildings that would need to be removed to accommodate the expansion. There are also financial constraints; many funds exist to build roadways, but the sheer number of areas that may be affected by the Project makes it unreasonable to assume that all of these improvements can be funded in a timely manner. Therefore, traffic impacts are *significant and unavoidable.*

MITIGATION MEASURES:

TC-1. The Sacramento County Transportation Plan diagram shall be amended to designate the following roadways as six lane thoroughfares in the cumulative condition:

A. White Rock Road (between Grant Line Road and Scott Road North)

B. Kiefer Boulevard (between Excelsior Road and Bradshaw Road)

C. Excelsior Road (between Gerber Road and Jackson Road)

TC-2. The following policies shall be added to the General Plan:

A. Replace Policy CI-19 with the following – *The County shall develop right-of-way acquisition guidelines for the implementation of transit services shown on the Transportation Plan.*

B. *Public Facilities Financing Plans shall incorporate capital and operating costs for transit. Infrastructure Master Plans shall include transit planning.*

C. *Plan and implement intelligent transportation system (ITS) strategies within the County's high-demand travel corridors and support efforts to deploy ITS strategies on a regional level.*

D. *The County shall plan and prioritize the implementation of intersection improvements, where feasible, in corridors identified as congested.*

TC-3. The County shall adopt a smart-growth program that will facilitate the expansion of walkways, bikeways, and transit services and decreases in vehicle miles traveled. This requirement may be met by adopting the proposed Smart Growth Streets program described in this chapter, or by including a policy within the General Plan requiring adoption of a smart-growth program consisting of the following minimum elements:

A. A policy focusing on overall mobility to supplement the existing vehicular mobility standards.

B. A policy or set of policies that allow enhancements to non-auto travel modes as mitigation pursuant to the policy described in TC-3.A.

C. Replacement or alteration of the minimum parking standards with standards that reflect and accommodate average use for the region, or other method that results in overall reductions in per-project parking requirements.

TC-4. The following policy shall be added to the General Plan:

A. Infill projects that are consistent with the County's definition of a Quality Infill Project may participate in the County's Infill/Urban Tree Mitigation Program. The Tree Mitigation Infill Policy is as follows: Impacts to native trees designated for removal shall be calculated and mitigated based on canopy area coverage. Canopy replacement may utilize any tree species that is listed on the Tree Coordinator's list of recommended trees for parking lot shade. For measurement purposes, replacement tree canopy shall be calculated in the same manner as the parking lot shade requirements of Section 330-94 of the Sacramento County Zoning Code, using the ultimate canopy growth as specified on the Tree Coordinator's Tree Species Specifications. Tree canopy replacement shall, ideally, occur on site. In the event the physical constraints of the site preclude the additional replacement mitigation on-site, the following options may be utilized in coordination with the County Tree Coordinator and Mitigation Program:

a. Planting in adjacent landscape/ corridor areas;

b. Planting within local parks;

c. Other plantings that may otherwise be arranged in the neighborhood or community;

d. Participation in County programs including but not limited to payment of in lieu fees for use in tree care, preservation and maintenance programs, and other similar programs to the satisfaction of the County Tree Coordinator.

The mitigation measure below is new to the Final EIR, but is not shown in bold, underlined text so that the convention may be used to show the proposed changes to policy language.

TC-5. The following policies of the General Plan shall be modified:

A. Modify CI-1 as follows: ~~Promote~~ **Provide** complete streets with access to a diversity of safe and efficient travel modes for **all urban and suburban** ~~all new and existing~~ land uses within Sacramento County **except within certain established neighborhoods where particular amenities (such as sidewalks) are not desired**.

B. Modify CI-3 as follows: Travel modes ~~should~~ **shall** be interconnected to form an integrated, coordinated and balanced multi-modal transportation system, planned and developed consistent with the land uses to be served.

C. Modify CI-21 as follows: ~~Promote the development of~~ **Develop** a comprehensive, safe, convenient and accessible bicycle and pedestrian system that serves and connects the County's employment, commercial, recreational, educational, social services, housing and other transportation modes.

D. Modify LU-28 as follows: When planning for new development in ~~either~~ new ~~or existing~~ communities, the ~~following~~ features **below** shall be ~~considered~~ **incorporated** for their public health benefits and ability to encourage more active lifestyles**, unless environmental constraints make this infeasible. In existing communities, the features below shall be considered, as appropriate and feasible.**

- **Where appropriate,** compact, mixed use development and a balance of land uses so that everyday needs are within walking distance, including schools, parks, jobs, retail and grocery stores.

- Streets, paths and public transportation that connect multiple destinations and provide for alternatives to the automobile.

- Wide sidewalks, shorter blocks, well-marked crosswalks, on-street parking, shaded streets and traffic-calming measures to encourage pedestrian activity.

- Walkable commercial areas with **features that may include** doors and windows fronting on the street, street furniture, pedestrian-scale lighting, and served by transit when feasible.

E. Modify LU-39 as follows: ~~Promote~~ **Provide** and support development of pedestrian and bicycle connections between transit stations and nearby residential, commercial, employment or civic uses by eliminating physical barriers and providing linking facilities, such as pedestrian overcrossings, trails, wide sidewalks and safe street crossings.

F. Modify LU-72 as follows: Give the highest priority for public funding to projects that facilitate infill, reuse, redevelopment and rehabilitation, ~~and~~ mixed use development, **and that will result in per-person vehicle miles traveled lower than the County average,** and the lowest priority for projects that do not comply with public facilities Master Plan phasing sequences.

IMPACT: BICYCLE AND PEDESTRIAN FACILITIES – PROPOSED PROJECT

The proposed General Plan Update incorporates the Bikeway Master Plan and Pedestrian Master Plan, and includes policies for the planning, funding, and implementation of bicycle and pedestrian facilities to address mobility needs. Many of these policies were included in the earlier discussion of smart growth. Development in new growth areas consistent with the smart growth principles will ensure bicycle and pedestrian mobility within these areas, and the County's plans to improve bicycle and pedestrian facilities on existing and planned roadways will provide important connectivity.

As discussed previously, the automobile traffic that results from the increase in holding capacity of the proposed General Plan (both housing units and employment) results in extensive LOS deficiencies, delay, and congestion throughout the unincorporated County and other jurisdictions, affecting the mobility of existing and future residents, employees, and visitors. The provision of appropriate bicycle and pedestrian facilities integrated throughout the unincorporated County, and particularly in new growth areas, will assist in a mode shift that will help mitigate such impacts.

When evaluated in accordance with the standards of significance, the impact of the Project is *less than significant.*

MITIGATION MEASURES:

None recommended.

IMPACT: SAFETY – PROPOSED PROJECT

The proposed General Plan Update incorporates policies related to transportation facility planning, design, and implementation in accordance with accepted design standards and guidelines. When evaluated in accordance with the standards of significance, the impact of the Project is *less than significant.*

MITIGATION MEASURES:

None recommended.

IMPACT: TRANSIT – PROPOSED PROJECT

The increases in households and employment associated with the General Plan Update will increase the demand for transit services. To accommodate new development, RT will need to increase frequency on current transit (bus and light rail) routes, extend transit routes, and add new transit routes. In addition, increases in traffic congestion levels on existing bus routes due to new development will require additional buses just to maintain existing headways. Thus, new development will require additional buses and light rail vehicles. The increased transit fleet will require additional maintenance facilities and equipment. Additional transit stations, stops, and park-and-ride lots will be needed on existing and future transit routes.

Although it is the intent of the General Plan Update to provide new transit services to new growth areas once the level of development and densities reach levels that justify services, it may not be possible to provide adequate transit services due to future funding uncertainties. The transit system associated with the MTP assumes future funding sources that are not guaranteed. This may result in less transit service than appropriate to support the General Plan Update, and/or delays in the implementation of appropriate transit service.

As discussed previously, the automobile traffic that results from the increase in holding capacity of the proposed General Plan (both housing units and employment) results in extensive LOS deficiencies, delay, and congestion throughout the unincorporated County and other jurisdictions, affecting the mobility of existing and future residents, employees, and visitors. The provision of appropriate transit services throughout the unincorporated County, and particularly in new growth areas, will assist in a mode shift that will help mitigate such impacts.

SIGNIFICANCE AND MITIGATION

Because new and expanded transit services are financially dependent upon the magnitude of transit ridership, it is imperative that adequate densities, land uses, and development patterns supportive of transit are established. These efforts apply to all new growth areas and development, and especially to the Light Rail Transit Oriented Development (TOD) Opportunity Sites (Figure 8, Land Use Element) and Transit Oriented Development Districts (Figure 9, Land Use Element). In order to accomplish this, the County must adopt development guidelines to ensure that new development and redevelopment occurs with an orientation to travel patterns that are conducive to transit service. This would include concentration of development in centers and along linear corridors such that trip origins and destinations are concentrated near transit services.

The County must ensure the phased implementation of transit services to all growth areas as development occurs. The implementation of transit services cannot wait until "buildout" of the growth areas. New residents, employees, and patrons establish their travel patterns as development occurs. Without early implementation of transit services, a prime opportunity to shift travel from the automobile is lost. The County must work with Regional Transit to establish and implement transit service levels for new growth areas based upon the magnitude of development. Development in each growth area should be conditioned upon the provision of phased levels of transit service.

Despite the intent of the General Plan Update to provide an adequate level of transit services in accordance with smart growth principles, it may not be possible to provide adequate transit services in a timely fashion due to future funding uncertainties. The impact of the Project remains *significant and unavoidable.*

MITIGATION MEASURES:

TC-6. The following policy language shall be added to the General Plan:

A. The County shall work with Regional Transit to establish and implement development guidelines to maximize the ability of new development to support planned transit services.

B. The County shall adopt development guidelines to ensure that new development and redevelopment occurs with an orientation to travel patterns that are conducive to transit service. This will include concentration of development in centers and along linear corridors such that trip origins and destinations are concentrated near transit services.

C. The County shall collaborate with transit providers to promote the phased implementation of transit services to all growth areas as development occurs.

D. The County shall promote transit-supportive programs in new development, including employer-based trip-reduction programs (employer incentives to use transit or non-motorized modes), "guaranteed ride home" for commute trips, and car-share or bike-share programs.

E. The County shall implement paid parking in the densest commercial areas, whenever feasible.

F. In BRT and Feeder Line transit corridors that are anticipated to be congested in the future, the County shall implement all feasible measures to minimize the effects of congestion on transit travel times.

NO PROJECT

The impacts of the No Project Alternative are integrated with the Project discussion in the sections above, because the No Project serves as the cumulative baseline against which the Project is compared. What follows is a separate summarization of the No Project effects described in the preceding sections.

IMPACT: ROADWAY LEVEL OF SERVICE

UNINCORPORATED SACRAMENTO COUNTY

Tables TC-14 through TC-17 in Appendix D present the results of the roadway segment level of service analysis of the proposed General Plan for unincorporated Sacramento County, the freeway system, and other jurisdictions, respectively. Plate TC-5 illustrates Cumulative Roadway Level of Service for the No Project Alternative. Though there will be a significant number of roadways operating at unacceptable levels of service, there will be fewer affected roadways under the No Project Alternative than under the Project.

FREEWAY SYSTEM

The No Project Alternative includes freeway reaches that will operate at unacceptable levels of service.

OTHER JURISDICTIONS

The No Project Alternative includes roadways in other jurisdictions that will operate at unacceptable levels of service, though there will be fewer than under Project conditions.

SUMMARY OF ROADWAY LEVEL OF SERVICE IMPACTS

The No Project cumulative condition will increase traffic volumes on many roadways throughout unincorporated Sacramento County and other jurisdictions compared to the existing conditions. The No Project Alternative will result in changes in roadway operating conditions that exceed the applicable standards of significance. Mitigation for these impacts is not possible, as this is the cumulative baseline condition. This Alternative would be realized as a result of the Project being denied, and the denial of a project does not allow for the imposition of mitigation. This is a *significant and unavoidable* impact.

IMPACT: BICYCLE AND PEDESTRIAN FACILITIES

The No Project Alternative incorporates the Bikeway Master Plan and Pedestrian Master Plan, and includes existing General Plan policies for the planning, funding, and implementation of bicycle and pedestrian facilities to address mobility needs. As outlined in the discussion of Project impacts, the aggressive implementation of an

effective bicycle and pedestrian infrastructure is also necessary to reduce projects effects on roadway level of service, congestion, delay, mobility, and air quality.

When evaluated in accordance with the standards of significance, the impact of the Alternative is *less than significant.*

IMPACT: SAFETY

The No Project Alternative includes existing policies related to transportation facility planning, design, and implementation in accordance with accepted design standards and guidelines. When evaluated in accordance with the standards of significance, the impact of the Alternative is *less than significant.*

IMPACT: TRANSIT

The increases in households and employment associated with the No Project Alternative will increase the demand for transit services. Although it is the intent of the Alternative to provide such services, it may not be possible to provide adequate transit services due to future funding uncertainties. The transit system associated with the MTP assumes future funding sources that are not guaranteed. This may result in less transit service than appropriate to support the Alternative, and/or delays in the implementation of appropriate transit service. The location of new growth also affects transit availability, as areas farther removed from the existing urban core will require higher levels of capital and operating funding. This Alternative would not involve any growth within new planning areas, **other than those included as reasonably foreseeable in the No Project scenario**.

The automobile traffic that results from the increase in housing units and employment (though not in holding capacity) results in extensive LOS deficiencies, delay, and congestion throughout the unincorporated County and other jurisdictions, affecting the mobility of existing and future residents, employees, and visitors. The provision of appropriate transit services throughout the unincorporated County will assist in a mode shift that will help mitigate such impacts. Though the transit mitigation measures associated with the Project are also appropriate for this Alternative, as has been stated, mitigation cannot be applied to the No Project condition. It may not be possible to provide adequate transit services in a timely fashion due to future funding uncertainties. The impact of the Alternative is *significant and unavoidable.*

REMOVE GRANT LINE EAST ALTERNATIVE

IMPACT: ROADWAY LEVEL OF SERVICE

UNINCORPORATED SACRAMENTO COUNTY

Table TC-18 in Appendix D shows the results of the roadway segment analysis for the Project and the Alternatives, including the Remove Grant Line East Alternative. Plate TC-9 is a visual illustration of the Cumulative Roadway Levels of Service that will result from the Remove Grant Line East Alternative, Plate TC-12 shows which roadway segments incur significant impacts, and Plate TC-16 illustrates the change in daily traffic volumes. The Project and the Remove Grant Line East Alternative result in significant level of service impacts on many of the same facilities throughout unincorporated Sacramento County. Compared to the proposed General Plan Update, this alternative has fewer impacts on several roadways, including Florin Road, Grant Line Road, Stockton Boulevard, and White Rock Road.

FREEWAY SYSTEM

Table TC-20 in Appendix D shows the results of the freeway analysis for the Project and the Alternatives. The Project and the Remove Grant Line East Alternative result in significant freeway level of service impacts on I-5, US 50, Business 80, I-80, and SR 99.

OTHER JURISDICTIONS

Table TC-21 in Appendix D shows the results of the roadway analysis in other jurisdictions for the Project and the Alternatives. The Project and the Remove Grant Line East Alternative result in significant level of service impacts on many of the same facilities throughout other jurisdictions as the proposed General Plan Update. This alternative has fewer impacts than the proposed General Plan Update does on several roadways, including Prairie City Road, Douglas Road, International Boulevard, Mather Field Road, and Zinfandel Drive. This Alternative has greater impacts on Sunrise Boulevard.

SUMMARY OF ROADWAY LEVEL OF SERVICE IMPACTS

The Remove Grant Line East Alternative would increase traffic volumes on many roadways throughout unincorporated Sacramento County and other jurisdictions. The Alternative would result in changes in roadway operating conditions that exceed the applicable standards of significance. Despite the improvements in mobility that could be accomplished through the application of mitigation, it is considered infeasible to fully mitigate the impacts of the Alternative on roadways. This is a *significant and unavoidable* impact.

MITIGATION MEASURES:

The same mitigation measures that apply to the Project also apply to the Remove Grant Line East Alternative. See TC-1 through TC-4.

IMPACT: BICYCLE AND PEDESTRIAN FACILITIES

The Remove Grant Line East Alternative incorporates the Bikeway Master Plan and Pedestrian Master Plan, and includes General Plan policies for the planning, funding, and implementation of bicycle and pedestrian facilities to address mobility needs. As outlined in the discussion of Project impacts, the aggressive implementation of an effective bicycle and pedestrian infrastructure is also necessary to reduce projects effects on roadway level of service, congestion, delay, mobility, and air quality.

When evaluated in accordance with the standards of significance, the impact of the Alternative is *less than significant.*

MITIGATION MEASURES:

None recommended.

IMPACT: SAFETY

The Remove Grant Line East Alternative incorporates policies related to transportation facility planning, design, and implementation in accordance with accepted design standards and guidelines. When evaluated in accordance with the standards of significance, the impact of the Alternative is *less than significant.*

MITIGATION MEASURES:

None recommended.

IMPACT: TRANSIT

The increases in households and employment associated with the Remove Grant Line East Alternative will increase the demand for transit services. Although it is the intent of the Alternative to provide such services, it may not be possible to provide adequate transit services due to future funding uncertainties. The transit system associated with the MTP assumes future funding sources that are not guaranteed. This may result in less transit service than appropriate to support the Alternative, and/or delays in the implementation of appropriate transit service. The location of new growth also affects transit availability, as areas farther removed from the existing urban core will require higher levels of capital and operating funding. This Alternative removes the growth area that is farthest from the existing urban core.

As discussed previously, the automobile traffic that results from the increase in holding capacity of the proposed Alternative (both housing units and employment) results in

extensive LOS deficiencies, delay, and congestion throughout the unincorporated County and other jurisdictions, affecting the mobility of existing and future residents, employees, and visitors. The provision of appropriate transit services throughout the unincorporated County, and particularly in new growth areas, will assist in a mode shift that will help mitigate such impacts. The transit mitigation measures associated with the Project are also appropriate for this Alternative. However, it may not be possible to provide adequate transit services in a timely fashion due to future funding uncertainties. The impact of the Alternative is *significant and unavoidable.*

MITIGATION MEASURES:

See **TC-6** ~~TC-5~~.

FOCUSED GROWTH ALTERNATIVE

IMPACT: ROADWAY LEVEL OF SERVICE

UNINCORPORATED SACRAMENTO COUNTY

Table TC-18 in Appendix D shows the results of the roadway segment analysis for the Project and the Alternatives, including the Focused Growth Alternative. Plate TC-10 is a visual illustration of the Cumulative Roadway Levels of Service that will result from the Focused Growth Alternative, Plate TC-13 shows which roadway segments incur significant impacts, and Plate TC-17 illustrates the change in daily traffic volumes. The project and the Focused Growth Alternative result in significant impacts on many of the same facilities throughout unincorporated Sacramento County. Compared to the proposed General Plan Update, this Alternative has fewer level of service impacts on several roadways, including Florin Road, Grant Line Road, Hazel Avenue, and White Rock Road. This Alternative has greater impacts on several roadways, including Bradshaw Road, Elk Grove – Florin Road, and Waterman Road.

FREEWAY SYSTEM

Table TC-20 in Appendix D shows the results of the freeway analysis for the Project and the Alternatives. The Project and Focused Growth Alternative result in significant freeway level of service impacts on I-5, US 50, Business 80, I-80, and SR 99.

OTHER JURISDICTIONS

Table TC-21 in Appendix D shows the results of the roadway analysis in other jurisdictions for the Project and the Alternatives. The Project and the Focused Growth Alternative result in significant level of service impacts on many of the same facilities throughout other jurisdictions as the proposed General Plan Update. This Alternative

has fewer impacts than the proposed General Plan Update does on several roadways, including Excelsior Road, Grant Line Road, Prairie City Road, Douglas Road, Mather Field Road, and Zinfandel Drive. This Alternative has greater impacts on a segment of International Boulevard.

Summary of Roadway Level of Service Impacts

The Focused Growth Alternative would increase traffic volumes on many roadways throughout unincorporated Sacramento County and other jurisdictions. The Alternative would result in changes in roadway operating conditions that exceed the applicable standards of significance. Despite the improvements in mobility that could be accomplished through the application of mitigation, it is considered infeasible to fully mitigate the impacts of the Alternative on roadways. This is a *significant and unavoidable* impact.

Mitigation Measures:

The same mitigation measures that apply to the Project also apply to the Focused Growth Alternative. See TC-1 through TC-4.

Impact: Bicycle and Pedestrian Facilities

The Focused Growth Alternative incorporates the Bikeway Master Plan and Pedestrian Master Plan, and includes General Plan policies for the planning, funding, and implementation of bicycle and pedestrian facilities to address mobility needs. As outlined in the discussion of Project impacts, the aggressive implementation of an effective bicycle and pedestrian infrastructure is also necessary to reduce projects effects on roadway level of service, congestion, delay, mobility, and air quality.

When evaluated in accordance with the standards of significance, the impact of the Focused Growth Alternative is *less than significant.*

Mitigation Measures:

None recommended.

Impact: Safety

The Focused Growth Alternative incorporates policies related to transportation facility planning, design, and implementation in accordance with accepted design standards and guidelines. When evaluated in accordance with the standards of significance, the impact of the Alternative is *less than significant.*

Mitigation Measures:

None recommended.

IMPACT: TRANSIT

The same discussion provided for the Remove Grant Line East Alternative is also applicable to the Focused Growth Alternative. The transit mitigation measures associated with the Project are appropriate for this Alternative. However, it may not be possible to provide adequate transit services in a timely fashion due to future funding uncertainties. The impact of the Alternative is *significant and unavoidable.*

MITIGATION MEASURES:

See **TC-6** ~~TC-5~~.

MIXED USE ALTERNATIVE

IMPACT: ROADWAY LEVEL OF SERVICE

UNINCORPORATED SACRAMENTO COUNTY

Table TC-18 in Appendix D shows the results of the roadway segment analysis for the Project and the Alternatives, including the Mixed Use Alternative. Plate TC-11 is a visual illustration of the Cumulative Roadway Levels of Service that will result from the Mixed Use Alternative, Plate TC-14 shows which roadway segments incur significant impacts, Plate TC-15 shows the change in the number of lanes, and Plate TC-18 illustrates the change in daily traffic volumes. The Project and the Mixed-Use Alternative result in significant level of service impacts on many of the same facilities throughout unincorporated Sacramento County. Compared to the proposed General Plan Update, this Alternative has fewer impacts on several roadways, including Bradshaw Road, Excelsior Road, Fruitridge Road, Grant Line Road, Jackson Road, Kiefer Boulevard, Waterman Road, and White Rock Road. This Alternative has greater impacts on several roadways, including Antelope Road, Easton Valley Parkway, Elk Grove – Florin Road, Elkhorn Boulevard, Fair Oaks Boulevard, Greenback Lane, Hazel Avenue, Hillsdale Boulevard, Madison Avenue, Stockton Boulevard, and Walerga Road.

FREEWAY SYSTEM

Table TC-20 in Appendix D shows the results of the freeway analysis for the Project and the Alternatives. The Project and Mixed Use Alternative result in significant freeway level of service impacts on I-5, US 50, Business 80, I-80, and SR 99.

OTHER JURISDICTIONS

Table TC-21 in Appendix D shows the results of the roadway analysis in other jurisdictions for the Project and the Alternatives. The Project and the Mixed-Use

Alternative result in significant level of service impacts on many of the same facilities throughout other jurisdictions as the proposed General Plan Update. This Alternative has fewer impacts than the proposed General Plan Update on several roadways, Elder Creek Road, Florin Road, Folsom Boulevard, Stockton Boulevard, Excelsior Road, Grant Line Road, Prairie City Road, Douglas Road, International Boulevard, Mather Field Road, and Zinfandel Drive. This Alternative has greater impacts on several roadways, including Florin Perkins Road and Riley Street.

SUMMARY OF ROADWAY LEVEL OF SERVICE IMPACTS

The Mixed Use Alternative would increase traffic volumes on many roadways throughout unincorporated Sacramento County and other jurisdictions. The Alternative would result in changes in roadway operating conditions that exceed the applicable standards of significance. Despite the improvements in mobility that could be accomplished through the application of mitigation, it is considered infeasible to fully mitigate the impacts of the Alternative on roadways. With it's focus on increasing infill and redevelopment, this Alternative has the greatest potential to reduce roadway impacts on a regional basis but increase roadway impacts in localized areas. The mitigation recommending the inclusion of policies that promote smart growth and overall mobility will be most effective in reducing VMT and increasing overall mobility for this Alternative. Correspondingly, it will also have the most potential impact to result in unmitigated or partially mitigated vehicular level of service impacts. This is a *significant and unavoidable* impact.

MITIGATION MEASURES:

The same mitigation measures that apply to the Project also apply to the Mixed Use Alternative. See TC-1 through TC-4.

IMPACT: BICYCLE AND PEDESTRIAN FACILITIES

The Mixed Use Alternative incorporates the Bikeway Master Plan and Pedestrian Master Plan, and includes General Plan policies for the planning, funding, and implementation of bicycle and pedestrian facilities to address mobility needs. As outlined in the discussion of Project impacts, the aggressive implementation of an effective bicycle and pedestrian infrastructure is also necessary to reduce projects effects on roadway level of service, congestion, delay, mobility, and air quality.

When evaluated in accordance with the standards of significance, the impact of the Alternative is *less than significant.*

MITIGATION MEASURES:

None recommended.

IMPACT: SAFETY

The Mixed Use Alternative incorporates policies related to transportation facility planning, design, and implementation in accordance with accepted design standards and guidelines. When evaluated in accordance with the standards of significance, the impact of the Alternative is *less than significant.*

MITIGATION MEASURES:

None recommended.

IMPACT: TRANSIT

The increases in households and employment associated with the Mixed Use Alternative will increase the demand for transit services. Although it is the intent of the Alternative to provide such services, it may not be possible to provide adequate transit services due to future funding uncertainties. The transit system associated with the MTP assumes future funding sources that are not guaranteed. This may result in less transit service than appropriate to support the Alternative, and/or delays in the implementation of appropriate transit service. While the Remove Grant Line East and Focused Growth Alternatives involve substantial new growth outside of the urban core, all of the Mixed Use Alternative growth will be within the urbanized area. This will result in lower levels of capital and operating funding needs than the other Alternatives. It will also concentrate development within areas that already have transit services, which will result in improvements to existing transit services and increases in transit mobility for both proposed and existing development areas.

As discussed previously, the automobile traffic that results from the increase in holding capacity of the proposed Alternative (both housing units and employment) results in extensive LOS deficiencies, delay, and congestion throughout the unincorporated County and other jurisdictions, affecting the mobility of existing and future residents, employees, and visitors. The provision of appropriate transit services throughout the unincorporated County will assist in a mode shift that will help mitigate such impacts. The transit mitigation measures associated with the Project are also appropriate for this Alternative. However, it may not be possible to provide adequate transit services in a timely fashion due to future funding uncertainties. The impact of the Alternative is *significant and unavoidable.*

MITIGATION MEASURES:

See **TC-6** ~~TC-5~~.

Plate TC-9 Remove Grant Line East Alternative 2030 Roadway LOS

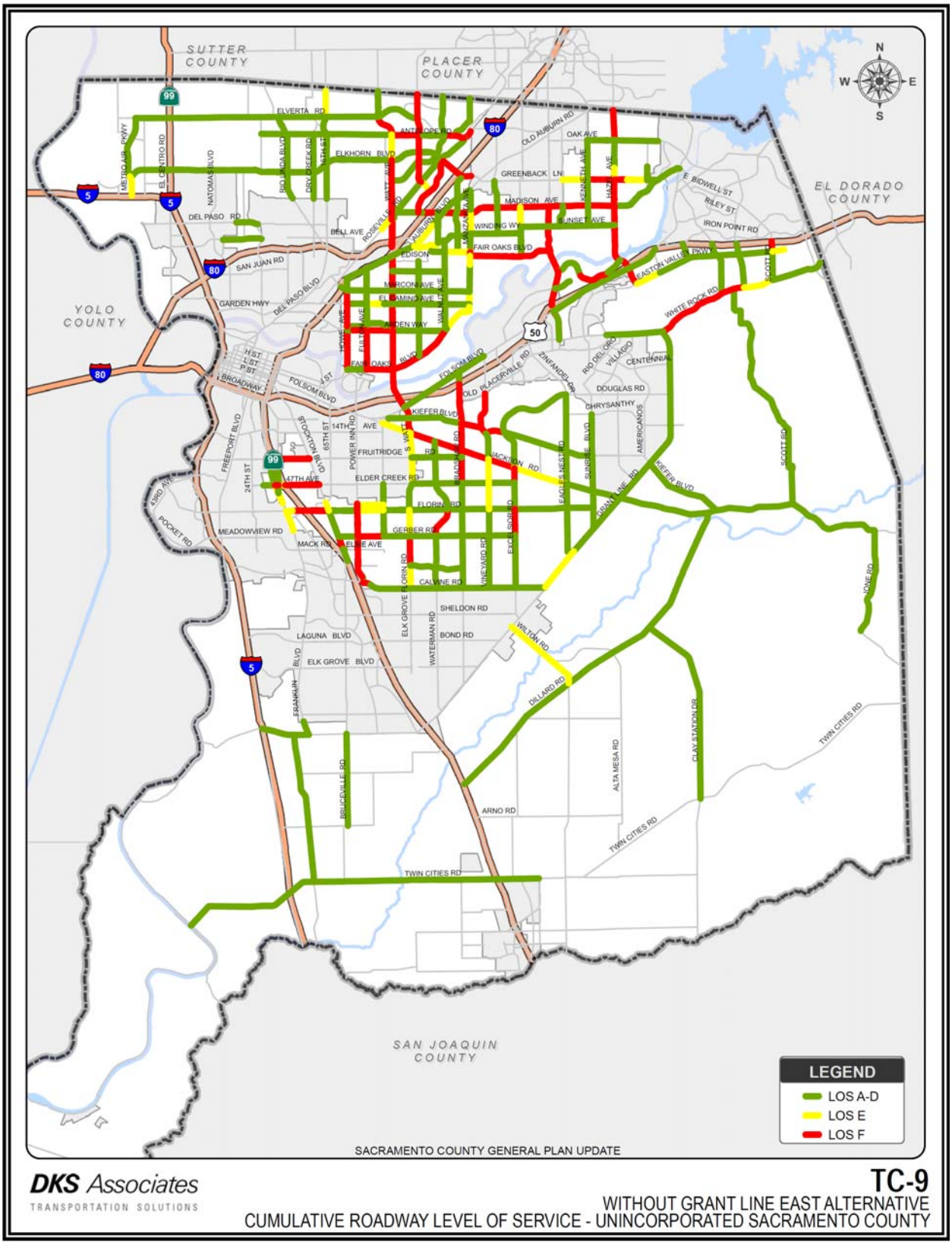


Plate TC-10 Focused Growth Alternative 2030 Roadway LOS

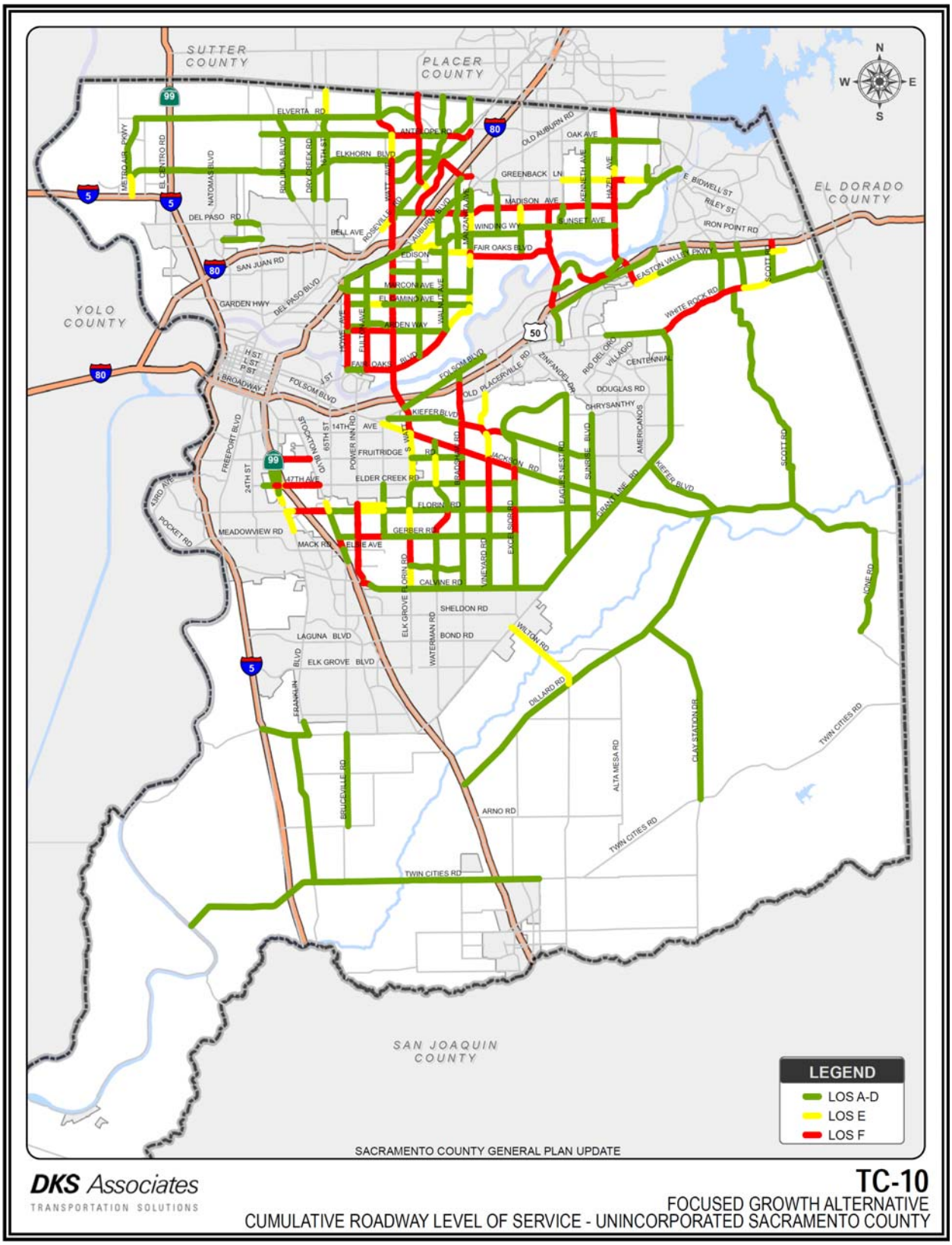


Plate TC-11 Mixed Use Alternative 2030 Roadway LOS

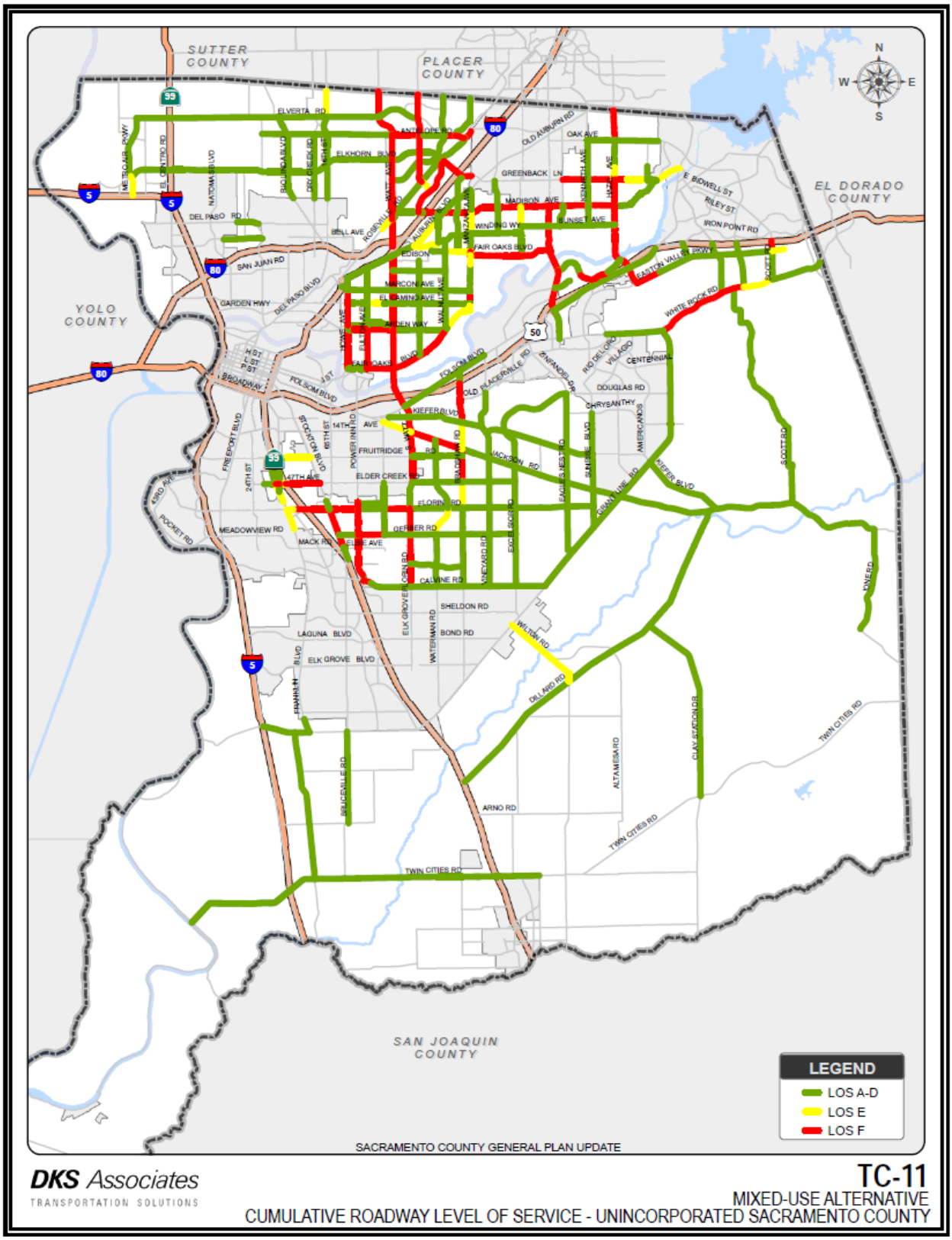


Plate TC-12 Remove Grant Line East Alternative Significant LOS Impacts

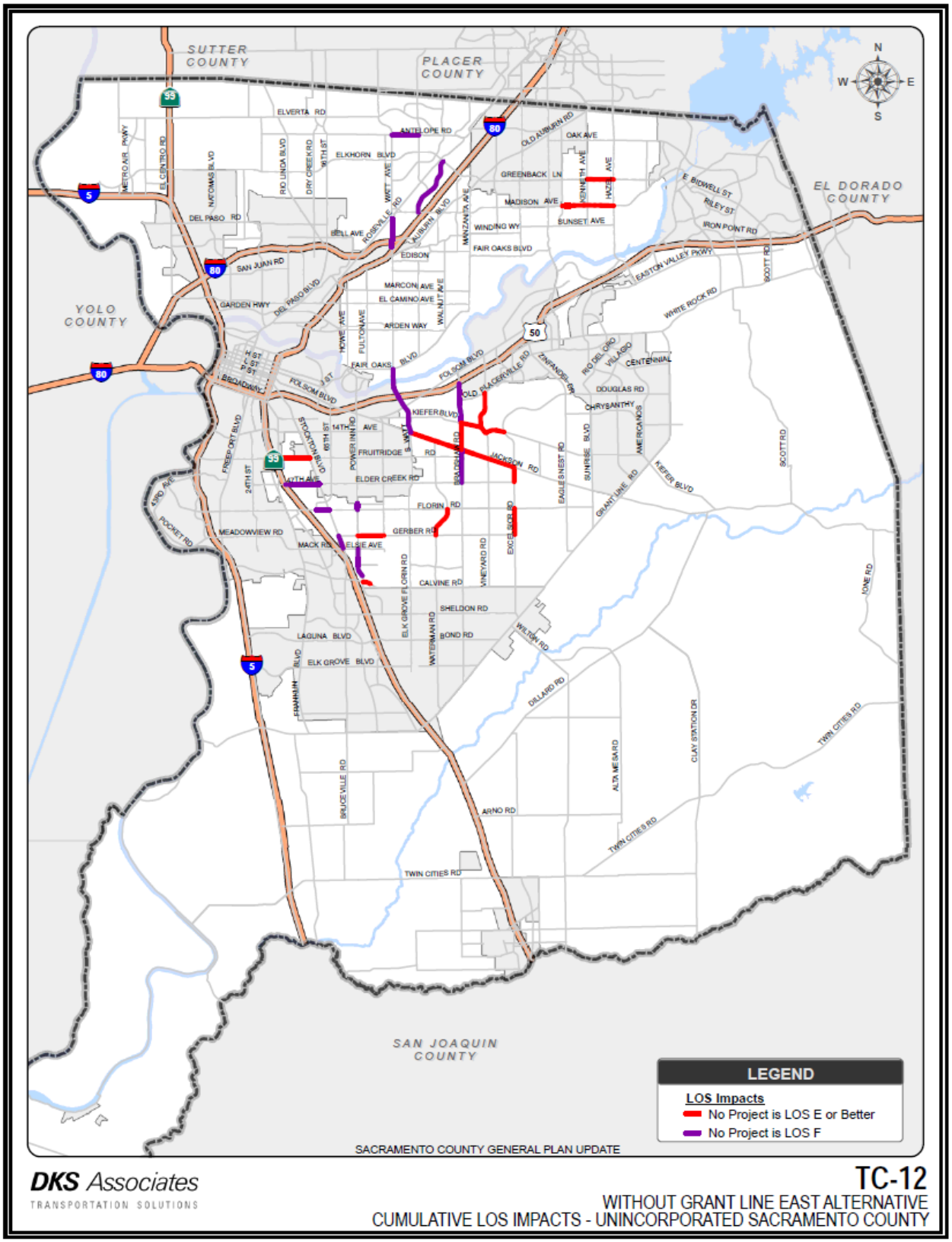


Plate TC-13 Focused Growth Alternative Significant LOS Impacts

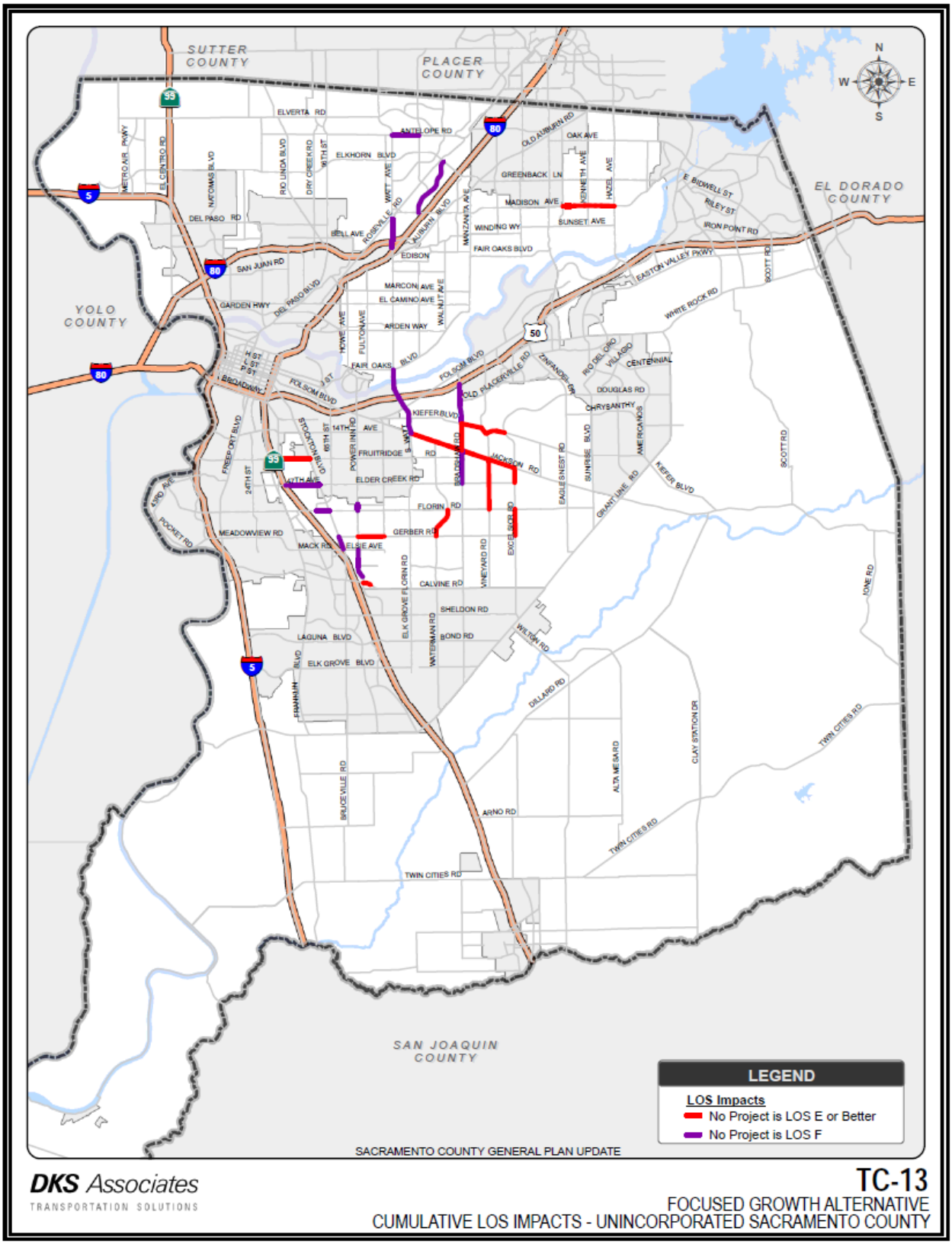


Plate TC-14 Mixed Use Alternative Significant LOS Impacts

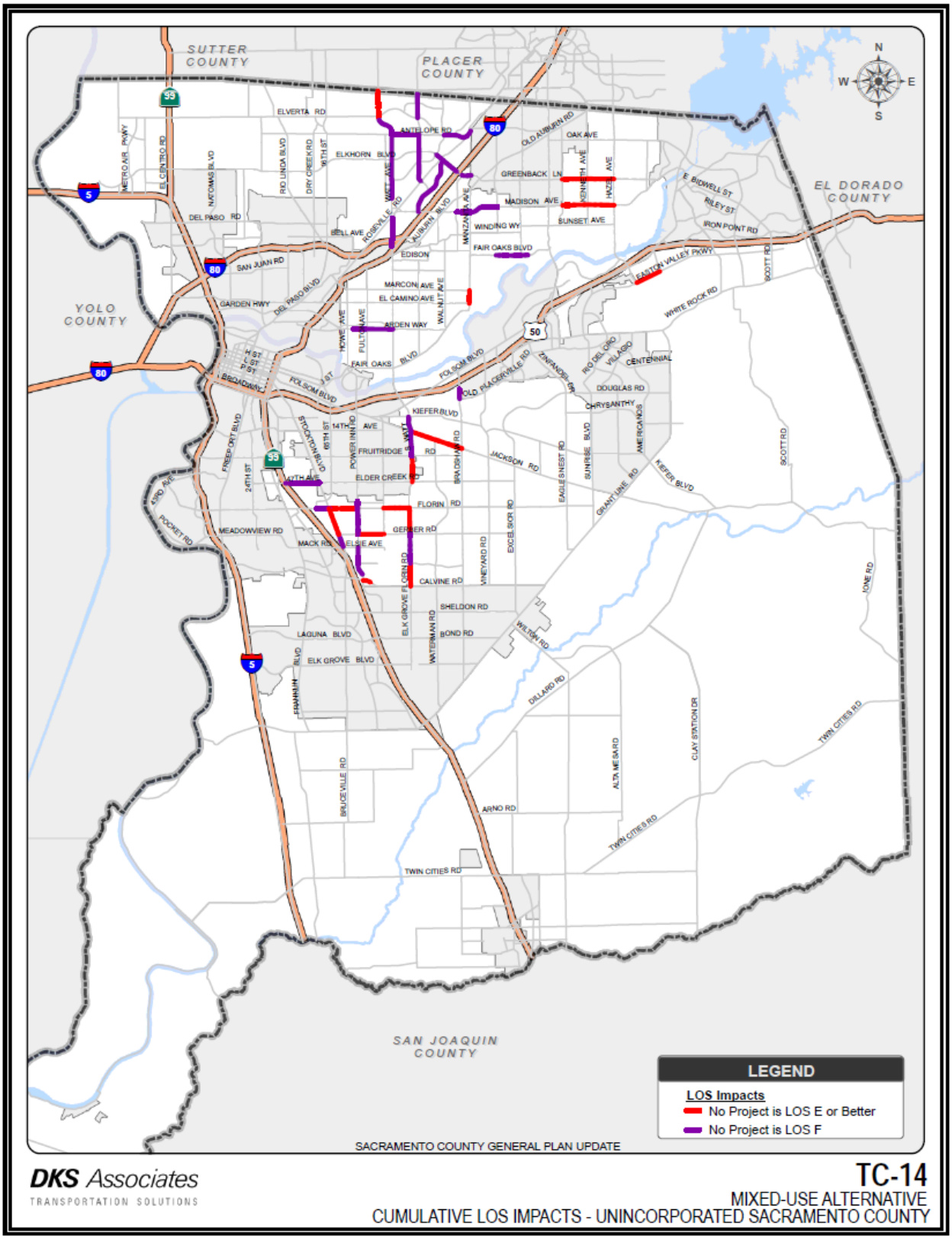


Plate TC-15 Mixed Use Alternative Change in Number of Lanes

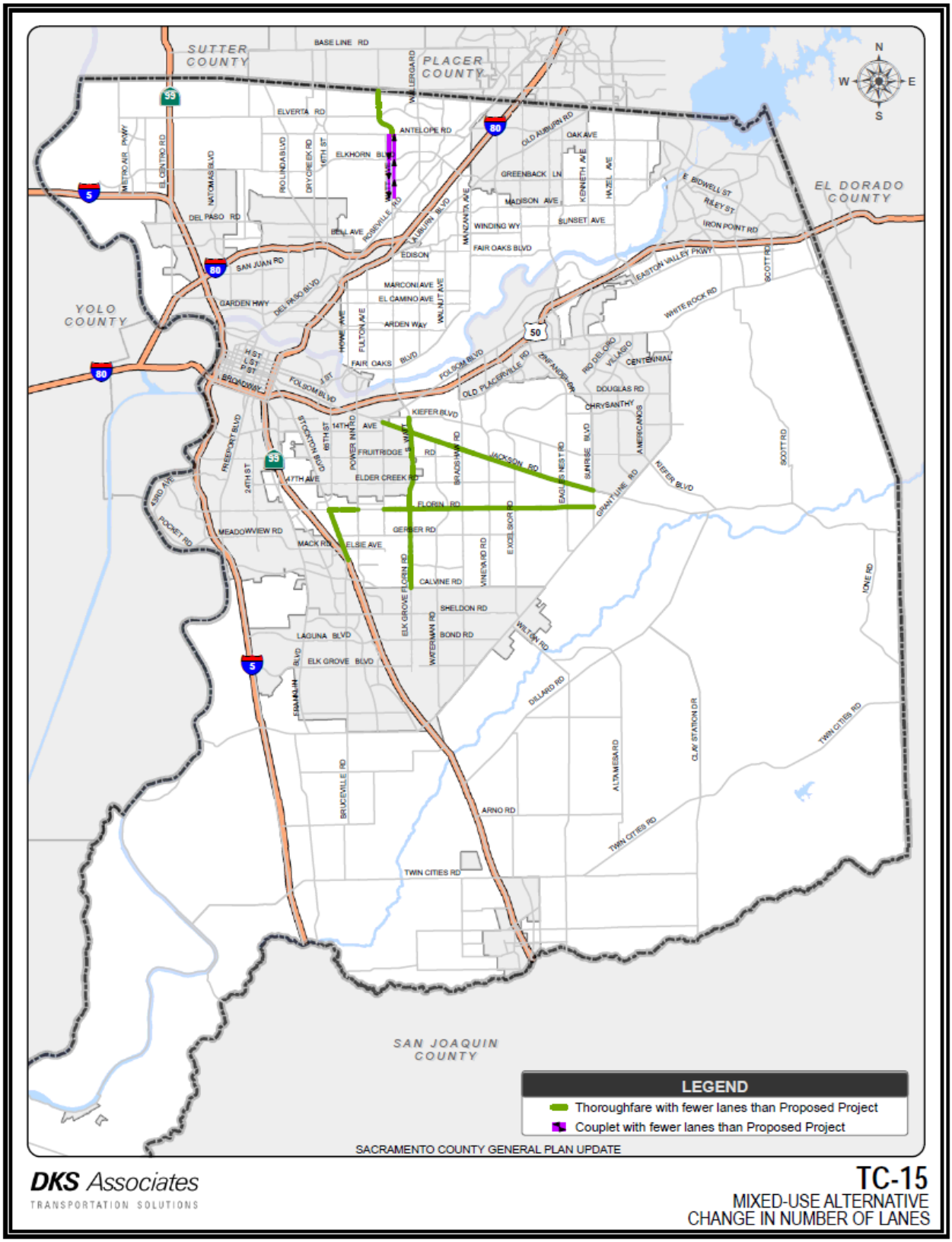


Plate TC-16 Remove Grant Line East Alternative ADT Increase

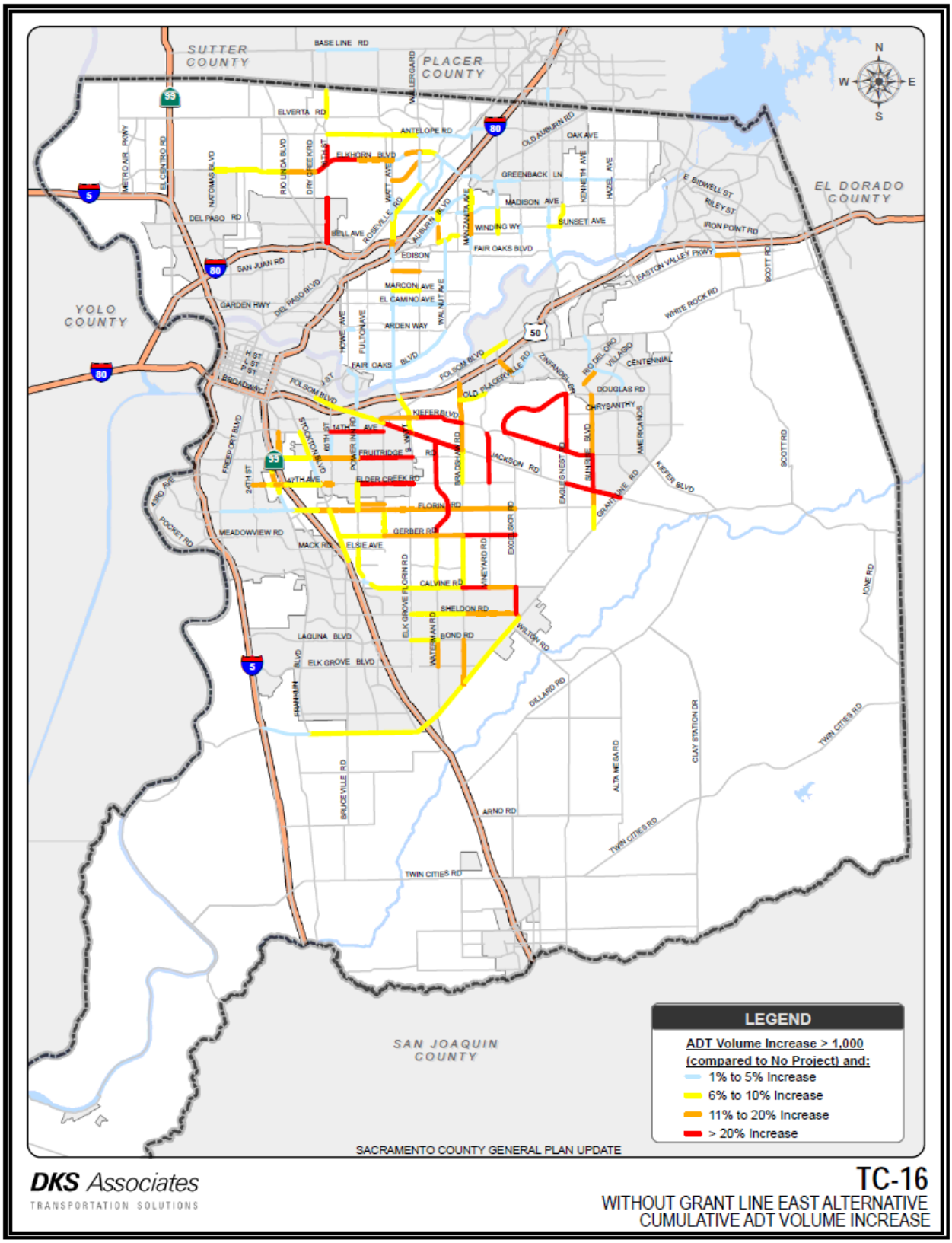


Plate TC-17 Focused Growth Alternative ADT Increase

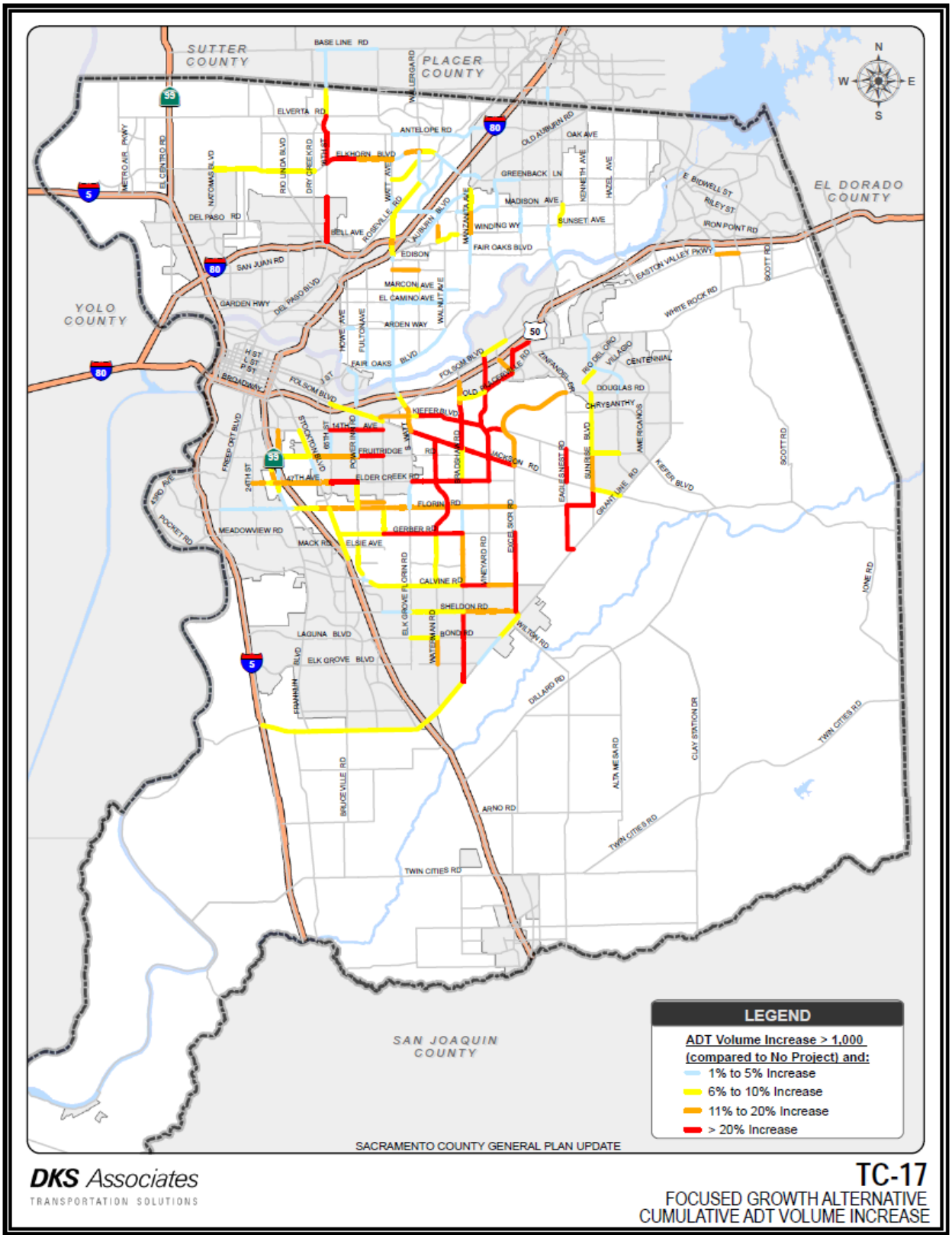
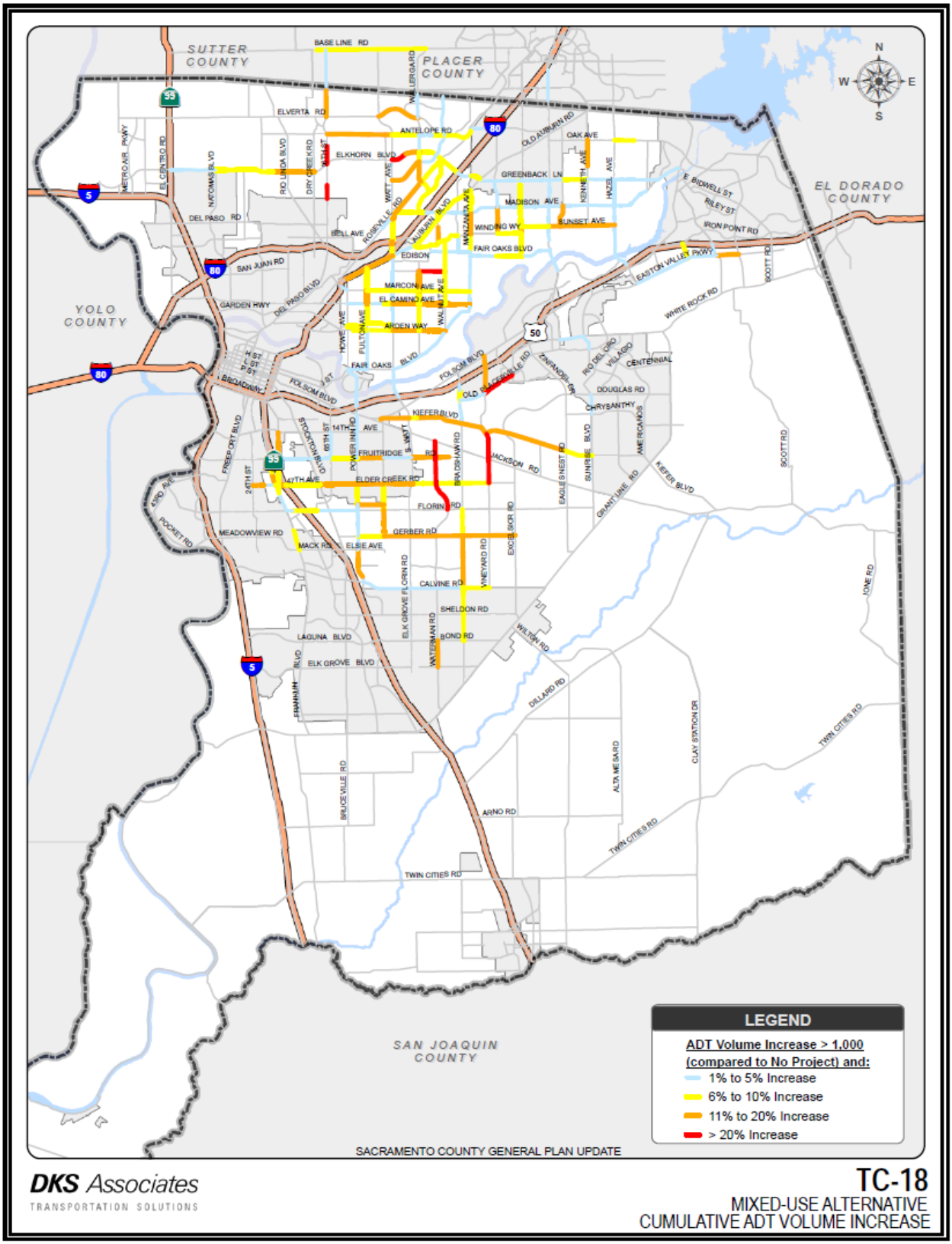


Plate TC-18 Mixed Use Alternative ADT Increase



IMPACT: ROADWAY LEVEL OF SERVICE – PROJECT ALTERNATIVES

Tables TC-21 through TC-24 in Appendix D present the results of the roadway segment analysis of the proposed downgrade alternatives for unincorporated Sacramento County, the freeway system, and other jurisdictions, respectively. Information is provided on the No Project Alternative, the Proposed Project (General Plan Update), the Arterial Downgrade Alternative, and the Thoroughfare Downgrade Alternative. For impact determination purposes, the alternatives are compared to the No Project Alternative.

Plates TC-19 and TC-20 illustrate Cumulative Roadway Level of Service for the Arterial Downgrade Alternative and the Thoroughfare Downgrade Alternative, respectively. Plates TC-21 and TC-22 illustrate roadway segments with significant impacts related to the Arterial Downgrade Alternative and the Thoroughfare Downgrade Alternative, respectively, in unincorporated Sacramento County. Plates TC-23 and TC-24 illustrate the changes in roadway lanes associated with the Arterial Downgrade Alternative and the Thoroughfare Downgrade Alternative, respectively. Plates TC-25 and TC-26 illustrate change in daily traffic volumes associated with the Arterial Downgrade Alternative and the Thoroughfare Downgrade Alternative, respectively.

Each of the Project alternatives (downgrade alternatives) would increase traffic volumes on many roadways throughout unincorporated Sacramento County and other jurisdictions. The alternatives would result in changes in roadway operating conditions that exceed the applicable standards of significance. This is considered a *significant and unavoidable* impact.

Plate TC-19 Arterial Downgrade Alternative 2030 Roadway LOS

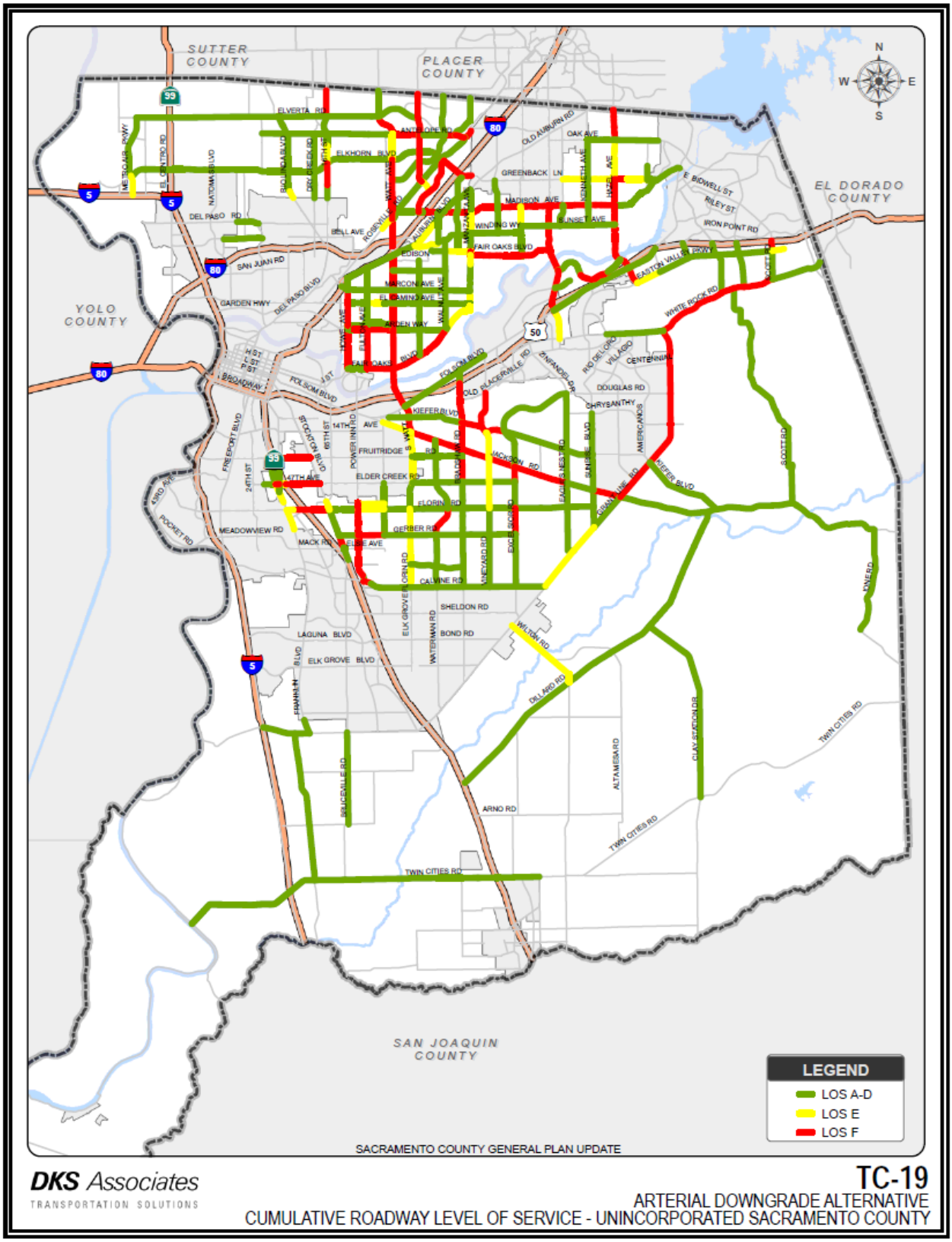


Plate TC-20 Thoroughfare Downgrade Alternative 2030 Roadway LOS

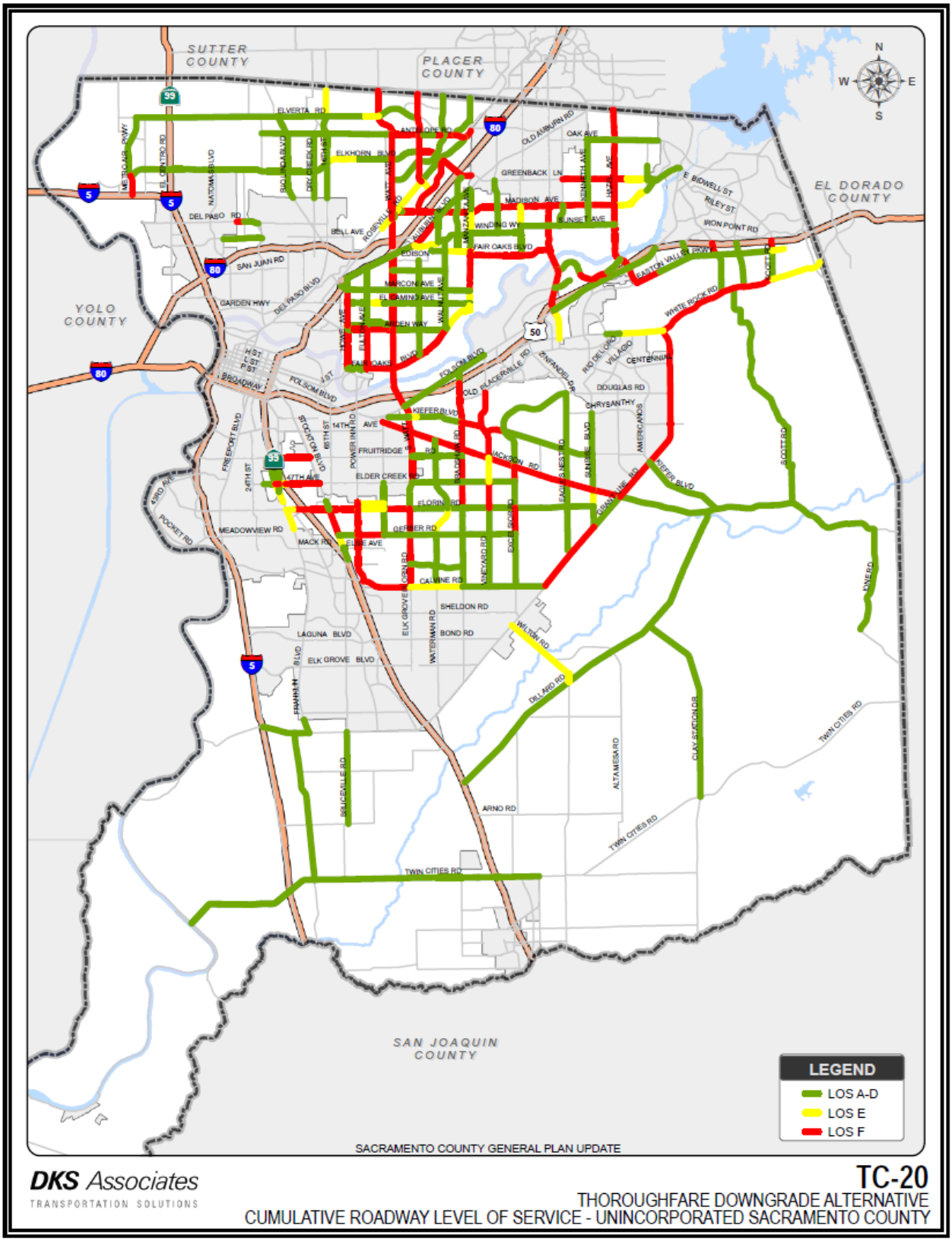


Plate TC-21 Arterial Downgrade Alternative Significant LOS Impacts

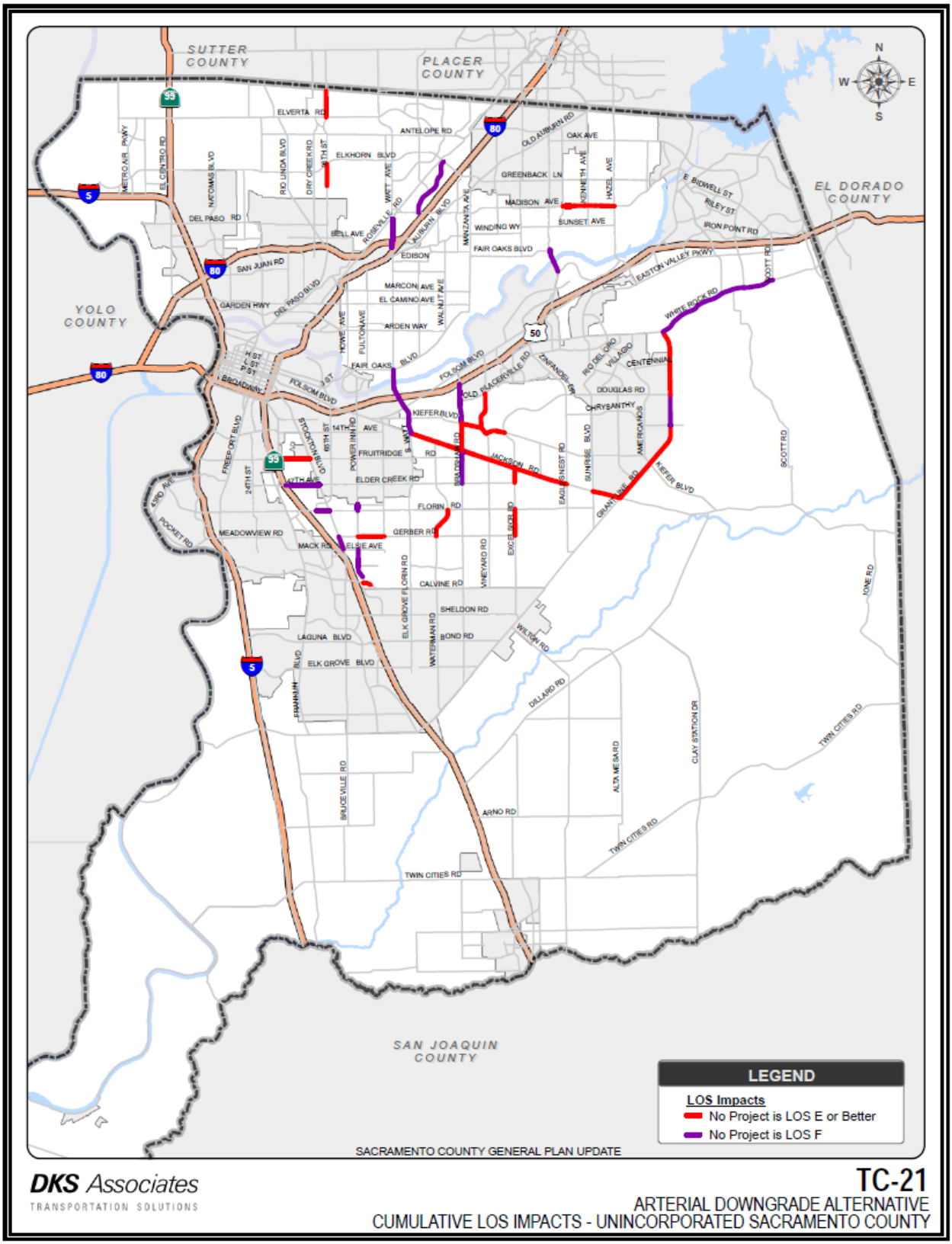


Plate TC-22 Thoroughfare Downgrade Alternative Significant LOS Impacts

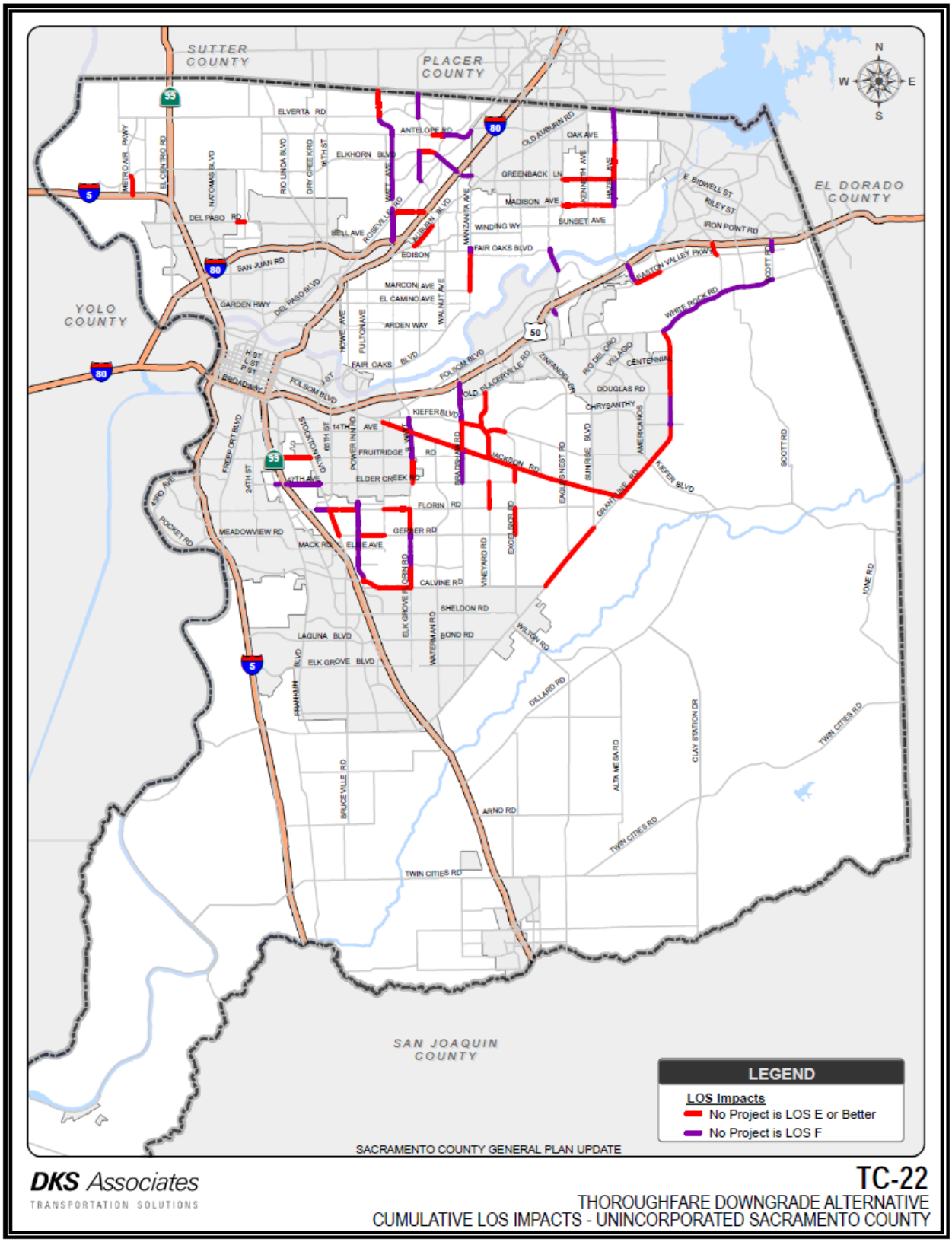


Plate TC-23 Arterial Downgrade Alternative Change in Number of Lanes

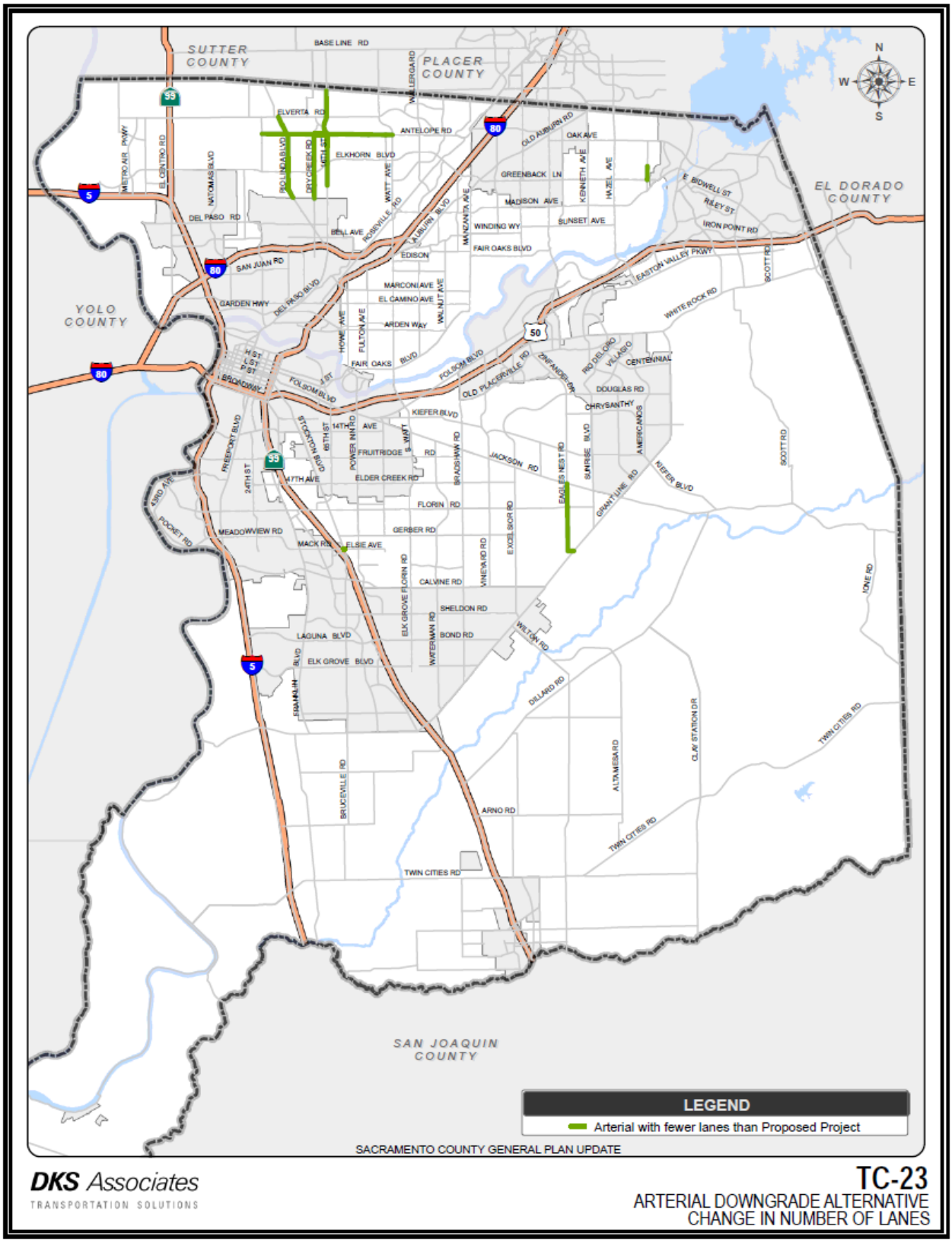


Plate TC-24 Thoroughfare Downgrade Alternative Change in Number of Lanes

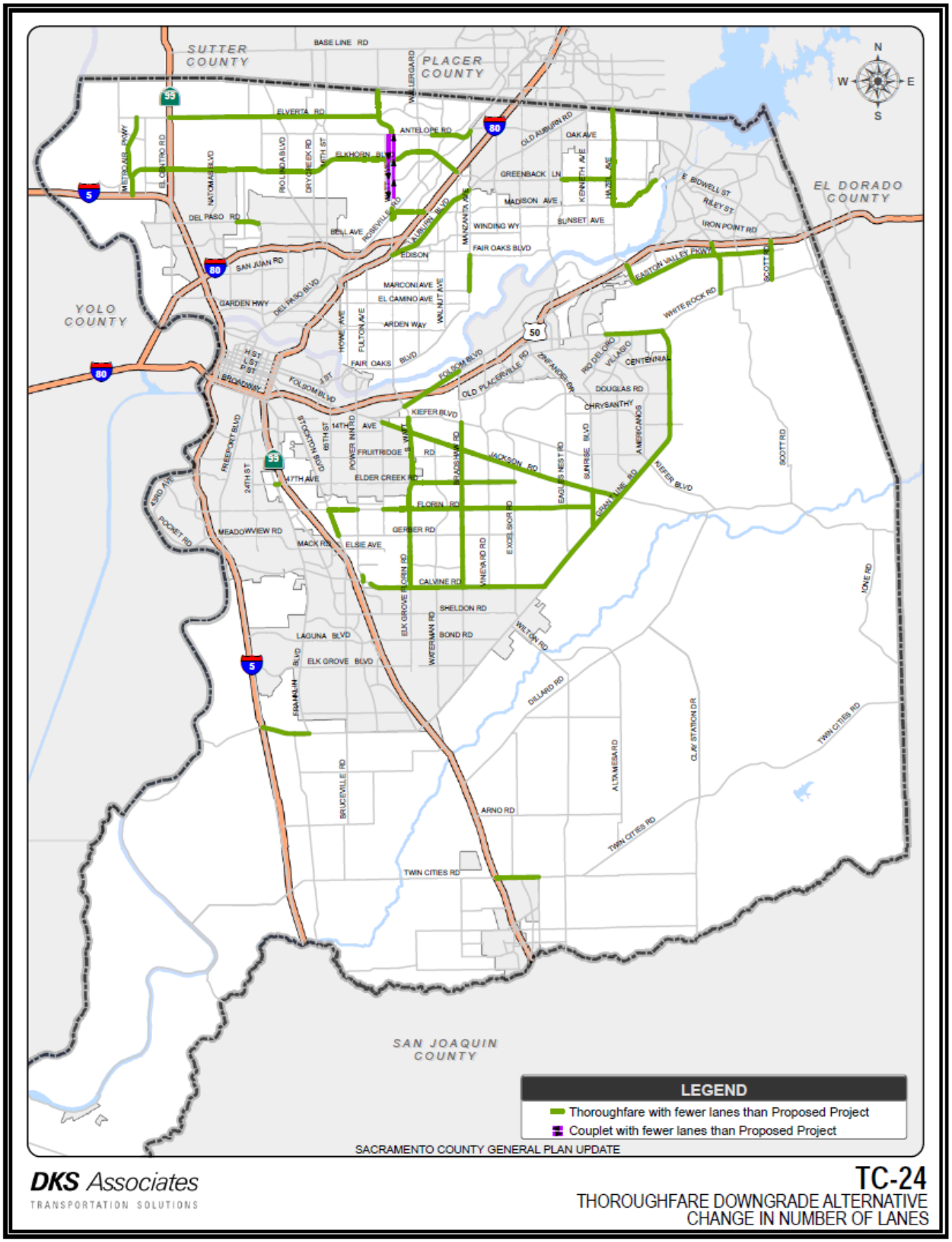


Plate TC-25 Arterial Downgrade Alternative Increase in ADT

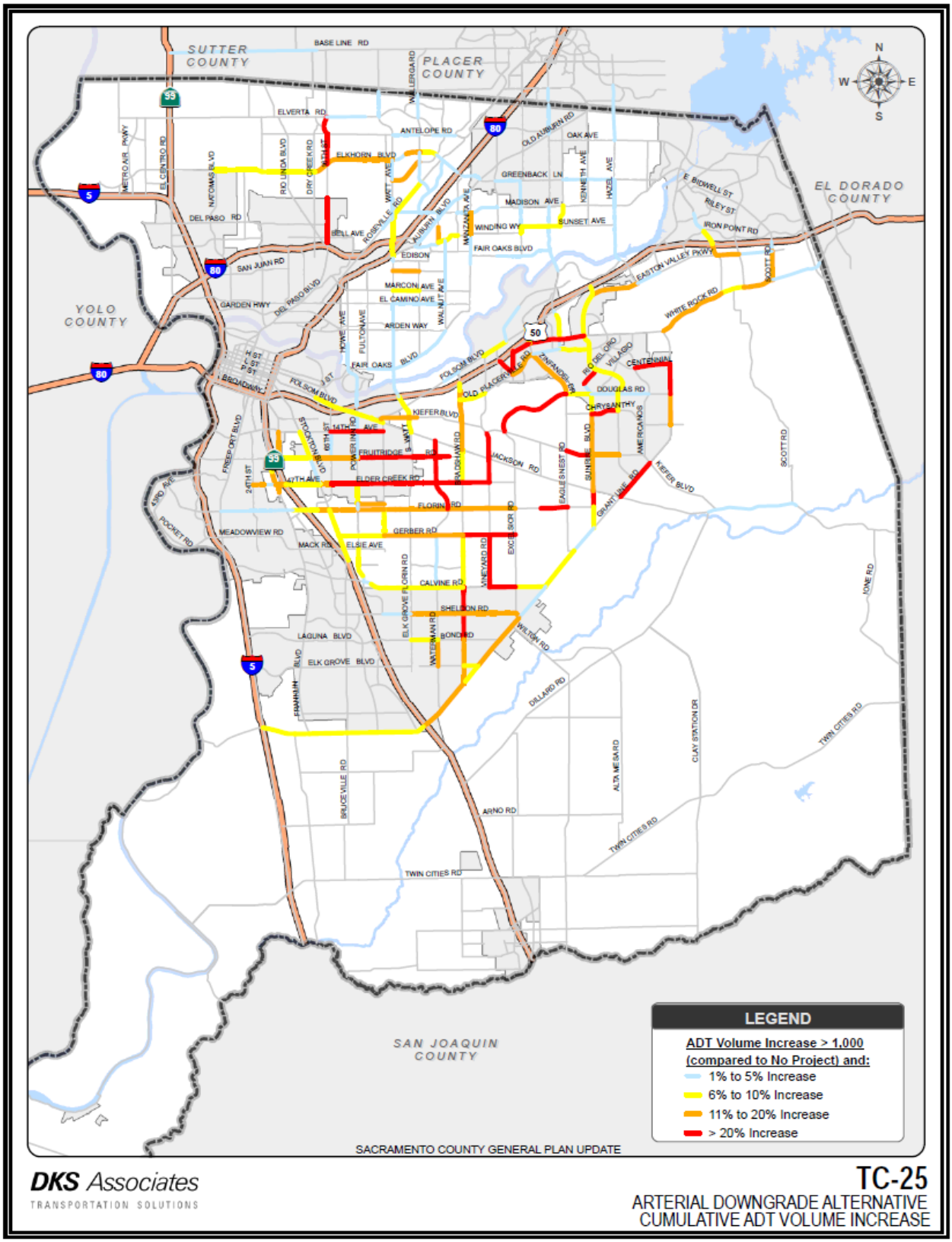
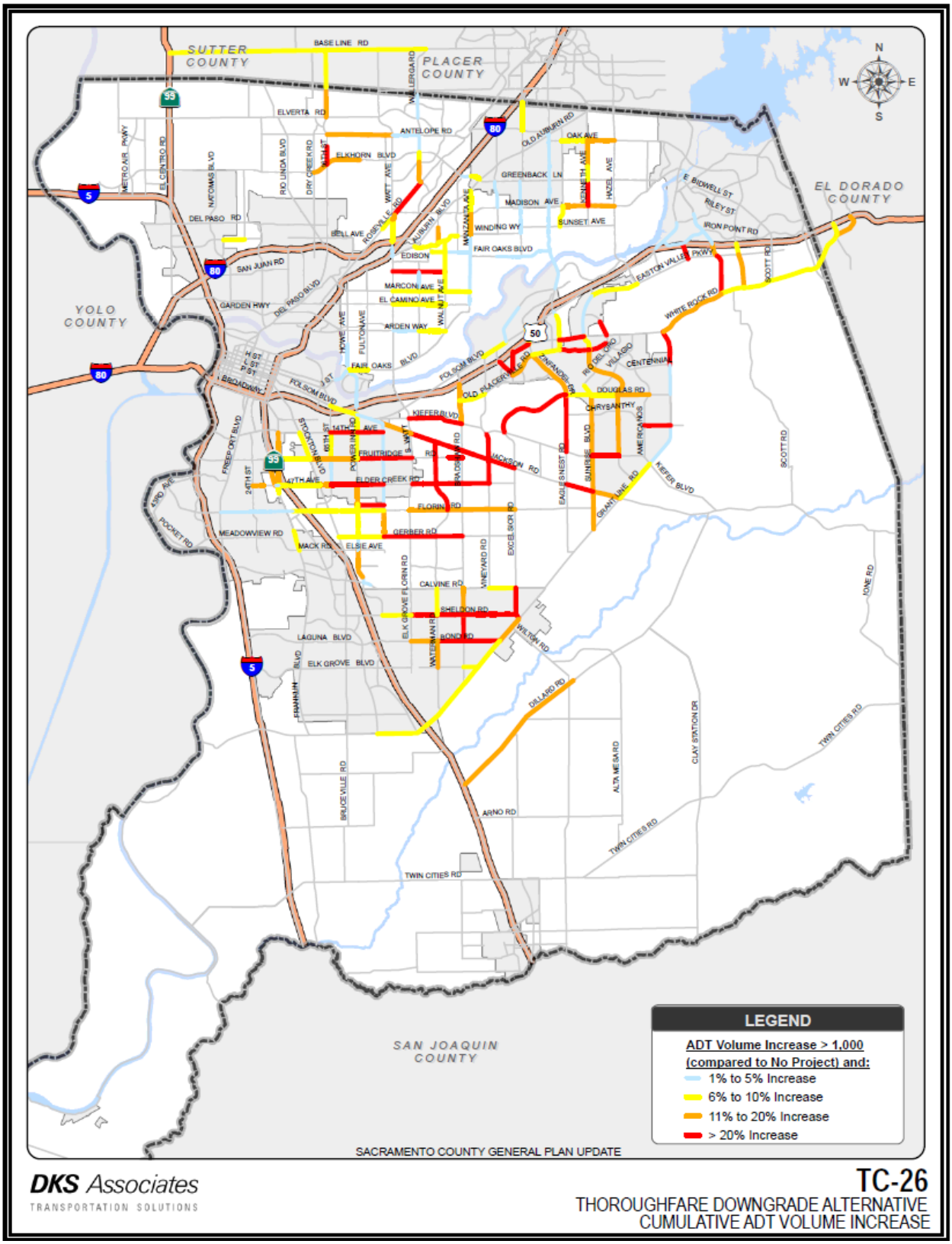


Plate TC-26 Thoroughfare Downgrade Alternative Increase in ADT



Unincorporated Sacramento County

ARTERIAL DOWNGRADE ALTERNATIVE

The Project and the Arterial Downgrade Alternative result in significant level of service impacts on many of the same facilities throughout unincorporated Sacramento County as the proposed General Plan Update. This alternative has fewer impacts than the proposed General Plan Update has on several roadways, including Fair Oaks Boulevard, Florin Road, and Hillsdale Boulevard. This Alternative has greater impacts on 16th Street.

THOROUGHFARE DOWNGRADE ALTERNATIVE

The Project and the Thoroughfare Downgrade Alternative result in significant level of service impacts on many of the same facilities throughout unincorporated Sacramento County as the proposed General Plan Update. This Alternative has fewer impacts than the proposed General Plan Update has on several roadways, including ~~Fair Oaks Boulevard and~~ Hillsdale Boulevard. This Alternative has greater impacts on several roadways, including Antelope Road, Bradshaw Road, Calvine Road, Del Paso Road, Easton Valley Parkway, Elk Grove-Florin Road, Elkhorn Boulevard, Greenback Lane, Jackson Road, Madison Avenue, Metro Air Park Boulevard, Power Inn Road, Scott Road, Sunrise Boulevard, Vineyard Road, Walerga Road, and White Rock Road.

Freeway System

The Project and each of the downgrade alternatives result in significant freeway level of service impacts on I-5, US 50, Business 80, I-80, and SR 99.

Other Jurisdictions

ARTERIAL DOWNGRADE ALTERNATIVE

The Project and the Arterial Downgrade Alternative result in significant level of service impacts on many of the same facilities throughout other jurisdictions as the proposed General Plan Update. This Alternative has fewer impacts than the proposed General Plan Update does on Baseline Road.

THOROUGHFARE DOWNGRADE ALTERNATIVE

The Project and the Thoroughfare Downgrade Alternative result in significant level of service impacts on many of the same facilities throughout other jurisdictions as the proposed General Plan Update. This Alternative has fewer impacts than the proposed General Plan Update has on several roadways, including Prairie City Road

This Alternative has greater impacts than the proposed General Plan Update does on several roadways, including Florin Perkins Road, H Street, Antelope Road, Oak Avenue, International Boulevard, Sunrise Boulevard, White Rock Road, and Cirby Way.

SUMMARY OF ROADWAY SEGMENT IMPACTS

The downgrade alternatives would worsen levels of service on downgraded roadways, when compared to the Project, and would result in changes in roadway operating conditions that exceed the applicable standards of significance. Despite the improvements in mobility that could be accomplished through the application of mitigation, it is considered infeasible to fully mitigate the impacts of the downgrade alternatives on roadways.

MITIGATION MEASURES:

The same programmatic mitigation measures that apply to the Project also apply to the Project Alternatives. See TC-1 through TC-4.

IMPACT: BICYCLE AND PEDESTRIAN FACILITIES – PROJECT ALTERNATIVES

The Project Alternatives incorporate the Bikeway Master Plan and Pedestrian Master Plan, and include General Plan policies for the planning, funding, and implementation of bicycle and pedestrian facilities to address mobility needs. However, as outlined in the discussion of project impacts, the aggressive implementation of an effective bicycle and pedestrian infrastructure is also necessary to reduce projects effects on roadway level of service, congestion, delay, mobility, and air quality.

When evaluated in accordance with the standards of significance, the impact of the Alternatives is *less than significant.*

MITIGATION MEASURES:

None recommended.

IMPACT: SAFETY – PROJECT ALTERNATIVES

The Project Alternatives incorporate policies related to transportation facility planning, design, and implementation in accordance with accepted design standards and guidelines. When evaluated in accordance with the standards of significance, the impact of the Alternatives is *less than significant.*

MITIGATION MEASURES:

None recommended.

IMPACT: TRANSIT – PROJECT ALTERNATIVES

The Project Alternatives do not alter the proposed Project increases in households and employment, only the proposed roadway system. In terms of overall demand, the impact of these Project Alternatives on transit services is the same as the Project. Although it is the intent of the Alternatives to provide transit services, it may not be possible to provide adequate transit services due to future funding uncertainties. The transit system associated with the MTP assumes future funding sources that are not guaranteed. This may result in less transit service than appropriate to support the Project, and/or delays in the implementation of appropriate transit service.

Because the Arterial Downgrade Alternative and Thoroughfare Downgrade Alternative reduce the right-of-way required for roadway lanes, it may be possible to use available right-of-way to increase the number of exclusive transit lanes. However, this assumes that right-of-way has already been acquired for the current ultimate roadway designation, or that additional right-of-way would be acquired in the future (beyond the typical right-of-way for the redesignated facilities). If such right-of-way is available and if exclusive transit lanes were to be implemented in such locations, improved transit travel times and increased transit ridership could occur. However, it is not possible to quantify such effects at this time, as the availability of such right-of-way in the future is not known.

As discussed previously, the automobile traffic that results from the increase in holding capacity of the proposed Project (both housing units and employment) results in extensive LOS deficiencies, delay, and congestion throughout the unincorporated County and other jurisdictions, affecting the mobility of existing and future residents, employees, and visitors. The provision of appropriate transit services throughout the unincorporated County, and particularly in new growth areas, will assist in a mode shift that will help mitigate such impacts. Though mitigation is included, this is not sufficient to reduce impacts to less than significant levels. The impact of the Project Alternatives is *significant and unavoidable.*

MITIGATION MEASURES:

See **TC-6** ~~TC-5~~.

SMART GROWTH ANALYSIS

INTRODUCTION

The proposed General Plan Update contains land use and transportation strategies, goals, and policies related to Smart Growth. This section provides the following information on Smart Growth in the General Plan Update:

- Overview of Smart Growth and its role in the General Plan Update

- Transportation and related environmental benefits associated with Smart Growth
- Evaluation of the Smart Growth benefits in the General Plan Update
- Recommendations for Smart Growth implementation in the General Plan Update

OVERVIEW

Smart growth is an urban planning and transportation theory that concentrates growth to avoid urban sprawl; and advocates compact, transit-oriented, walkable, bicycle-friendly land use, including neighborhood schools, complete streets, and mixed use development with a range of housing choices.

TRANSPORTATION BENEFITS OF SMART GROWTH

Transportation benefits are achieved from four key intended effects of smart-growth strategies as follows:

1. Providing opportunities to satisfy travel needs at nearby destinations with shorter vehicle trips, trip chaining, and/or non-motorized travel
    - Clustering of potential non-home destinations such as daycare, cleaners, restaurants, stores, etc. near work sites
    - Providing a higher level of diversity in mixed use clusters
    - Developing neighborhoods with more self-sufficient land-uses
    - Providing greater jobs-housing balance within sub-areas of regions that allows shorter commutes
    - Providing a more complete range of housing options and pricing near employment centers
2. Using land-use to create trips with origin-destination pairs that are more easily traveled by alternative modes
    - Providing higher density residential and work sites near transit
    - Providing higher density residential and work sites along bicycle routes and trails
    - Location of schools along bicycle routes and trails
    - Clustering potential destinations such as daycare, cleaners, restaurants, and stores near work sites and high density residential areas
3. Providing better and more attractive conditions for travel by alternative modes

- Locating business entrances as close as possible to transit stops or stations
- Locating entrances to higher density residential buildings as close as possible to transit stops or stations
- Providing good pedestrian and bicycle access to transit stops or station
- Providing bicycle storage facilities at transit stops and stations
- Providing bicycle storage facilities at high density residential developments, work places, schools, and shopping areas
- Locating development on a grid street network
- Providing a high level of sidewalk coverage

4. Providing economic incentives for use of alternative modes

- Providing a limited supply of parking
- Charging separately for parking at multi-family residential, employment and shopping sites

Smart growth values long-range, regional considerations of sustainability over a short-term focus. Its goals are to achieve a unique sense of community and place; expand the range of transportation, employment, and housing choices; equitably distribute the costs and benefits of development; preserve and enhance natural and cultural resources; and promote public health.

SMART GROWTH POLICIES IN THE GENERAL PLAN UPDATE

The proposed General Plan contains the following policies in the Circulation (CI) and Land Use (LU) sections related to and supportive of Smart Growth:

CI-1. Promote complete streets with access to a diversity of safe and efficient travel modes for all new and existing land uses within Sacramento County.

CI-3. Travel modes should be interconnected to form an integrated, coordinated and balanced multi-modal transportation system, planned and developed consistent with the land uses to be served.

CI-4. Provide multiple transportation choices to link housing, recreational, employment, commercial, educational, and social services.

CI-6. Maintain and rehabilitate the roadway system to maximize safety, mobility, and cost efficiency.

CI-8. Land development projects shall be responsible to mitigate the project's adverse impacts to local and regional traffic.

CI-10. To preserve public safety and local quality of life on collector and local roadways, land development projects shall incorporate appropriate treatments of the Neighborhood Traffic Management Program.

CI-12. Pursue all available sources of funding for the development, improvement, and maintenance of the roadway system.

CI-13. Collaborate with transit providers to provide transit services within the county that are responsive to existing and future transit demand.

CI-14. Promote transit services in appropriate commercial corridors and where population and employment densities are sufficient or could be increased to support those transit services.

CI-15. Collaborate with neighboring jurisdictions and other agencies to achieve land use patterns and densities in areas planned for development that support transit services, preserve adequate rights-of-way, and enhance transit services in the designated transit corridors.

CI-16. Collaborate with the Sacramento Area Council of Governments and transit service providers to pursue all available sources of funding for transit services when consistent with General Plan policies and long-term funding capabilities.

CI-17. Consider the transit needs of senior, disabled, low-income, and transit-dependent persons in making recommendations regarding transit services.

CI-18. Collaborate with transit providers for the development of facilities that provide for efficient links and interconnectivity with different transportation modes, including bicyclists and pedestrians.

CI-19. Consider the need for future transit right-of-way in reviewing and approving plans for development. Rights-of-way may either be exclusive or shared with other modes of travel.

CI-20. Consider the expansion of Neighborhood Shuttle services in unincorporated area communities.

CI-21. Promote the development of a comprehensive, safe, convenient and accessible bicycle and pedestrian system that serves and connects the County's employment, commercial, recreational, educational, social services, housing and other transportation modes.

CI-22. Adopt, implement and periodically update the Bikeway Master Plan for unincorporated Sacramento County that sets forth the goals, policies, guidelines, programs and improvements necessary to accomplish the goals of this section.

CI-23. Adopt, implement and periodically update the Pedestrian Master Plan for unincorporated Sacramento County that sets forth the goals, policies, guidelines, programs and improvements necessary to accomplish the goals of this section.

CI-24. Construct and maintain bikeways and multi-use trails to minimize conflicts between bicyclists, pedestrians, and motorists.

CI-25. Require land development projects to finance and install bicycle and pedestrian facilities and multi-use trails as appropriate and in accordance with the Bikeway and Pedestrian Master Plans.

CI-26. Collaborate with neighboring jurisdictions and regional agencies to coordinate planning and development of the County's bikeways, pedestrian facilities and multiuse trails with those of neighboring jurisdictions, and to support a regional bicycle and pedestrian network.

CI-27. Pursue all available sources of funding for the development, improvement, and maintenance of bikeways, pedestrian facilities and multi-use trails, and to support bicycle and pedestrian safety, education, encouragement and enforcement programs.

CI-28. Design and construct pedestrian facilities to ensure that such facilities are accessible to all users.

CI-30. Require land development projects to fund, implement, operate and/or participate in TSM programs to manage travel demand associated with the new development project.

CI-31. Consider TSM programs that increase the average occupancy of vehicles and divert automobile commute trips to transit, walking, and bicycling.

LU-1. The County shall not provide urban services beyond the Urban Policy Area, except when the County determines the need for health and safety purposes.

LU-2. The County shall maintain an Urban Service Boundary that defines the long-range plans (beyond twenty five years) for urbanization and extension of public infrastructure and services, and defines important areas for protecting as open space and agriculture.

LU-3. Support a strategic, comprehensive and multi-disciplinary visioning effort for the greater Jackson Highway area, initiated and led by the County,

which looks beyond the planning period of the adopted General Plan to ensure that high quality and cohesive development patterns are achieved consistent with regional smart growth objectives.

LU-4. It is the intent of the County to focus investment of public resources on revitalization efforts within existing communities, especially within commercial corridors, while also allowing planning and development to occur within strategic new growth areas.

LU-5. The County shall give priority to residential development on vacant or underutilized sites within existing urban areas that have infrastructure capacity available.

LU-6. All residential projects involving ten or more units, excluding remainder lots and Lot A's, shall not have densities less than 75% of zoned maximums, unless physical or environmental constraints make achieving the minimum densities impossible.

LU-7. Provide for the development of vacant or underutilized portions of commercial projects and industrial-office parks with medium or high-density residential uses or mixed use development where appropriate, such as near existing or future transit service.

LU-8. Provide for additional mixed use development in commercial parking areas where such uses would be compatible with surrounding uses and where parking demand can be appropriately accommodated or structured parking can be constructed.

LU-9. Maximize residential buildout of planned communities at a minimum of the approved plan densities.

LU-10. Consider private amendment applications that seek to increase densities within planned communities, including in pending and approved Specific Plan areas, when the project area is appropriately designed and sited.

LU-12. It is the intent of the County to comprehensively plan for the revitalization of the targeted commercial corridors and invest the resources necessary to: stimulate private investment; encourage development of vacant and underutilized parcels; support reuse and/or rehabilitation of abandoned or blighted buildings; encourage rezoning of excess industrial and commercial lands to allow for medium and high density residential or mixed use projects, and; avoid non transit supportive uses, such as industrial uses, low density residential, and uses that would necessitate large parking lots fronting on the street.

LU-13. The County will promote new urban developments within identified growth areas and prohibit land use projects which are for noncontiguous

development, specifically proposals outside of the Urban Policy Area (i.e., leapfrog development).

LU-14. A Public Facilities/Infrastructure Master Plan shall be prepared to identify the major facilities required to serve new development in urban growth areas. A Public Facilities Financing Plan shall be prepared and approved by the Board of Supervisors prior to the approval of any zoning for any urban uses in urban growth areas. The Financing Plan shall include a Public Facilities/Infrastructure Master Plan describing required major infrastructure improvements necessary to support proposed developments, and present a detail plan for the phasing of capital improvements and identifies the extent, timing and estimated costs of all necessary infrastructure.

LU-18. Apply the "Community Design Guidelines" and design review authority to all long range planning efforts, including but not limited to Specific Plans, Comprehensive Plans, Community Plans, and Commercial Corridor Plans.

LU-19. Support implementation of the design review program on a project-by-project basis to ensure that all development applications positively contribute to the immediate neighborhood and the surrounding community.

LU-23. Promote a better balance of employment, neighborhood services, and different housing types by reviewing development projects and the surrounding community and designing new projects wherever feasible so that they maintain or improve the mix of uses in the community.

LU-24. Specific Plans and Community Plans for areas within the Urban Service Boundary should provide a balance of employment, neighborhood services, and different housing types wherever feasible.

LU-25. Providing compact, mixed use developments shall be an integral part of all master planning efforts for new growth areas and commercial corridors.

LU-26. Support private development requests that propose pedestrian- and transit-friendly mixed use projects in commercial corridors, town centers, and near existing or proposed transit stops.

LU-27. Depending on its emphasis, a mixed use development should include the following proportions of different uses, shown as percentages of the site area:

	EMPHASIS OF DEVELOPMENT		
	COMMERCIAL	OFFICE	RESIDENTIAL
USE			
Retail	50-70%	10-30%	10-30%
Office	0-20%	50-70%	0-30%
Residential	20-40%	0-30%	50-80%
Public	10-30%	10-30%	10-30%

LU-28. When planning for new development in either new or existing communities, the following features shall be considered for their public health benefits and ability to encourage more active lifestyles:

- Compact, mixed use development and a balance of land uses so that everyday needs are within walking distance, including schools, parks, jobs, retail and grocery stores.
- Streets, paths and public transportation that connect multiple destinations and provide for alternatives to the automobile.
- Wide sidewalks, shorter blocks, well-marked crosswalks, on-street parking, shaded streets and traffic-calming measures to encourage pedestrian activity.
- Walkable commercial areas with doors and windows fronting on the street, street furniture, pedestrian-scale lighting, and served by transit when feasible.

LU-29. Provide safe, interesting and convenient environments for pedestrians and bicyclists, including inviting and adequately-lit streetscapes, networks of trails, paths and parks and open spaces located near residences, to encourage regular exercise and reduce vehicular emissions.

LU-34. It is the policy of Sacramento County to support and encourage Transit Oriented Development (TODs) in appropriate areas throughout the county. Development applications within ½ mile of a transit stop/station shall comply with the TOD development requirements as listed on Table 8 *(Land Use Element)*. Appropriate locations include transit stops or nodes in commercial corridors, Bus Rapid Transit (BRT) or Light Rail stations, transit stops in new growth areas, or opportunity sites identified in Regional Transit's Master Plan. If the Planning Department determines that an application is inconsistent with the intent of this policy, the Board of

Supervisors shall be the appropriate hearing body to determine feasibility of consistency.

LU-35. Parking requirements may be reduced in order to meet the density requirements established by policy LU-34.

LU-36. Developments in the areas designated on the Land Use Diagram as Transit Oriented Development shall be designed in a manner that conforms to the concepts of transit oriented development, including:

- High intensity, mixed use development concentrated in a Core Area within an easy walk (one quarter mile) of a transit stop on the Trunk or Feeder Line Network.
- An emphasis on neighborhood support commercial services at street level in the Core Area that can serve the residents of the Core and surrounding Secondary Areas, with other employment encouraged in the TODs created along the Trunk Line Network.
- A pleasant walking environment created through good land use design, short distances, amenities, and streetscape features.
- Direct, multiple linkages, especially for bicycles and pedestrians, between the Core Area and the surrounding Secondary Area.

LU-37. The primary concepts in LU-36 should be employed wherever feasible in new urban development.

LU-38. Community Plans and Specific Plans shall employ the primary concepts in LU-36 in designating locations for higher intensity mixed use development and designing circulation and pedestrian networks.

LU-39. Promote and support development of pedestrian and bicycle connections between transit stations and nearby residential, commercial, employment or civic uses by eliminating physical barriers and providing linking facilities, such as pedestrian overcrossings, trails, wide sidewalks and safe street crossings.

LU-40. Community Plans, Specific Plans, and development projects shall be designed to promote pedestrian movement through direct, safe, and pleasant routes that connect destinations inside and outside the plan or project area.

LU-41. Support implementation of the ADA Transitional Plan and the Pedestrian Master Plan to create a network of safe, accessible and appealing pedestrian facilities and environments.

LU-42. Employ appropriate traffic calming measures in areas where pedestrian travel is desirable but made unsafe by a high volume or excessive speed of automobile traffic. Preference shall be given to measures that slow traffic and improve pedestrian safety while creating the least amount of conflict with emergency responders.

LU-43. Encourage placement of active uses, such as retailers, restaurants, and various services, on the ground floor of buildings in areas where the greatest levels of pedestrian activity are sought.

LU-44. Master planning efforts for new growth areas shall provide for separated sidewalks along all arterials and thoroughfares to make walking a safer and more attractive transportation option.

LU-45. Parking areas shall be designed to:

- Minimize land consumption;
- Provide pleasant and safe pedestrian and bicycle movement;
- Facilitate shared parking
- Allow for the possible reuse of surface parking lots through redevelopment; and,
- Minimize parking lot street frontage.

LU-49. Assure that regionally-oriented commercial and office uses and employment concentrations have adequate road access, high frequency transit service and an adequate but efficient supply of parking.

LU-50. Locate automobile-oriented commercial areas beyond one-half mile of a TOD commercial core area.

LU-51. Discourage the establishment and build-out of linear, strip pattern, commercial centers.

LU-53. All new employment-intensive County offices or offices providing walk-in services to the public shall be located along a Trunk Line or Feeder Line Network.

LU-72. Give the highest priority for public funding to projects that facilitate infill, reuse, redevelopment and rehabilitation, and mixed use development, and the lowest priority for projects that do not comply with public facilities Master Plan phasing sequences.

LU-73. Supplemental mitigation fees may be established by the Board of Supervisors provided they find that supplemental fees are critical and

necessary to meet the facility funding needs of a service provider and that traditional methods are inadequate.

LU-91. Support planning for and development of mixed use centers and urban villages along commercial corridors to improve quality of life by creating diverse neighborhood gathering places, supporting enhanced transit service and non-automotive travel, stimulating local economic development, eliminating blight and balancing land uses.

LU-92. Focus investment of County resources in commercial corridors to facilitate improvements to streetscapes, sidewalks, landscaping, undergrounding of utilities, and other infrastructure and public amenities to encourage and stimulate private investment.

LU-94. Support development of a bus rapid transit system and light rail expansion by encouraging appropriate land uses and densities along planned routes.

SMART GROWTH LAND USE IN THE GENERAL PLAN UPDATE

The Land Use Element of the General Plan Update has been crafted with a focus on Smart Growth principles. The following text from the Draft Land Use Element describes this emphasis:

The Land Use Element's primary role is to ensure that the County's land resources are utilized in the most efficient, equitable and productive manner possible to provide a high quality of life for both current and future residents. This Element's policies and programs direct future development and investment toward previously urbanized communities and strategically-located new growth areas to:

- *Focus on the "Three C's" - Communities, Corridors and Collaboration. Maintain or improve the character of existing communities. Plan for commercial corridor improvements and protection of natural resource and habitat corridors. Participate in regional planning efforts aimed at implementing more compact land use patterns and an efficient multi-modal transportation system.*
- *Infill vacant parcels and intensify development on underutilized lands where appropriate to maintain or improve the quality, character and identity of existing neighborhoods and communities, as well as to relieve growth pressure on the urban fringe.*
- *Create "complete communities" that have a mixture of housing, jobs and retail amenities to reduce automobile dependence, support local commercial and employment opportunities, and create a jobs/housing balance.*
- *Stimulate reinvestment in targeted commercial corridors through comprehensive planning efforts with a strong focus on implementation.*

- *Provide the infrastructure and conditions necessary to encourage walking and biking as a means of travel, as well as to support enhanced transit service.*

- *Maintain the Urban Services Boundary as a permanent boundary to urban development. Direct growth toward previously urbanized areas and select new growth areas to reduce sprawling development, strengthen existing communities, relieve traffic congestion, improve air quality, preserve open space and natural resources, protect valuable agriculture and rangelands, and realize economies of scale for infrastructure and services.*[1]

The General Plan Update directs growth to previously urbanized areas, planned growth areas, and new growth areas. These targeted areas include the following:

BUILDOUT OF INFILL SITES OUTSIDE OF COMMERCIAL CORRIDORS

Growth associated with the General Plan Update will be accommodated on vacant and underutilized infill parcels. This includes development of vacant parcels, redevelopment of abandoned or derelict structures, and intensification of uses on underutilized lands. This development and redevelopment supports compact landforms and improves utilization of existing transportation infrastructure.

BUILDOUT OF PLANNED COMMUNITIES

The County General Plan Update supports the buildout of planned communities, including North Vineyard Station, Vineyard Springs, Elverta, Antelope, and the Florin Vineyard "Gap." These areas contain a large amount of vacant land. Additionally, it is anticipated that additional units beyond existing entitlements will be accommodated in these areas due to market forces. The Buildout of Planned Communities is expected to accommodate 23,084 new households and 8,231 new jobs within the current planning period.

For analysis purposes, the Planned Communities also include the Easton Planning Area, which is an approved project and is included in the No Project Alternative. The Easton Planning Area consists of two approved master-planned communities: Glenborough at Easton and Easton Place. Easton Place is a transit-oriented village focused on RT's Folsom Corridor Light Rail Line. The Easton Planning Area is expected to accommodate 4,883 new households and 14,164 new jobs within the current planning period.

[1] County of Sacramento General Plan, Draft Land Use Element (May 30, 2007), page 2.

COMMERCIAL CORRIDORS

The County has identified 14 corridors for new retail and employment opportunities, as well as additional residential dwelling units. The vacant and underutilized land, along with redevelopment opportunities, within these existing commercial corridors provides an opportunity to accommodate growth in compact, mixed use developments. The development in Commercial Corridors is expected to accommodate 23,000 new households and 80,852 new jobs within the current planning period.

JACKSON HIGHWAY CORRIDOR

The Jackson Highway Corridor provides a large opportunity for future development. The growth area is expected to accommodate 35,254 new households and 35,871 new jobs within the current planning period. To guide and coordinate planning efforts in this growth area, the County will support a strategic, comprehensive, and multi-disciplinary visioning effort to ensure that internal development patterns are achieved consistent with Smart Growth objectives.

WEST OF WATT AVENUE

A large area of Agricultural-Residential zoned land west of Watt Avenue is now available for urban uses resulting from the decommissioning of McClellan Air Force Base and resultant changes in noise contours. The County intends to proactively master plan the entire area to support Smart Growth principles. The West of Watt Avenue area is expected to accommodate 3,445 new households and 709 new jobs within the current planning period.

GRANT LINE EAST AREA

The Grant Line East Area is also being explored as a new growth area in the General Plan Update. ~~SACOG's Blueprint Vision shows this area as "Open Space" and "Vacant Urban Designated Land" through 2050~~. **SACOG land use forecasts, reflecting the Blueprint Vision, do not include any development in this area through the year 2035, five years beyond the planning horizon of this General Plan Update**. Compared to infill and other new growth areas, the Grant Line East Area is the most remote relative to current urban areas and infrastructure. The Grant Line East Area would be expected to accommodate 22,974 new households and 20,868 new jobs within the current planning period.

SMART GROWTH TRANSPORTATION ELEMENTS IN THE GENERAL PLAN UPDATE

The Circulation Element of the General Plan Update recognizes the interrelationships between transportation and land use in creating an integrated and balanced transportation system. The Element focuses on mobility and choices in mode of transportation. The Transportation Plan includes the following facilities:

- Regional Rail Service – Regional and commuter rail to provide high capacity, high-speed service to major destinations with a minimum of stops.
- Light Rail Transit (LRT) – High capacity, generally high-speed transit service within the region with a greater number of stops than regional rail service.
- Bus Rapid Transit (BRT) – High capacity bus service in exclusive or shared right-of-way.
- Bus Feeder Lines – High-quality surface street bus system feeding LRT and BRT lines with 15-minute frequency.
- Roadway System – A comprehensive roadway system classified by function, ranging from local streets to limited-access freeways.
- High-Occupancy Vehicle Lanes – An integrated system of lanes with occupancy restrictions to increase the person-carrying capacity of the roadway system.
- Bikeways – A comprehensive system of bikeways to encourage the use of the bicycle as a viable transportation mode, as well as for recreation.
- Pedestrian System – A complete system of pedestrian facilities that support walking as a viable mode of transportation.

These facilities have been placed on the Transportation Plan in a manner to support existing and planned growth. In particular, high-frequency transit services are planned in conjunction with the Smart Growth development areas of the General Plan Update.

Relationship to The Blueprint

The Sacramento region participated in a multi-jurisdictional, multi-faceted regional planning effort known as the Blueprint. A key element of the process was to plan for anticipated growth in the region in a manner that looks across jurisdictional boundaries and that addresses the substantial environmental effects of development. The Blueprint Project is a joint effort of the Sacramento Council of Governments (SACOG) and Valley Vision. The SACOG Board of Directors adopted the Preferred Blueprint Scenario in December 2004, a vision for growth that promotes compact, mixed use development and more transit choices as an alternative to low density development. The Preferred Blueprint Scenario is part of SACOG's Metropolitan Transportation Plan for 2035, the long-range transportation plan for the six-county region. It also serves as a framework to guide local government in growth and transportation planning through 2050.

The Land Use Element of the General Plan Update supports the land use principles espoused by SACOG's adopted Blueprint Vision and emphasizes their implementation. Within each growth area, the General Plan Update plans for new development that is more compact, transit-oriented, and features a mix of uses in order to implement the Blueprint project's principles and the regional community's desired growth pattern. The

General Plan Update includes policies addressing key programs to implement the Blueprint's vision, including commercial corridor planning, redevelopment and revitalization efforts, strategic infill development in existing communities, multi-modal transportation system enhancements, and planning within new growth areas in a compact manner that feature a balanced mix of uses. County departments, including Planning, Transportation, Economic Development, and Neighborhood Services will collaborate with each other and with other organizations, including SHRA, SACOG, and RT, to ensure that each effort is multi-disciplinary in nature and adheres to the Blueprint's vision and principles.

EVALUATION OF SMART GROWTH IN THE GENERAL PLAN UPDATE

An important element of the General Plan Update is the inclusion of smart growth principles in the land use and transportation planning. At a General Plan analysis level, the necessary detail to fully analyze and evaluate the effectiveness of these Smart Growth principles is unavailable, since smart growth success is dependent on the specific characteristics of each developed area. Such level of detail will be unavailable until specific land use proposals are crafted. Thus, the primary analysis in the transportation and circulation section of the EIR may be somewhat conservative by not fully incorporating potential smart growth benefits. This conservatism may include overestimation of traffic volumes and underestimation of walk, bike, and transit mode share. On the other hand, if Smart Growth principles are not carefully applied as development is planned and built over time, the primary analysis could underestimate the effects of automobile traffic.

This section includes further evaluation of Smart Growth Elements in the General Plan Update. As specific (but very important) details of future land use patterns are unavailable, a series of "reasonably feasible" assumptions were made to further investigate the effects of Smart Growth. The analysis focuses on comparing Smart Growth areas to other nearby "non-Smart Growth" areas in the unincorporated County.

METHODOLOGY

While the regional SACMET model has been utilized for the overall evaluation of the General Plan Update and alternatives, SACOG's Sacramento Regional Travel Simulation Model (SACSIM) was used for the Smart Growth sensitivity analysis.

SACSIM OVERVIEW

SACSIM is fundamentally different from past models in that household travel is modeled from a set of activities undertaken by the household that require travel. Travel is modeled at the individual parcel (household) level rather than the traditional zone level that aggregates a large number of households and employment centers into zones.

A population synthesizer (PopSyn) creates a population database that is used later in the model. The database is comprised of person records, drawn from actual Census Public-Use Microdata Samples (PUMS) households from the Sacramento Region. The

population dataset is consistent with regional residential, employment and school enrollment forecasts in quantity, location, and key demographic variables like age and income. Population datasets are generated for each forecast land use alternative, and are treated as inputs files for testing transportation network alternatives. The population dataset can be directly modified (e.g. changing locations of specific households, changing income or age characteristics, etc.) to test the effects of different land use forecasts or demographic trend assumptions.

Long-term choices (work location, school location, and auto ownership) are simulated for all members of the population. The Person Day Activity and Travel Simulator (DaySim) creates a one-day activity and travel schedule for each person in the population, including a list of their tours (a collection of trips) and the trips on each tour.

The trips predicted by DaySim are aggregated into trip matrices and combined with predicted trips for airport passenger ground access, external trips and commercial traffic into time- and mode-specific trip matrices. The network traffic assignment models load the trips onto the network.

The model iterates until convergence is achieved. Convergence is defined as a model's internal consistency of major data items (i.e. trip tables, traffic volumes, and level-of-service matrices) used throughout the model process. The feedback process that mandates this convergence step is required by Federal regulations for transportation and air quality planning.

SACSIM was developed and estimated using parcel/point land use input data rather than aggregating data to Travel Analysis Zones (TAZs). It is the first regional travel demand model which uses this level of input data. The parcel-level land use data, combined with the population synthesis approach, provides an unprecedented level of model sensitivity and detail regarding representation of land use and its effects on travel behavior. The model was designed and developed with the full intention of capturing land use and transportation inter-relationships that are masked or missed altogether in models based on traffic analysis zones (TAZs).

Some unique variables included in SACSIM at parcel or point level are:

- Households and population
- Employment by sector (retail, office, manufacturing, medical, service, government, etc.)
- K – 12 school enrollment
- University enrollment
- Street pattern/connectivity
- Distance to nearest transit station/stop

- Number of paid, off-street parking spaces

These variables are utilized in SACSIM as parcel/point values (i.e. quantity and type of use on that parcel). The variables are also utilized as "buffered" parcel/point values (e.g., the quantity and type of a use within one-fourth or one-half mile of a parcel).

SACSIM ADVANTAGES FOR SMART GROWTH SENSITIVITY ANALYSIS

Because SACSIM is based on parcels rather than larger TAZs, it is a more effective tool in capturing differences in local density and connectivity. It is suited for comparing smart growth areas (high density, mixed use, grid street patterns) with traditional suburban landforms (cul-de-sac's, lower density, separated land uses).

ASSUMPTIONS FOR SACSIM ANALYSIS

The General Plan does not provide the necessary detail to fully analyze and evaluate the effectiveness of smart growth principles using SACSIM, since smart growth success is dependent on the specific characteristics of each developed area. Such level of detail will be unavailable until specific land use proposals are crafted. Therefore, in order to analyze the effects of smart growth, it was necessary to make assumptions regarding the future landform. These assumptions are summarized in the following section for each growth area, and assume aggressive implementation of smart growth principles as described by the General Plan policies. As the analysis is highly dependent upon such assumptions, it is important to recognize that the smart growth benefits described herein may not occur if smart growth principles are not as aggressively pursued.

PLANNING ASSUMPTIONS

For each of the growth areas, critical assumptions about land use and transportation were made in accordance with the smart growth principles described by the General Plan policies. Table TC-26 in Appendix D summarizes key input characteristics of each area. Of particular importance are densities, mixed use (ratio of jobs per household), transit accessibility, and street pattern/connectivity. All of the newly developed areas of the growth areas were assumed to include a complete grid system of streets.

Table TC-11 Growth Area Land Use and Transportation Assumptions

Characteristic	Growth Area			
	Jackson Highway Corridor	Grant Line East Area	West of Watt Avenue	Commercial Corridors
Entire Growth Area				
Total Households	35,606	22,974	3,760	34,955
Total Employment (Jobs)	37,695	20,927	2,356	118,629
Growth in Households	35,254	22,974	3,445	23,000
Growth in Employment (Jobs)	35,871	20,868	709	80,852
Average Household Density (Households per acre)[1]	9.1	6.8	7.3	13.4
Average Employment Density (Jobs per acre)[2]	24.6	25.6	16.7	38.5
Transit Service	BRT and Frequent Bus	Frequent Bus	BRT and Frequent Bus	Varies, LRT, BRT, High Frequency Bus
Within One-Half Mile of LRT and / or BRT Transit				
Households	15,571	-	1,604	21,109
Employment (Jobs)	19,113	-	2,311	71,693
Typical Household Density (Households per acre)	9.2	-	7.1	13.5
Typical Employment Density (Jobs per acre)	22.6	-	20.7	40.8
Within One-Half Mile of Other Bus Transit[3]				
Households	9,282	3,849	753	11,464
Employment (Jobs)	7,991	1,818	-	37,165
Typical Household Density (Households per acre)	9.9	7.1	6.4	13.3
Typical Employment Density (Jobs per acre)	30.0	37.9	-	35.5

1. Density within residential areas.

2. Density within employment areas.

3. Households and jobs within one-half mile of other bus transit may or may not also be within one-half mile of LRT and / or BRT transit.

Source: DKS Associates, 2009.

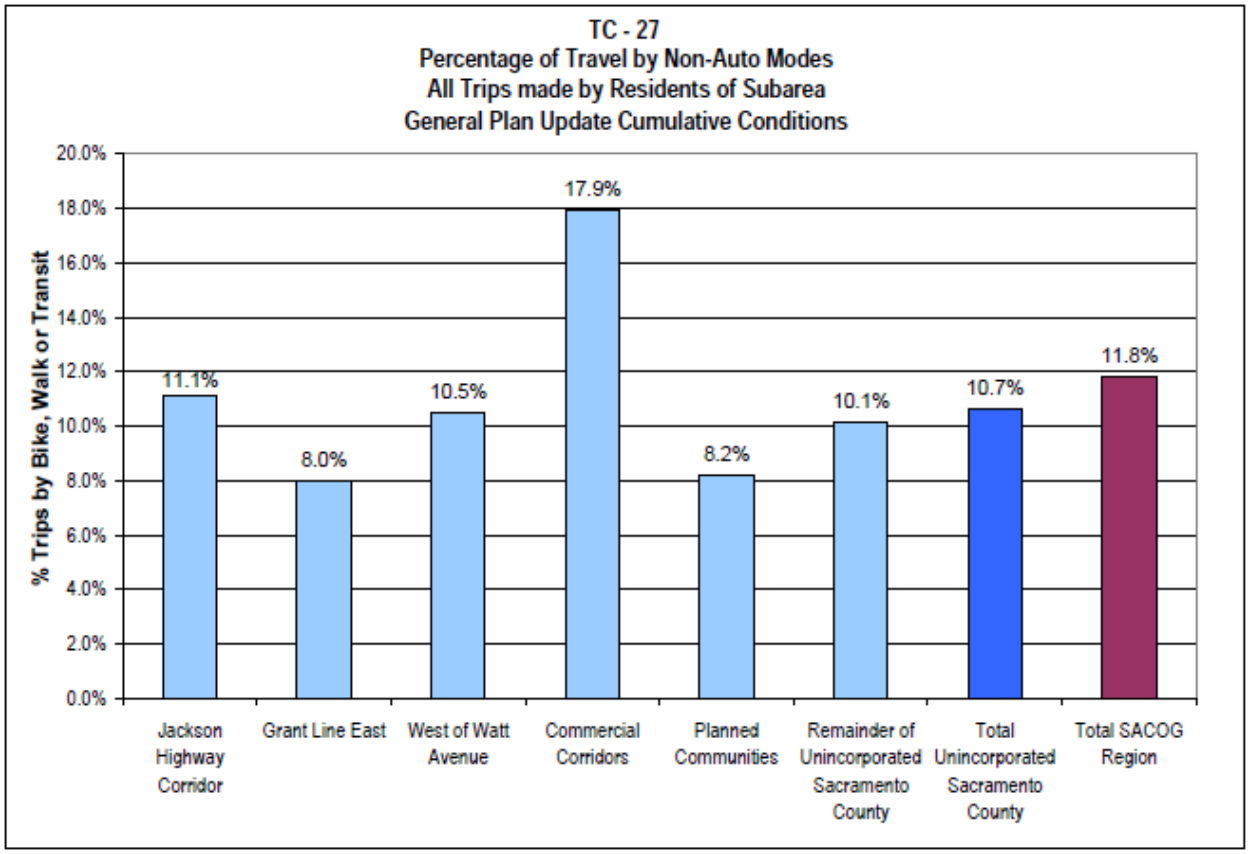
RESULTS OF THE SACSIM SMART GROWTH SENSITIVITY ANALYSIS

The smart growth sensitivity analysis focuses on differences between the smart growth areas of the General Plan Update and other areas of the unincorporated County. Key results that influence both congestion and air quality issues are mode choice and VMT per household, per day.

TRAVEL BY NON-AUTO MODES

Plate TC-27 presents the percentage of travel by non-auto modes (walk, bike, and transit) estimated to be made by residents of various subareas of the County. At 17.9 percent, the Commercial Corridors exhibit the highest travel by non-auto modes of the chosen subareas. The Jackson Highway Corridor and West of Watt Avenue growth areas have higher travel by non-auto modes than the existing planned communities do. At 8.0 percent, the Grant Line East area has the lowest travel by non-auto modes of the chosen subareas.

Plate TC-27 % of Travel by Non-Auto Modes – By Growth Strategies



VEHICLE-MILES OF TRAVEL

Plate TC-28 presents the average vehicle-miles of travel (VMT) estimated to be made by residents of various subareas of the County. At 31.3 vehicle-miles of travel per household, the Commercial Corridors exhibit the lowest VMT of the chosen subareas. The Jackson Highway Corridor and West of Watt Avenue growth areas have lower VMT than the existing planned communities. At 49.4 vehicle-miles of travel per household, the Grant Line East area has the highest VMT of the chosen subareas.

MIXED USE

A key factor in Smart Growth is the location of various types of land use in close proximity, rather than separating land uses by type in different districts. For analysis purposes, the following mixed use index was developed:

- Low – Less than 0.1 jobs per household, or greater than 7.7 jobs per household
- Medium – 0.1 to 0.3 jobs per household, or 3.3 to 7.7 jobs per household
- Medium-High – 0.3 to 0.6 jobs per household, or 2.1 to 3.3 jobs per household
- High – 0.6 to 2.1 jobs per household

The entire unincorporated county was stratified by this mixed use index on a parcel level. For each existing and future parcel, the number of jobs within one-quarter mile of each household in the parcel was determined and used to calculate the index. The transportation characteristics of each class of parcels were then evaluated separately in order to ascertain the effects of mixed use on trip-making patterns.

Plate TC-29 illustrates travel by non-auto modes for each mixed use class. Areas with better (higher) mixed use characteristics have substantially greater use of non-auto modes than areas of low mixed use. It is estimated that the highest mixed use category will have 13.4 percent trip-making by non-auto modes for the growth areas and planned communities, compared to only 5.1 percent for the areas of low mixed use.

Plate TC-30 illustrates VMT for each mixed use class. Areas with better (higher) mixed use characteristics have substantially lower VMT than areas of low mixed use. It is estimated that the highest mixed use category will have 37.6 vehicle-miles of travel per household for the growth areas and planned communities, compared to 57.6 vehicle-miles of travel per household for the areas of low mixed use.

Plate TC-28 Average VMT per Household – By Growth Strategies

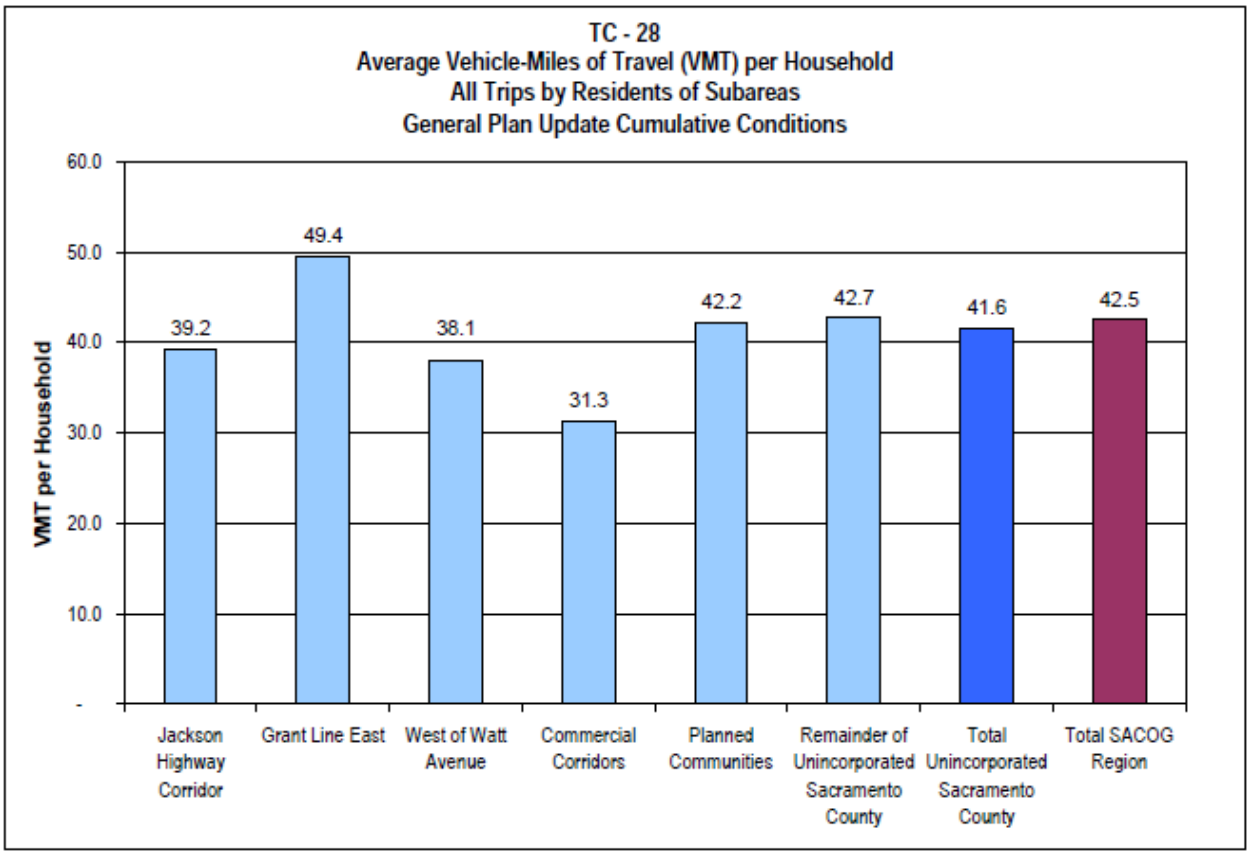


Plate TC-29 % of Travel By Non-Auto Modes – By Intensity of Use Mixes

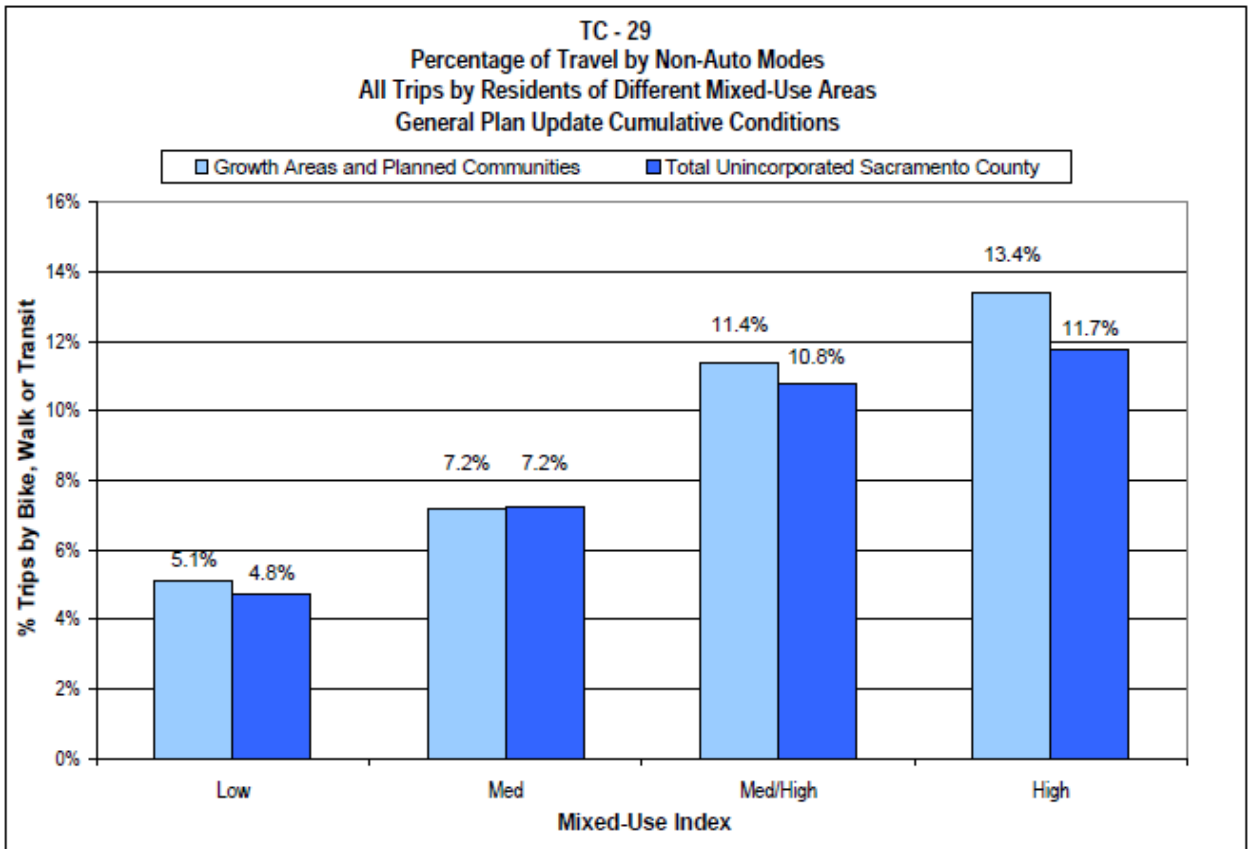
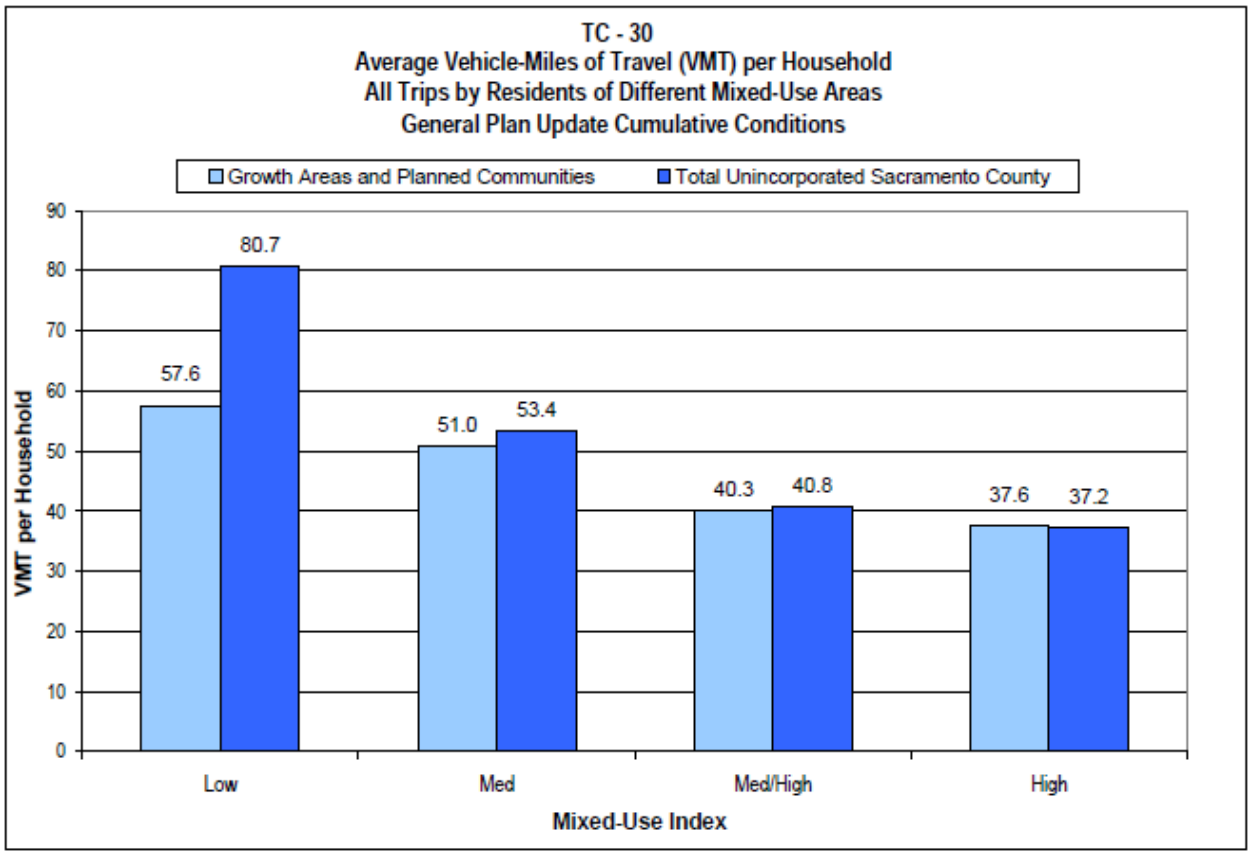


Plate TC-30 Average VMT per Household – By Intensity of Use Mixes



PEDESTRIAN ACCESS

A key factor in Smart Growth is pedestrian access. Pedestrian access refers both to the availability of pedestrian facilities, as well as to the nature of the street system (e.g., grid system, cul-de-sacs). For analysis purposes, the following pedestrian access index was developed:

- Low – Traditional suburban development, cul-de-sacs common
- Medium – Mixed networks
- High – Essentially complete grid network

The entire unincorporated county was stratified by this pedestrian access index on a parcel level. For each existing and future parcel, the pedestrian network within one-half mile of each household in the parcel was evaluated to determine the index. The transportation characteristics of each class of parcels were then evaluated separately in order to ascertain the effects of pedestrian access on trip-making patterns.

Plate TC-31 illustrates travel by non-auto modes for each pedestrian access class. Areas with better (higher) pedestrian access have substantially greater use of non-auto modes than areas of low pedestrian access. It is estimated that the highest pedestrian access category will have 17.9 percent trip-making by non-auto modes for the growth areas and planned communities, compared to only 8.1 percent for the areas of low pedestrian access.

Plate TC-32 illustrates VMT for each pedestrian access class. Areas with better (higher) pedestrian access have substantially lower VMT than areas of low pedestrian access. It is estimated that the highest pedestrian access category will have 31.7 vehicle-miles of travel per household for the growth areas and planned communities, compared to 46.3 vehicle-miles of travel per household for the areas of low pedestrian access.

SCHOOL ACCESS

A key factor in Smart Growth is school access. School access refers to having schools located close to residences. For analysis purposes, the following school access index was developed:

- Low – Greater than three miles to the nearest school
- Medium – Greater than one mile and less than three miles to the nearest school
- Medium-High – Greater than one-half mile and less than one mile to the nearest school
- High – Less than one-half mile to the nearest school

The entire unincorporated county was stratified by this school access index on a parcel level. For each existing and future parcel, the nearest schools were located to determine the index. The transportation characteristics of each class of parcels were then evaluated separately in order to ascertain the effects of school access on trip-making patterns.

Plate TC-33 illustrates travel by non-auto modes for each school access class. Areas with better (higher) school access have substantially greater use of non-auto modes than areas of low school access. It is estimated that the highest school access category will have 12.3 percent trip-making by non-auto modes for the growth areas and planned communities, compared to only 7.1 percent for the areas of medium school access.

Plate TC-34 illustrates VMT for each school access class. Areas with better (higher) school access have substantially lower VMT than areas of low school access. It is estimated that the highest school access category will have 39.9 vehicle-miles of travel per household for the growth areas and planned communities, compared to 47.5 vehicle-miles of travel per household for the areas of medium school access.

Plate TC-31 % of Travel By Non-Auto Modes – By Pedestrian Access Index

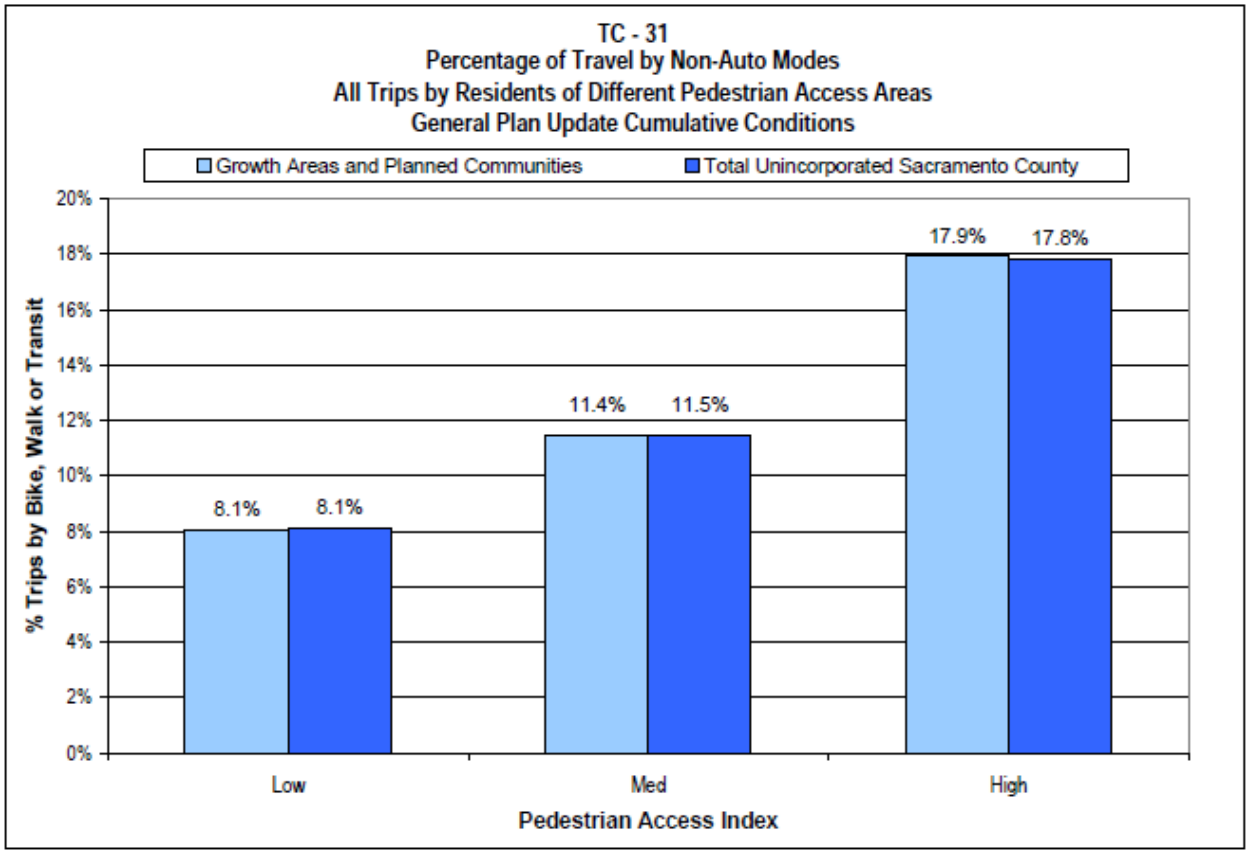


Plate TC-32 Average VMT per Household – By Pedestrian Access Index

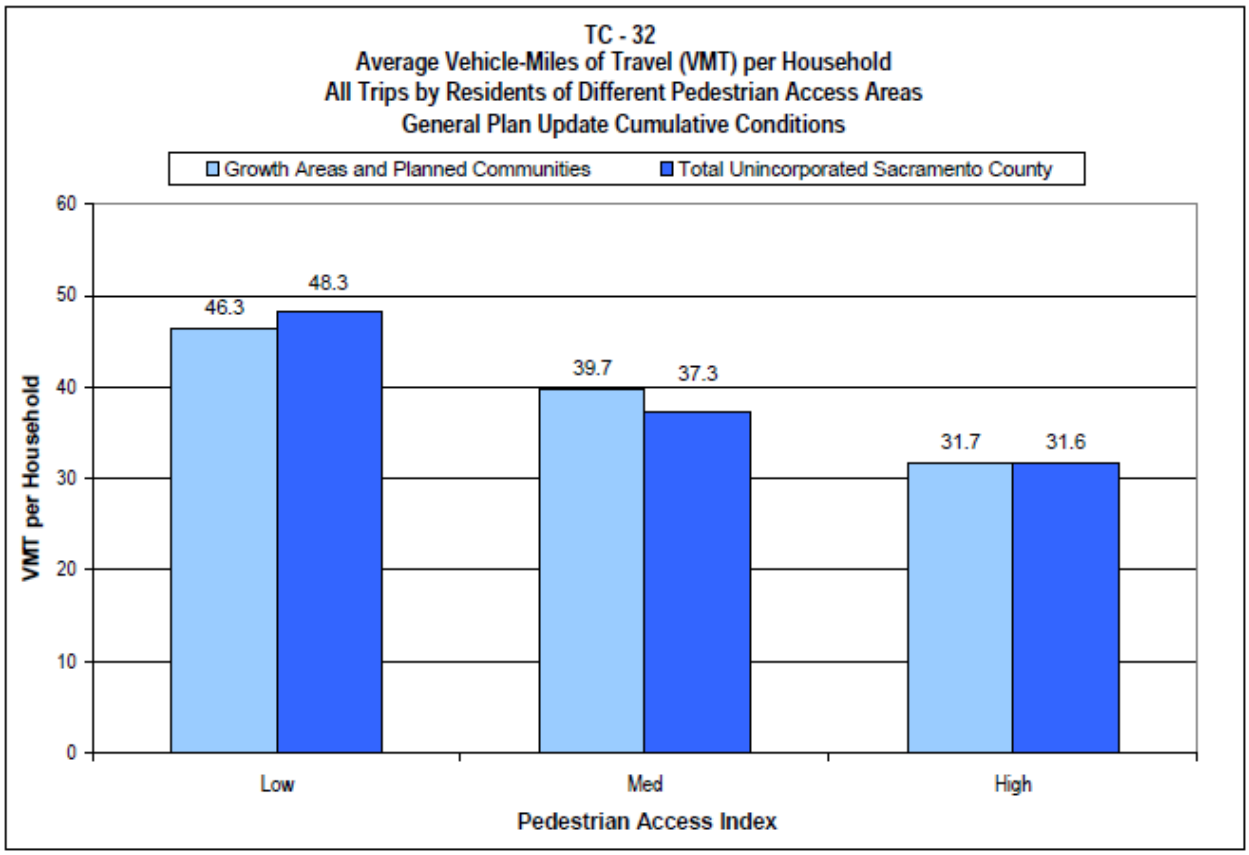


Plate TC-33 % of Travel By Non-Auto Modes – By School Access Index

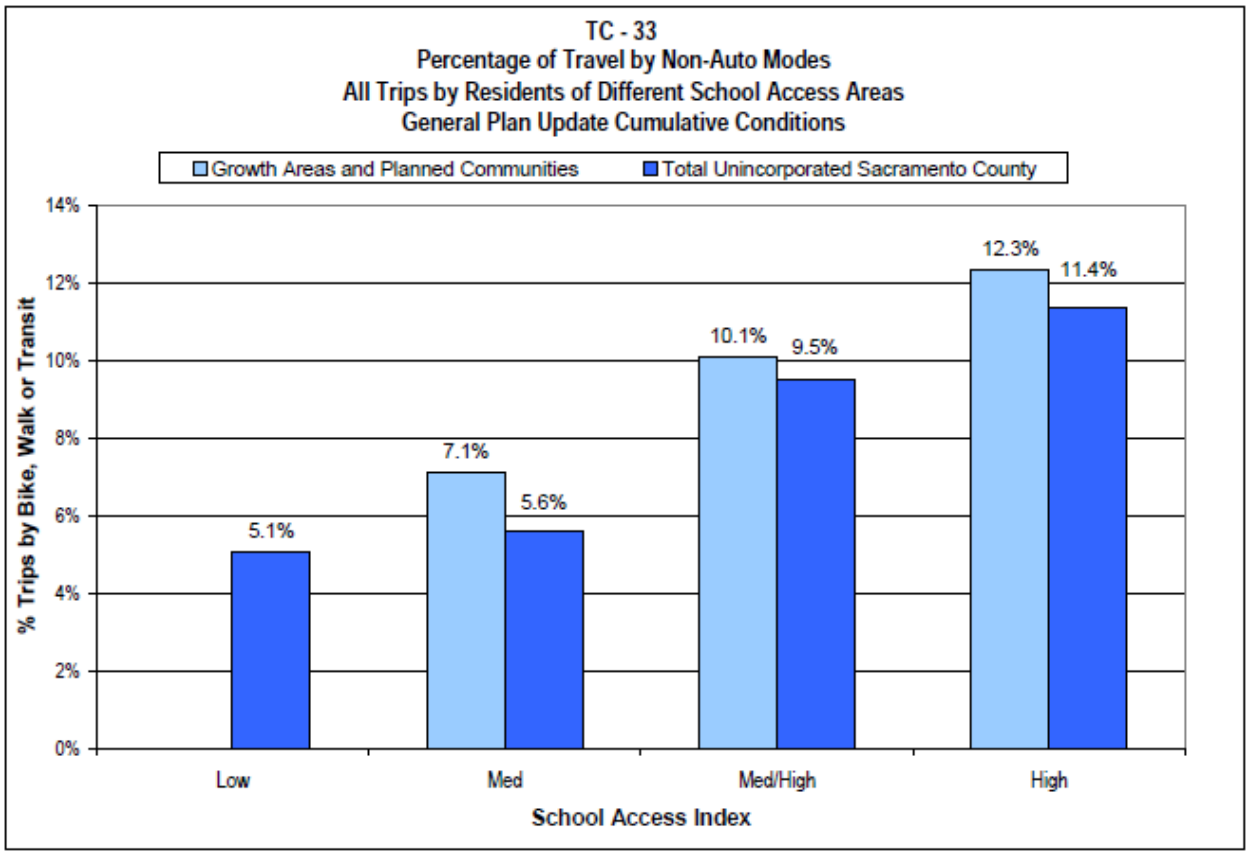
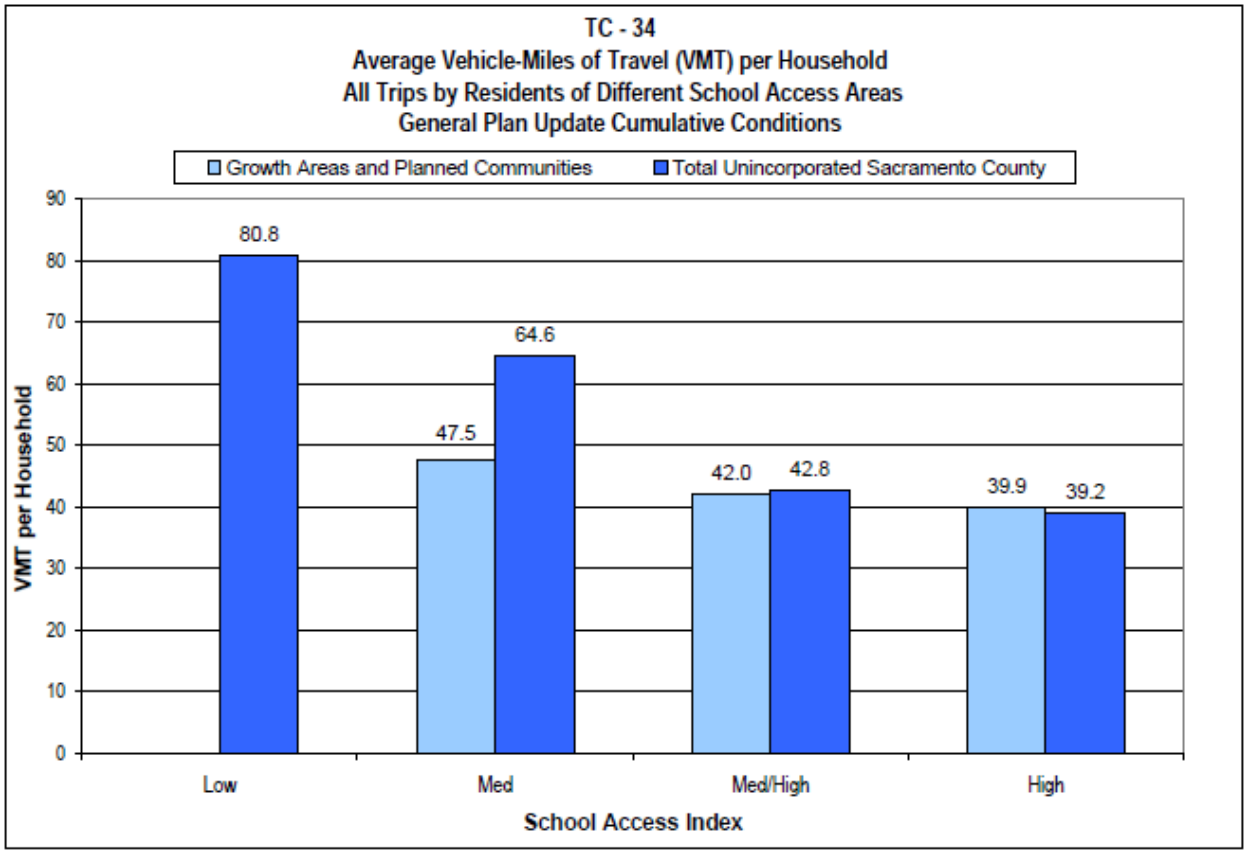


Plate TC-34 Average VMT per Household – By School Access Index



TRANSIT ACCESS

A key factor in Smart Growth is transit access. Transit access refers both to the location of transit facilities, as well as to the type of service (e.g., LRT, BRT, local bus). For analysis purposes, the following transit access index was developed:

- Low – Distance to LRT is greater than one-mile, and BRT/bus is greater than one-half mile
- Medium – Distance to LRT is greater than one-mile, and BRT/bus is less than one-half mile
- High – Distance to LRT is less than one-mile.

The entire unincorporated county was stratified by this transit access index on a parcel level. For each existing and future parcel, the transit network was evaluated to determine the index. The transportation characteristics of each class of parcels were then evaluated separately in order to ascertain the effects of transit access on trip-making patterns.

Plate TC-35 illustrates travel by non-auto modes for each transit access class. Areas with better (higher) transit access have substantially greater use of non-auto modes than areas of low transit access. It is estimated that the highest transit access category will have 18.3 percent trip-making by non-auto modes for the growth areas and planned communities, compared to only 8.1 percent for the areas of low transit access.

Plate TC-36 illustrates VMT for each transit access class. Areas with better (higher) transit access have substantially lower VMT than areas of low transit access. It is estimated that the highest transit access category will have 31.3 vehicle-miles of travel per household for the growth areas and planned communities, compared to 46.8 vehicle-miles of travel per household for the areas of low pedestrian access.

Plate TC-35 % of Travel by Non-Auto Modes – By Transit Access Index

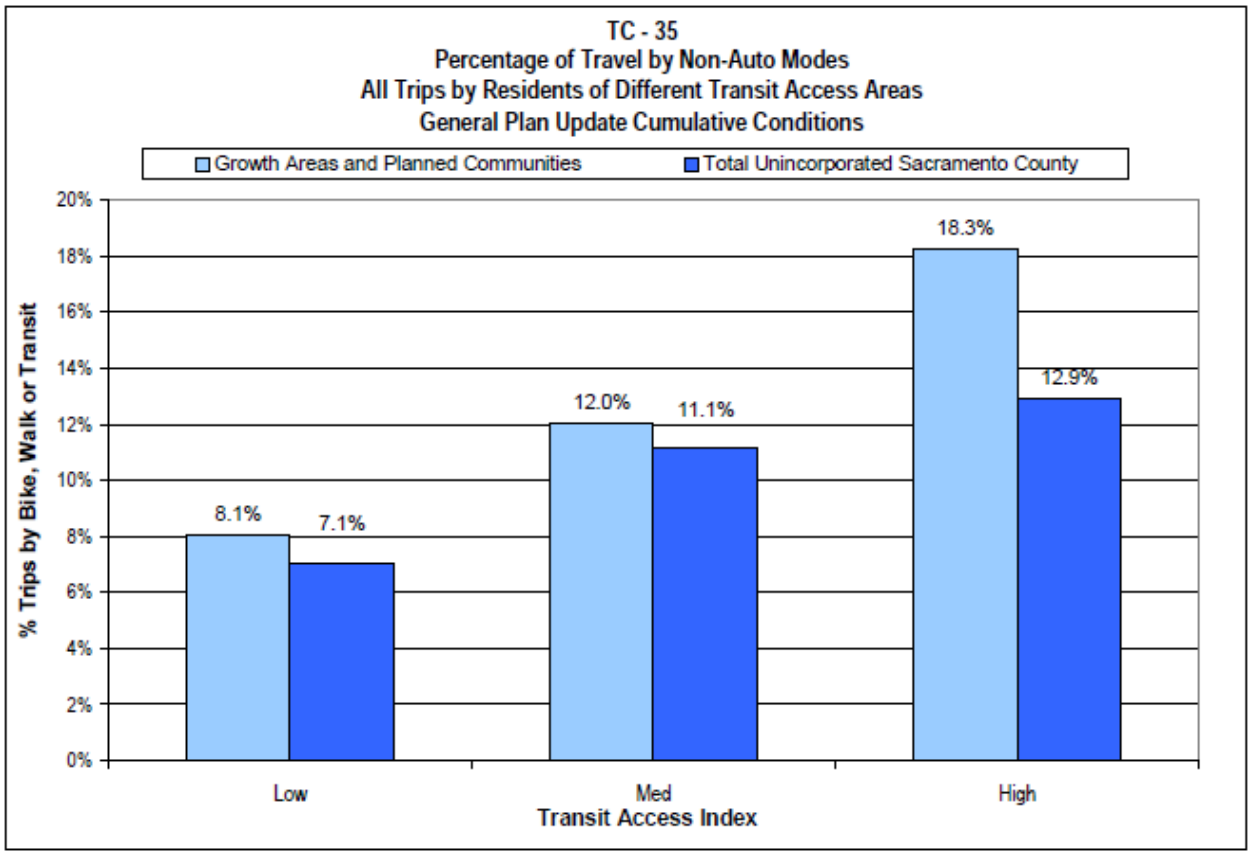
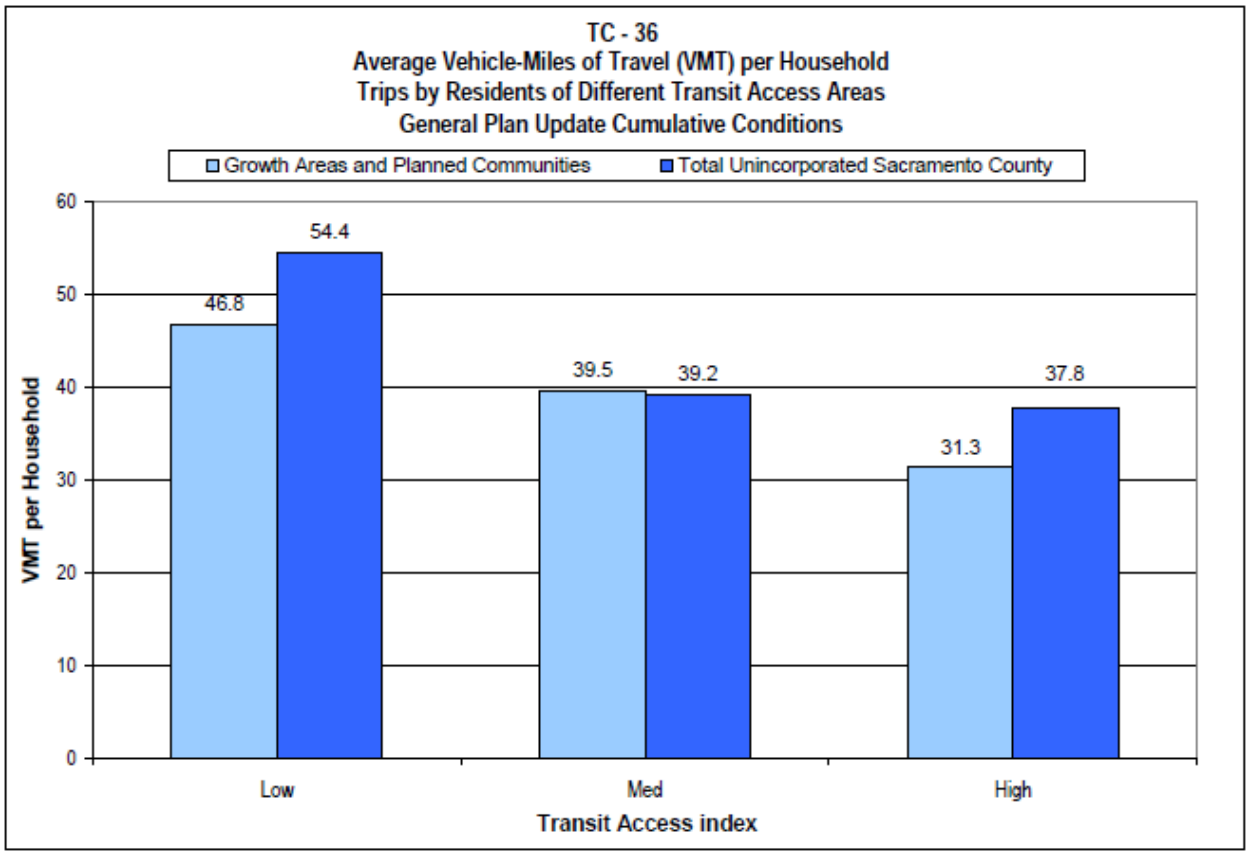


Plate TC-36 Average VMT per Household – By Transit Access Index



DENSITY

A key factor in Smart Growth is density. For analysis purposes, the following density index was developed:

- Low – Number of jobs plus number of households is less than 5 per acre.
- Medium – Number of jobs plus number of households is greater than 5 per acre and less than 10 per acre.
- .Medium-High – Number of jobs plus number of households is greater than 10 per acre and less than 20 per acre.
- High – Number of jobs plus number of households is greater than 20 per acre.

The entire unincorporated county was stratified by this transit access index on a parcel level. For each existing and future parcel, the density was calculated to determine the index. The transportation characteristics of each class of parcels were then evaluated separately in order to ascertain the effects of density on trip-making patterns.

Plate TC-37 illustrates travel by non-auto modes for each density class. Areas with better (higher) density have substantially greater use of non-auto modes than areas of low density. It is estimated that the highest density category will have 15.8 percent trip-making by non-auto modes for the growth areas and planned communities, compared to only 7.5 percent for the areas of low transit access.

Plate TC-38 illustrates VMT for each density class. Areas with better (higher) density have substantially lower VMT than areas of low transit access. It is estimated that the highest density category will have 35.4 vehicle-miles of travel per household for the growth areas and planned communities, compared to 48.0 vehicle-miles of travel per household for the areas of low density.

Plate TC-37 % of Travel by Non-Auto Modes – By Density

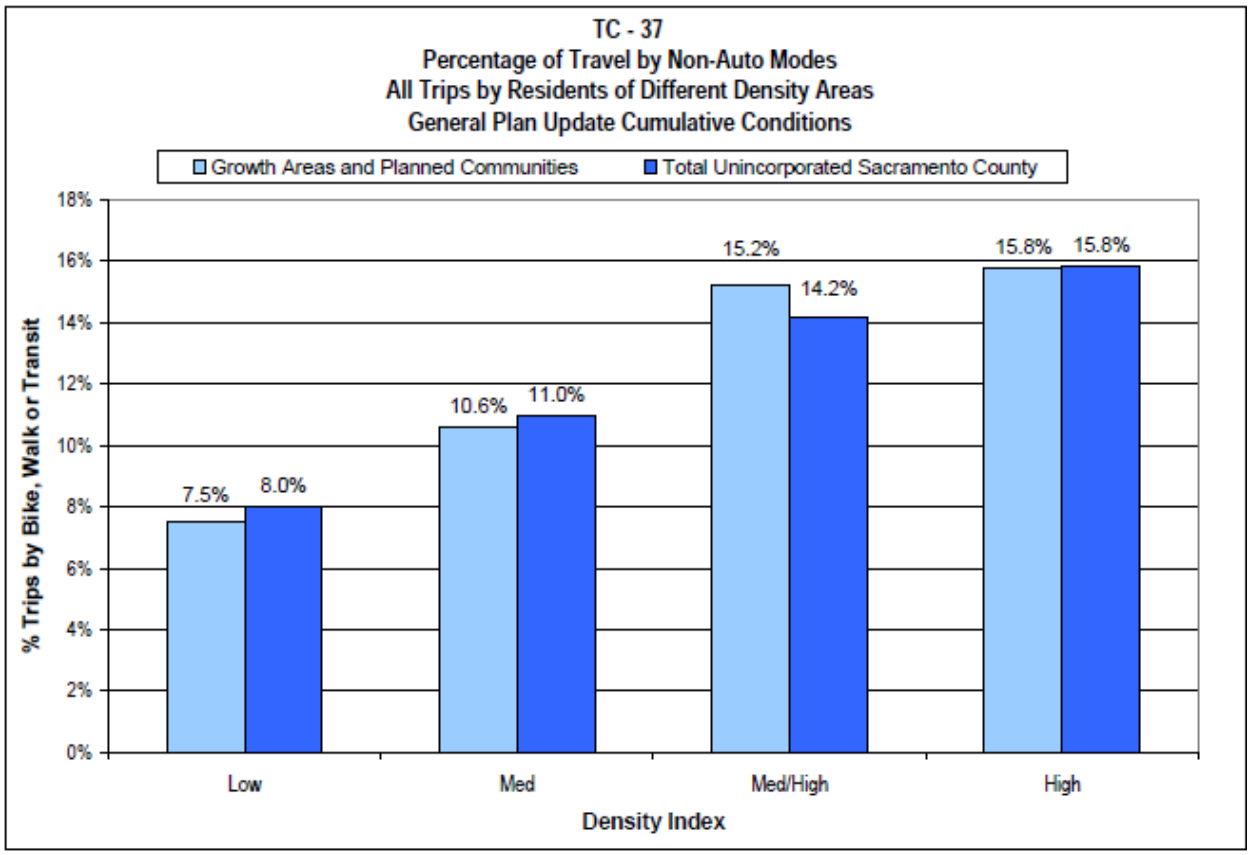
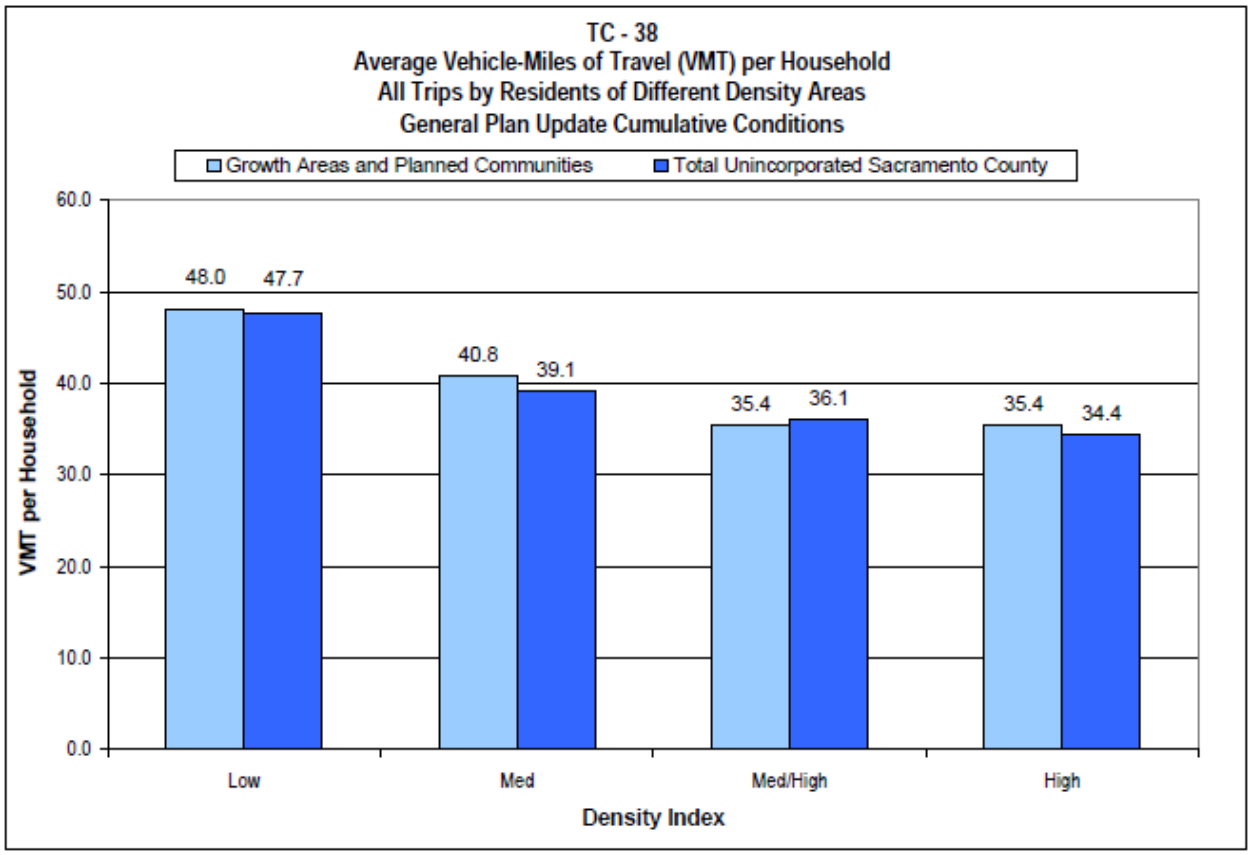


Plate TC-38 Average VMT per Household – By Density



SMART GROWTH PERFORMANCE INDICES

Table TC-12 summarizes the distribution of areas within the unincorporated county by the smart growth performance indices (density, transit access, school access, pedestrian access, and mixed use) described above. The table shows the proportion of land use within the unincorporated county that have low, medium, and high smart growth characteristics when measured independently by index. Within the new growth areas, 6 percent ranks high on density, 9 percent ranks high on transit access, 66 percent ranks high on school access, 35 percent ranks high on pedestrian access, and 46 percent ranks high on mixed use. For the total unincorporated county, 3 percent ranks high on density, 11 percent ranks high on transit access, 70 percent ranks high on school access, 10 percent ranks high on pedestrian access, and 44 percent ranks high on mixed use.

Table TC-12
Percent of Households Stratified by Smart Growth Performance Indices
Cumulative Development Conditions of the Proposed Project

Performance Index	New Growth Areas	New Growth Areas and Planned Communities	Total Unincorporated Sacramento County
Density			
Low	23%	27%	37%
Medium	30%	36%	38%
Medium / High	41%	32%	22%
High	6%	5%	3%
Transit Access			
Low	22%	23%	17%
Medium	69%	70%	72%
High	9%	7%	11%
School Access			
Low	0%	0%	2%
Medium	2%	2%	2%
Medium / High	33%	34%	25%
High	65%	64%	71%
Pedestrian Access			
Low	32%	47%	44%
Medium	33%	27%	46%
High	35%	26%	10%
Mixed Use			
Low	0%	0%	3%
Medium	4%	13%	10%
Medium / High	50%	52%	43%
High	46%	35%	44%
Source: DKS Associates, 2009.			

OBSERVATIONS OF THE TRAVEL-REDUCTION EFFECTS OF SMART GROWTH

The travel-reduction effects of smart growth have been reported in numerous studies and presentations. Many of these results are based on observations for specific smart growth developments. In a study of San Francisco Bay Area communities, a doubling in residential density was associated with twenty to thirty percent less VMT per household.[2] A study of mixed use developments in Florida indicated that they generated between 2.3 and 2.8 vehicle hours of travel per day compared to 3.4 vehicle hours per day for auto-oriented suburban communities.[3] A study in the Seattle area found that residents of neighborhoods with mixed land uses and well-connected streets traveled 26 percent fewer vehicle miles than residents of neighborhoods that were more dispersed and less connected.[4] These reports of smart growth benefits are useful for assessment of potential within a development, but generally do not reflect the cumulative effect within a larger area. They also tend to be reports of "best results" from exemplary projects rather than an average of results.

Other reports of smart growth benefits are based on cross-sectional analysis of regional data from a combination of the travel model database and a household survey. Research on development patterns and densities in the Seattle metropolitan areas found that work-trips by automobile varied as much as fourteen percent when density and mix of use were varied.[5] In research for the Sacramento region, home-based work trips were found to have an elasticity with respect to net residential density of -0.238: a ten percent increase in density would lead to a decrease in VMT of 2.38 percent.[6] These efforts are useful for identifying differences between the travel characteristics of different areas, but do not control for factors that are often correlated with socioeconomic characteristics, or lifestyle characteristics that are correlated with the smart growth land use characteristics.

Still other research reports are based on analysis of possible future land use options using travel models or supplemental smart-growth analysis tools. SACOG used such

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[2] Holtzclaw, John, "Explaining Urban Density and Transit Impacts on Auto Use," Presented by the National Resources Defense Council and the Sierra Club to the California Energy Resources Conservation and Development Commission, April 19, 1990.

[3] Ewing, Reid, Padma Haliyur, and William Page, "Getting Around in a traditional City, a Suburban PUD and Everything In-Between," Transportation Research Board Annual Meeting, Washington D.C., January 1994.

[4] Lawrence Frank and Company, Inc. *A Study of Land Use, Transportation, Air Quality, and Health (LUTAQH) in King County, WA.* 2005. Available online at http://www.metrokc.gov/kcdot/tp/ORTP/LUTAQH/

[5] DKS Associates, *Modeling TDM Effectiveness: Enhancements to TEEM and Case Studies for the I-405 Corridor,* Prepared for the Washington State Department of Transportation, Seattle, WA, December 2004.

[6] Hubbard, Don, and Gerald Walters, Fehr & Peers, "Making Travel Models Sensitive to Smart-Growth Characteristics," prepared for the ITE District 6 Conference, Honolulu, HI. July 2006.

an approach to evaluate a smart growth strategy for the region that featured more housing choice, concentration of growth in existing urban areas and jobs-housing balance in subareas. In comparison to a baseline forecast for 2050 that assumed a continuation of existing trends, the smart-growth scenario reduced VMT per household from 47.2 per weekday to 34.9. The share of total travel by automobile decreased from 93.7% to 83.9% and the total number of transit trips increased from 147,000 per weekday to 629,000[7]. Modeling-based efforts such as that by SACOG provide the ability to evaluate the potential of smart-growth strategies to reduce vehicle trips and VMT within a broad area, but depend on the use of a model with appropriate smart-growth sensitivity.

Caltrans District 6 in partnership with local and regional agencies sponsored the San Joaquin Valley Growth Response Study to improve the capability of the agencies in the Valley to evaluate smart growth options. After incorporating the 4D Elasticities into the regional modeling process, future year growth scenarios were evaluated for the Greater Fresno area. When compared to a market-driven baseline forecast for 2034, a scenario with new development concentrated on existing transportation corridors produced 4.1% fewer vehicle trips, 3.6% less VMT and 45% higher transit mode share.[8] A survey of regional planning efforts around the US found that the maximum impact of smart Growth on VMT ranged from 1.1% to 17.1% reduction as indicated in Table TC-13.[9]

[7] Web site for Blueprint Transportation Study, http://www.sacregionblueprint.org/sacregionblueprint/the_project/stats/preferred%20scenario/DraftPS-BC%20regional%20summary%20sheet.pdf

[8] San Joaquin Valley Growth Response Study Project Web Site http://www.fresno.gov/NR/rdonlyres/4E25B6B5-47C4-47E1-A1C9-A6D60E98147E/0/sjvphase3.pdf

[9] Ang-Olson, Jeffrey, "The Low Carb Toolbox: Reducing VMT" presentation for Cutting Carbs: A Professional Development Workshop for Transportation Professionals on Reducing Greenhouse Gas Emissions, Portland, Oregon, December 3, 2008, available at: http://www.oeconline.org/our-work/climate/transportation/cutting-carbs-pdfs/Low%20Carb%20Toolbox%20Ang-Olson.pdf

Table TC-13
Regional Assessment of Smart Growth Strategies for VMT Reduction

Case Study Name	Maximum VMT Impact	Study Year	Forecast Year
Sacramento Blueprint	-31.7%	2004	2050
Columbus Regional Growth Strategy	-17.1%	2004	2030
Smart Growth Twin Cities	-17.0%	2002	2030
PSRC (Seattle) Vision 2040	-11.5%	2007	2040
Atlanta Northern Sub-Area	-7.3%	2003	2025
LUTRAQ Study (Portland, Oregon)	-6.4%	1997	2020
Denver Metro Vision 2035	-6.2%	2007	2035
San Francisco Bay Area Regional	-4.6%	2002	2020
Envision Utah	-3.0%	1999	2020
Albany, New York, New Visions	-2.8%	1995	2015
DVRPC (Philadelphia) Regional	-1.1%	2003	2030
Source: DKS Associates, 2009.			

RECOMMENDATIONS

The automobile traffic that results from the increase in holding capacity of the proposed General Plan (both housing units and employment) results in extensive LOS deficiencies, delay, and congestion throughout the unincorporated County and other jurisdictions, affecting the mobility of existing and future residents, employees, and visitors. This growth in automobile traffic, delay, and congestion also results in other environmental effects, such as air quality degradation. To mitigate these effects to the greatest extent possible, it is imperative that the County diligently implement smart growth principles through stringent guidelines and project review.

The County has initiated numerous programs to implement a smart-growth orientation including the following:

1. Committing to planning for new development that is more compact, transit oriented, and features a mix of uses in order to implement the Blueprint project's principles and the regional community's desired growth pattern

2. Providing the infrastructure and conditions necessary to encourage walking and biking as a means of travel, as well as to support enhanced transit service

3. Targeting assets in existing communities, including vacant and underutilized parcels, old or historic structures ready for reuse or rehabilitation, and reinvestment in main streets and commercial corridors

4. Designation of an Urban Services Boundary to limit the development of rural and agricultural areas

5. Adoption of Transit Oriented Design Guidelines to support development patterns that encourage use of transit

To mitigate the Project impacts on traffic and air quality, the County should strengthen policies and standards included in the proposed General Plan to increase the probability and magnitude of success of smart growth. The benefits of smart growth can extend beyond the new growth areas and infill corridors. Through the appropriate location of new land use and the expansion of walkways, bikeways, and transit services, the transportation characteristics of existing development can also be modified to reduce cumulative LOS, delay, congestion, and mobility impacts. The adoption of smart-growth principles can have a synergistic effort. Producing the densities and mix of land uses that support the use of transit and non-motorized modes creates the demand for better transit service and facilities for non-motorized travel. Providing better transit services and facilities for non-motorized modes increases the demand for these modes, but also increases the attractiveness and demand for smart-growth development. As a result of this smart-growth analysis, mitigation measure **TC-6** is recommended to reduce Project impacts on the transportation system and on air quality.