

3 AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES, AND MITIGATION MEASURES

3.0 APPROACH TO THE ENVIRONMENTAL ANALYSIS AND THE CUMULATIVE CONTEXT

3.0.1 APPROACH TO THE ENVIRONMENTAL ANALYSIS

INTRODUCTION

The California Environmental Quality Act (CEQA) Guidelines (State CEQA Guidelines) require an environmental impact report (EIR) to include an evaluation of potentially significant effects on the physical environment associated with the project and to identify feasible mitigation for those effects. All phases of the project, including planning, acquisition, development, and operation, are evaluated in the analysis. California Code of Regulations (CCR) Title 14, Section 15126.2 (14 CCR Section 15126.2) states that:

An EIR shall identify and focus on the significant environmental effects of the proposed project. In assessing the impact of a proposed project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced. Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. The discussion should include relevant specifics of the area, the resources involved, physical changes, alterations to ecological systems, and changes induced in population distribution, population concentration, and human use of the land (including commercial and residential development), health and safety problems caused by the physical changes, and other aspects of the resource base such as water, historical resources, scenic quality, and public services. The EIR shall also analyze any significant environmental effects the project might cause by bringing development and people into the area affected.

An EIR must also discuss inconsistencies between the proposed project and applicable general plans and regional plans (14 CCR Section 15125[d]).

According to 14 CCR Section 15126.4, an EIR must describe potentially feasible measures that could avoid or minimize significant adverse impacts (CCR Section 15126.4[a][1]) and feasible and practicable measures that are fully enforceable through permit conditions, agreements, or other legally binding process (CCR Section 15126.4[a][2]). Mitigation measures are not required for impacts that are found to be less than significant.

The Council on Environmental Quality (CEQ) regulations for implementing the National Environmental Policy Act (NEPA) (the “NEPA regulations”) specify that a Federal agency preparing an environmental impact statement (EIS) must consider the effects of the Proposed Action and alternatives under consideration on the environment; these include effects on ecological, aesthetic, and historical and cultural resources, and economic, social, and health effects. An EIS must also discuss possible conflicts with the objectives of Federal, state, regional, and local adopted land use plans, policies, or controls for the area concerned; energy requirements and conservation potential; urban quality; the relationship between short-term uses of the environment and long-term productivity; and irreversible or irretrievable commitments of resources. An EIS must identify relevant, reasonable mitigation measures that are not already included in the proposed action or alternatives under consideration that could avoid, minimize, rectify, reduce, eliminate, or compensate for the project’s adverse environmental effects (40 Code of Federal Regulations [CFR] 1502.14, 1502.16, 1508.8).

This draft document is known as a draft EIR/EIS (DEIR/DEIS). The following discussion introduces Chapter 3 of this EIR/EIS, which addresses the affected environment, environmental consequences, and mitigation measures for each environmental issue area, and explains the organization and general assumptions used in the analysis. Specific assumptions and methodology and significance criteria (thresholds of significance) used in the analysis and determination of significance of impacts are contained in each individual technical section.

SECTION CONTENTS AND DEFINITION OF TERMS

For ease of reference and to prevent confusion, the environmental setting, impacts, and mitigation measures required by CEQA have been prepared largely using NEPA terminology (e.g., affected environment, environmental consequences, and mitigation measures) but all sections comply with CEQA and NEPA regulations. The terms “Effect” and “Impact” are synonymous as used herein (40 CFR 1508.8). This chapter is organized by issue area, generally corresponding to topics in the CEQA Environmental Checklist (State CEQA Guidelines Appendix G, as amended), with the addition of “Environmental Justice,” which is required in the NEPA analysis pursuant to Presidential Executive Order 12898. As described below, each section follows the same format.

Affected Environment

The “Affected Environment” subsection provides an overview of the baseline physical environmental conditions (i.e., the environmental baseline) on the project study sites, and surrounding areas as appropriate, in accordance with NEPA regulations (40 CFR 1502.10) and 14 CCR Section 15125, at the time the notice of preparation (NOP) was published on July 14, 2006. However, the City and the USACE acknowledge that due to the recent economic downturn, the Rancho Cordova area and the region as a whole have experienced a substantial slowdown in the rate of buildout of all types of projects. Full buildout of the SunCreek Specific Plan is expected to take 20 years.

This approach is consistent with the State CEQA Guidelines (14 CCR Section 15125). NEPA requires a description of the Affected Environment, which is the environment of the area(s) to be affected or created by the alternatives under consideration. The baseline physical conditions required under CEQA will ensure compliance with the NEPA requirement for Affected Environment. This approach also has the virtue of avoiding the potential confusion that might result from using different baselines for CEQA and NEPA purposes.

Regulatory Framework

The “Regulatory Framework” subsection identifies the plans, policies, laws, regulations, and ordinances that are relevant to each topical section and describes required authorizations, permits, and other approvals necessary to implement the project. As noted above, the EIR/EIS needs to address possible conflicts between the Proposed Project or alternatives under consideration and the objectives of Federal, state, regional, or local formally adopted land use plans, policies, or controls for the area.

Conflicts with any Federal, state, or local formally adopted land use plans, policies, or controls for the area are considered appropriate topics under NEPA and must be addressed in the EIS (40 CFR 1502.16[c]). The City has analyzed the project for consistency with the policies of the adopted City General Plan for the action alternatives. According to State CEQA Guidelines CCR Section 15125(d), an EIR “shall discuss any inconsistencies between the proposed project and applicable general plans and regional plans.” Although the EIR/EIS discusses inconsistencies with applicable plans and policies for several jurisdictions, the final authority for interpreting policy statements and determining the project’s consistency with adopted policies rests with the governing body of the jurisdiction in question. Where inconsistencies do occur, they are addressed as topical impacts within each applicable issue area in Chapter 3. For some issue areas there may not be any applicable policies of a particular jurisdiction’s general plan based on the type of improvements or changes proposed within that jurisdiction. Where this is the case, the “Regulatory Framework” section includes a note that there are no applicable policies from this jurisdiction’s general plan.

Environmental Consequences and Mitigation Measures

The “Environmental Consequences and Mitigation Measures” subsection identifies the impacts of the project on the existing human and natural environment, in accordance with the State CEQA Guidelines (CCR Sections 15125 and 15143) and NEPA regulations (40 CFR 1502.16). The following discussions are included in this subsection.

- ▶ **Thresholds of Significance** provide criteria established by the lead agencies to define at what level an impact would be considered significant in accordance with CEQA. Thresholds may be quantitative or qualitative; they may be based on examples found in CEQA regulations or the State CEQA Guidelines; scientific and factual data relative to the lead agency’s jurisdiction; legislative or regulatory performance standards of Federal, state, regional, or local agencies relevant to the impact analysis; City goals, objectives, and policies (e.g., City General Plan); views of the public in the affected area; the policy/regulatory environment of affected jurisdictions; or other factors. Generally, however, the thresholds of significance used are derived from Appendix G of the State CEQA Guidelines, as amended; a Federal agency’s NEPA regulations, where defined; factual or scientific information and data; and regulatory standards of Federal, state, regional, and local agencies. These thresholds also include the factors taken into account under NEPA to determine the significance of the action in terms of the context and the intensity of its effects.
- ▶ **Analysis Methodology** describes the methods, process, procedures, and/or assumptions used to formulate and conduct the impact analysis.
- ▶ **Impact Analysis** provides an assessment of the potential impacts of the project (including off-site infrastructure and roadway improvements) and alternatives on the affected environment. This assessment also specifies why impacts are found to be significant and unavoidable, significant or potentially significant, or less than significant, or why there is no environmental impact. Some of the potential impacts that may result from implementation of the Proposed Project and the other action alternatives may be temporary and short-term effects resulting from construction activities. However, impacts related to modification and loss of habitats, including fill of waters of the U.S.; and disturbance of cultural resources would be permanent.
- ▶ **Project impacts** are organized into three categories: direct, indirect, and cumulative impacts. Direct impacts are those that would be caused by the action and would occur at the same time and place. Indirect effects are reasonably foreseeable consequences that may occur at a later time, or at a distance that is removed from the project site. Examples of indirect effects include growth-inducing effects and other effects related to changes in land use patterns, population density, or growth rate, and related effects on the physical environment.

The impacts are listed numerically and sequentially throughout each section. For example, impacts in Section 3.3 are identified as 3.3-1, 3.3-2, and so on and are identified by the alternative that is applicable to the impact. For example, “NP” refers to the No Project Alternative, “NCP” refers to the No U.S. Army Corps of Engineers (USACE) Permit Alternative, “BIM” refers to the Biological Impact Minimization Alternative, “CS” refers to the Conceptual Strategy Alternative, and “ID” refers to the Increased Development Alternative. An impact statement precedes the discussion of each impact and provides a summary of the impact. The discussion that follows the impact statement includes the evidence on which a conclusion is based regarding the level of impact. Impact conclusions are made using the significance criteria described above and include consideration of the “context” of the action and the “intensity” (severity) of its effects in accordance with NEPA guidance (40 CFR 1508.27).

The level of impact of the Proposed Project and the other alternatives under consideration is determined by comparing estimated effects with baseline conditions. Under CEQA, the environmental setting as it exists at the time the NOP is published (as defined above and as described in the “Affected Environment” sections of Chapter 3) normally represents baseline physical conditions. Under NEPA, the No Action Alternative (expected future conditions without the project) is the baseline against which the effects of a Proposed Action

and action alternatives are compared. Although, in some instances, a NEPA “no action” scenario can involve significant anticipated changes to existing conditions based on actions taken by nonfederal parties, here the NEPA no action scenario is the same as the CEQA no project scenario. This approach, being conservative from an impact assessment standpoint, is permissible under NEPA and avoids any confusion that might be caused if this document used separate CEQA and NEPA baselines.

- ▶ **Mitigation measures** to avoid, minimize, rectify, reduce, or compensate for significant and potentially significant impacts of the project, in accordance with the State CEQA Guidelines (14 CCR Sections 15370, 15002[a][3], 15021[a][2], and 15091[a][1]) and with NEPA regulations (40 CFR Part 1508, Section 20), where feasible, are recommended for each significant impact. Each mitigation measure is identified numerically to correspond with the number of the impact being reduced by the measure. For example, Impact 3.3-1 would be mitigated by Mitigation Measure 3.3-1. Where no mitigation is required because the impact conclusion is “less than significant,” then the statement “no mitigation measures are required” is provided. Where no feasible mitigation is available to reduce impacts to a less-than-significant level, the impacts are identified as remaining “significant and unavoidable” and the statement “no mitigation measures are available” is provided with an explanation. (In some cases, all feasible and available mitigation measures are not sufficient to reduce an impact to a “less-than-significant” level. When this occurs, the impacts are described as remaining “significant and unavoidable.”) Significant and unavoidable impacts are also summarized in Chapter 4, “Other Statutory Requirements,” under the subsection “Significant and Unavoidable Adverse Impacts.”
- ▶ The **Residual Significant Impacts** subsection identifies any significant impacts that would still be significant even after implementation of the mitigation measures.
- ▶ The **Cumulative Impacts** subsection discusses impacts of the project that would result from the incremental impact of the action when compounded with other past, present, and reasonably foreseeable future actions. More information related to cumulative impacts is described below in Section 3.0.5, “Cumulative Context.”

TERMINOLOGY USED TO DESCRIBE IMPACTS

Impact Levels

The EIR/EIS for this project uses the following terminology to denote the significance of environmental impacts of the project:

- ▶ **No impact** indicates that the construction, operation, and maintenance of the project would not have any direct or indirect effects on the environment. It means no change from existing conditions. This impact level does not need mitigation.
- ▶ A **less-than-significant impact** is one that would not result in a substantial or potentially substantial adverse change in the physical environment. This impact level does not require mitigation, even if feasible, under CEQA.
- ▶ A **significant impact** is defined by CEQA Section 21068 as one that would cause “a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project.” Levels of significance can vary by project, based on the change in the existing physical condition. This EIR/EIS uses the CEQA definition of significant impact because it is more stringent than that of NEPA. Under CEQA, mitigation measures or alternatives to the proposed project must be provided, where feasible, to reduce the magnitude of significant impacts.
- ▶ A **potentially significant impact** is one that, if it were to occur, would be considered a significant impact as described above; however, the occurrence of the impact cannot be immediately determined with certainty. For CEQA purposes, a potentially significant impact is treated as if it were a significant impact.

- ▶ A **significant and unavoidable impact** is one that would result in a substantial or potentially substantial adverse effect on the environment, and that could not be reduced to a less-than-significant level even with any feasible mitigation. Under CEQA, a project with significant and unavoidable impacts could proceed, but the lead agency would be required to prepare a “statement of overriding considerations” in accordance with State CEQA Guidelines CCR Section 15093, explaining why the lead agency would proceed with the project in spite of the potential for significant impacts.
- ▶ A **beneficial impact** is an impact that is considered to cause a positive change or improvement in the environment and for which no mitigation measures are required.
- ▶ An impact may have a level of significance that is too uncertain to be reasonably determined, which would be designated **too speculative for meaningful evaluation**, in accordance with State CEQA Guidelines CCR Section 15145. Where some degree of evidence points to the reasonable potential for a significant effect, the EIR/EIS may explain that a determination of significance is uncertain, but is still assumed to be “potentially significant,” as described above. In other circumstances, after thorough investigation, the determination of significance may still be too speculative to be meaningful. This is an effect for which the degree of significance cannot be determined for specific reasons, such as because aspects of the impact itself are either unpredictable or the severity of consequences cannot be known at this time.

Impact Mechanisms

Mechanisms that could cause impacts are discussed for each issue area. General categories of impact mechanisms are construction of the project and activities related to future operations, as described in Chapter 2, “Alternatives.”

If the project is approved, site work could begin as early as 2012. The environmental analysis focuses on baseline at the time the NOP was published (2006). The project is expected to be completed in by 2032. Project effects fall into the following categories:

- ▶ A **temporary effect** would occur only during construction or demolition activities. The environmental analysis addresses potentially significant impacts from the direct effects of construction at the project site, including but not limited to: demolition of existing structures and buildings, direct effects associated with site development and required on- and off-site infrastructure and roadway improvements, and indirect construction impacts associated with the proposed construction staging areas, fill activities, and construction traffic.
- ▶ A **short-term effect** would last from the time construction ceases to within 3 years following construction.
- ▶ A **long-term effect** would last longer than 3 years following completion of construction. In some cases, a long-term effect could be considered a permanent effect.
- ▶ A **direct effect** is an effect that would be caused by an action and would occur at the same time and place as the action.
- ▶ An **indirect effect** is an effect that would be caused by an action but would occur later in time, or at another location, yet is reasonably foreseeable in the future.

In accordance with California Public Resources Code Section 21081.6(a), the City Council, if it approves the project, will adopt a mitigation monitoring and reporting program (MMRP) at the time that it certifies the EIR. The City Council will also be required to adopt findings identifying each significant effect of the project and the extent to which feasible mitigation measures have been adopted. (California Public Resources Code Section 21081.) USACE will also issue a record of decision (ROD) that will reflect USACE’s final decision, the rationale behind the decision, and a commitment to monitoring and mitigation. According to Section 1505.2 of the NEPA regulations adopted by the CEQ, the ROD must do all of the following:

- (a) State what the decision was.
- (b) Identify all alternatives considered by the agency in reaching its decision, specifying the alternative or alternatives which were considered to be environmentally preferable. An agency may discuss preferences among alternatives based on relevant factors including economic and technical considerations and agency statutory missions. An agency shall identify and discuss all such factors including any essential considerations of national policy which were balanced by the agency in making its decision and state how those considerations entered into its decision.
- (c) State whether all practicable means to avoid or minimize environmental harm from the alternative selected have been adopted, and if not, why they were not. A monitoring and enforcement program shall be adopted and summarized where applicable for any mitigation.

The following terms are also used in the impact analysis:

- ▶ **Construction** applies to activities associated with ground disturbance, construction of new structures and supporting infrastructure and roadways, and the demolition of existing structures and buildings.
- ▶ **No mitigation measures are required** is stated in the discussion of mitigation if the impact is considered minimal or less than significant and does not require mitigation.
- ▶ **No feasible mitigation measures are available** is stated in the discussion of mitigation if the impact is considered significant and unavoidable, and there is no feasible mitigation available to reduce the magnitude of the impact to a less-than-significant level.

MITIGATION MEASURES OUTSIDE LEAD AGENCY JURISDICTION

Improvements in the off-site utility infrastructure would be outside the jurisdiction of the City of Rancho Cordova. These improvements would fall under the jurisdiction of other agencies, such as Sacramento County or the California Department of Transportation (Caltrans). Neither the City of Rancho Cordova nor the project applicants could control the timing or implementation of project components or mitigation measures which would take place outside of the City of Rancho Cordova's jurisdiction. In cases where the City is responsible for implementing mitigation outside of its jurisdiction, the City is also responsible for coordinating with the affected jurisdiction(s) to ensure that the mitigation measures proposed in this EIR/EIS may be implemented as described.

3.0.2 CUMULATIVE CONTEXT

INTRODUCTION TO THE CUMULATIVE ANALYSIS

This EIR/EIS provides an analysis of overall cumulative impacts of the SunCreek Specific Plan project considered along with other past, present, and probable future projects producing related impacts, as required by the State CEQA Guidelines (14 California CCR Section 15130) and "reasonably foreseeable" future projects under NEPA implementing regulations (40 CFR 1508.7). The purpose of this analysis is twofold: first, to determine whether the overall long-term impacts of all such projects would be cumulatively significant and second, to determine whether SunCreek Specific Plan project itself would cause a "cumulatively considerable" (and thus significant) *incremental* contribution to any such cumulatively significant impacts. (See the State CEQA Guidelines [CCR Sections 15064(h), 15065(c), 15130(a), 15130(b), and 15355(b)]). In other words, the required analysis first creates a broad context in which to assess the project's incremental contribution to anticipated cumulative impacts, viewed on a geographic scale well beyond the project site itself. The analysis then determines whether the project's incremental contribution to any significant cumulative impacts from all projects is itself significant (i.e., "cumulatively considerable" in CEQA parlance).

Cumulative impacts are defined in the State CEQA Guidelines (CCR Section 15355) as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” A cumulative impact occurs from “the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time” (CCR Section 15355[b]).

Consistent with the State CEQA Guidelines (CCR Section 15130[a]), the discussion of cumulative impacts in this EIR/EIS focuses on significant and potentially significant cumulative impacts. The State CEQA Guidelines (CCR Section 15130[b]) state that:

The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact.

CEQ regulations implementing provisions of NEPA define cumulative impacts as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions” (40 CFR 1508.7). Cumulative effects can result from individually minor, but collectively significant, actions over time (40 CFR 1508.8). They are caused by the incremental increase in total environmental effects when the evaluated project is added to other past, present, and reasonably foreseeable future actions. Cumulative impacts can thus arise from causes that are totally unrelated to the project being evaluated, and the analysis of cumulative impacts looks at the life cycle of the effects, not the project at issue.

PROJECTS CONTRIBUTING TO POTENTIAL CUMULATIVE IMPACTS

The State CEQA Guidelines identify two basic methods for establishing the cumulative environment in which the project is to be considered: the use of a list of past, present, and probable future projects (the “list approach”) or the use of adopted projections from a general plan, other regional planning document, or certified EIR for such a planning document (the “plan approach”). Either of these methodologies also fulfill the NEPA requirements for cumulative impact analysis (CEQ 1997). For this EIR/EIS, both the list and plan approaches have been utilized to generate the most reliable future projections possible.

GEOGRAPHIC CONTEXT FOR CUMULATIVE IMPACTS

Sacramento County as a whole, including the City of Rancho Cordova, are facing numerous regional issues pertaining to air quality degradation, traffic congestion, biological habitat loss, water quality degradation, and other urban-related environmental changes, which are discussed in greater detail below.

Sacramento County

Sacramento County encompasses approximately 775 square miles in the middle of the 400-mile-long Central Valley, which is California’s prime agricultural region. Sacramento County is bordered by Contra Costa and San Joaquin Counties on the south, Amador and El Dorado Counties on the east, Placer and Sutter Counties on the north, and Yolo and Solano Counties on the west. Sacramento County extends from the low delta lands between the Sacramento and San Joaquin Rivers north to about 10 miles beyond the State Capitol and east to the foothills of the Sierra Nevada. The southernmost portion of Sacramento County has access to the San Francisco Bay via the Sacramento River. Sacramento County lies at the geographic center of the region and spans both agricultural land uses as well as the most urbanized areas of the region. The geographic boundaries of Sacramento County

include seven incorporated cities: Sacramento, Folsom, Rancho Cordova, Citrus Heights, Elk Grove, Galt, and Isleton.

The highest densities of employment and residential uses are located in the urban core of the city of Sacramento. Two of the three regional employment centers are located in Sacramento County, one in downtown Sacramento and the more recent along U.S. Highway 50 (U.S. 50) in the cities of Rancho Cordova and Folsom. Land uses north of the American River are primarily suburban residential with concentrations of commercial and employment uses along major transportation routes. The southern end of the region (e.g., south Sacramento, the unincorporated Vineyard community, the cities of Elk Grove and Galt) is predominantly residential, with the latter three areas at fairly low-suburban to rural densities. The Cosumnes River floodplain and existing agricultural operations separate the cities of Elk Grove and Galt. The southeast county (outside of existing cities and the county Urban Services Boundary [USB]) is in agricultural use with pockets of rural residential communities.

Growth in Sacramento County is occurring and is projected to occur primarily in the cities of Elk Grove and Rancho Cordova and in the community of Natomas, which are the only remaining areas of the county within the USB where land is available.

New residential development is expected to result from buildout of vacant and underutilized parcels; planned communities, including Elverta, East Antelope, Vineyard Springs, North Vineyard Station, and Florin Vineyard Gap; mixed-uses in commercial corridors; and the West of Watt, Easton, Jackson Highway Corridor, and Grant Line East New Growth Areas. Approximately 113,000 housing units could be developed from buildout of these areas (Sacramento County 2009a).

According to the Sacramento Area Council of Government's (SACOG's) Sacramento Region Blueprint, the unincorporated portion of Sacramento County will grow by nearly 100,000 new jobs and 100,000 new housing units by 2030, indicating that this trend is likely to continue (Sacramento County 2009a). Accommodating the projected employment and the new residents will not only require more housing, but will also necessitate additional jobs, stores, human services, transportation system capacity, public facilities, and municipal and countywide services. The county population has grown from 1,041,219 in 1990 to 1,223,499 in 2000 (U.S. Census Bureau 2000a), and the population of the county as of January 1, 2008, was estimated to be 1,433,187 (California Department of Finance [DOF] 2009a).

City of Rancho Cordova

The City of Rancho Cordova encompasses approximately 20,000 acres in eastern Sacramento County. The Planning Area for the City of Rancho Cordova consists of the existing incorporated city and a larger study area (approximately 58,190 acres) and was selected based on the city limits and surrounding areas that are anticipated to be incorporated into the city in the future (City of Rancho Cordova 2006:3.0-1). The city limits and its Planning Area are generally bordered by the American River on the north, Prairie City Road and the boundary of the 100-year floodplain for the Cosumnes River on the east, Jackson Highway (SR 16) on the south, and Watt Avenue and the City of Sacramento on the west (City of Rancho Cordova 2006).

The city is characterized by a wide range of existing land uses, including residential developments, commercial/retail/office uses, industrial uses, and institutional uses. The majority of the commercial, office, and retail uses are located along the Sunrise Boulevard and Folsom Boulevard corridors. Industrial, manufacturing, and distribution facilities are located throughout the city, primarily along Sunrise Boulevard, Jackson Highway (SR 16), Bradshaw Road, and Folsom Boulevard. The Aerojet General Corporation operations are located south of U.S. 50 and east of Sunrise Boulevard. Teichert and Granite have active mining operations north of SR 16 between Bradshaw Road and Excelsior Road and Teichert also has operations south of U.S. 50 along Grant Line Road. The most southern portion of the city (i.e., south of SR 16) is characterized with rural residential, agricultural operations, and industrial land uses. (City of Ranch Cordova 2006:4.1-4.)

The SACOG Blueprint Preferred Scenario anticipates an additional 112,000 households and 144,000 jobs in Rancho Cordova between 2000 and 2050. The Blueprint assumes Rancho Cordova would have a population of over 332,000 people by 2050 and a fairly even mixture of jobs and housing and this growth would occur through development on underutilized lands along and near Folsom Boulevard and lands inside the current USB. Housing is expected to be primarily single-family detached homes plus multi-family units (attached rowhouses, townhomes, condominiums, and apartments) to ensure housing for the growing population and work force (SACOG and Valley Vision 2004a). The city population has grown from 48,731 in 1990 to 53,065 in 2000 (U.S. Census Bureau 2000b), and the population of the City as of January 1, 2009, was estimated to be 61,817 (DOF 2009b).

GEOGRAPHIC SCOPE

The geographic area that could be affected by the project varies depending on the type of environmental resource or issue area being considered. When the impacts of the project are considered in combination with other past, present, and future projects to identify cumulative impacts, the other projects considered may also vary depending on the type of environmental impacts being assessed. The general geographic area associated with different environmental impacts of the project defines the boundaries of the area used for compiling the list of projects considered in the cumulative impact analysis. Table 3.0-1 presents the general geographic areas and time frames associated with the different resources addressed in this EIR/EIS cumulative analysis.

Table 3.0-1 Geographic Scope and Time Frame of Cumulative Impacts		
Resource Issue	Geographic Area	Time Frame
Aesthetics	Sacramento County and the City of Rancho Cordova	Full buildout of the City of Rancho Cordova General Plan from 2006 over the next 20-30 years
Air Quality	Sacramento Federal Ozone Nonattainment Area (includes Sacramento County, Yolo County, the western portion of El Dorado County, and portions of Placer and Solano Counties)	Federal and state regulations and policies generally result in incremental improvements or degradation of regional air quality over a long time period, consistent with full build-out of currently approved County and City General Plans in 20 to 30 years
Biological Resources	Laguna Creek and Morrison Creek watersheds	Losses of vernal pools in the Central Valley began at the onset of expanded European settlement during and after the 1849 gold rush in California. Therefore, the starting point of the analysis is the mid-1800s through full buildout of the City of Rancho Cordova General Plan from 2006 over the next 20-30 years
Climate Change	Global, regional, and local (SPA and vicinity)	Federal and state regulations and policies generally result in incremental improvements or degradation of global climate change over a long time period, consistent with full build-out of currently approved County and City General Plans in 20 to 30 years
Cultural Resources	SPA and Sacramento Region	Losses of cultural resources in the Central Valley began at the onset of expanded European settlement during and after the 1849 gold rush in California. Therefore, the starting point of the analysis is the mid-1800s through Full buildout of the City of Rancho Cordova General Plan from 2006 over the next 20-30 years
Environmental Justice	City of Rancho Cordova and Sacramento County	Full buildout of the City of Rancho Cordova General Plan from 2006 over the next 20-30 years

**Table 3.0-1
Geographic Scope and Time Frame of Cumulative Impacts**

Resource Issue	Geographic Area	Time Frame
Geology, Soils, and Mineral Resources	SPA and immediate vicinity	Full buildout of the City of Rancho Cordova General Plan from 2006 over the next 20-30 years
Hazards and Hazardous Materials	SPA and nearby roadways	Full buildout of the City of Rancho Cordova General Plan from 2006 over the next 20-30 years
Hydrology and Water Quality	South American Groundwater Subbasin, Kite Creek, Laguna Creek, Morrison Creek, Beach Lake, Stone Lake, Sacramento River, and Blodgett Reservoir	Full buildout of the City of Rancho Cordova General Plan from 2006 over the next 20-30 years
Land Use and Agricultural Resources	Development identified in eastern Sacramento County and the City of Rancho Cordova	Full buildout of the City of Rancho Cordova General Plan from 2006 over the next 20-30 years
Noise	Immediate project vicinity where effects are localized	Full buildout of the City of Rancho Cordova General Plan from 2006 over the next 20-30 years
Parks and Recreation	Eastern Sacramento County regional and local facilities	Full buildout of the City of Rancho Cordova General Plan from 2006 over the next 20-30 years
Population, Employment, and Housing	Sacramento region, including Sacramento County and the City of Rancho Cordova	Full buildout of the City of Rancho Cordova General Plan from 2006 over the next 20-30 years
Public Services	Sacramento Metropolitan Fire Department, City of Rancho Cordova Police Department, and Folsom Cordova Unified School District	Full buildout of the City of Rancho Cordova General Plan from 2006 over the next 20-30 years
Traffic and Transportation	Regional and local facilities	Full buildout of the City of Rancho Cordova General Plan from 2006 over the next 20-30 years
Utilities and Service Systems	Sacramento Regional County Sanitation District, Sacramento Regional Wastewater Treatment Plant, Sacramento Metropolitan Utility District, Kiefer Landfill, PG&E, AT&T, SMUD, and Comcast	Full buildout of the City of Rancho Cordova General Plan from 2006 over the next 20-30 years
Water Supply	Sacramento County Water Agency Zone 40 2030 Study Area	Full buildout of the City of Rancho Cordova General Plan from 2006 over the next 20-30 years

Notes: SMUD = Sacramento Municipal Utility District; PG&E = Pacific Gas & Electric Company

Source: Data compiled by AECOM in 2010

LIST OF RELATED PROJECTS

The list of past, present, and probable future projects used for this cumulative analysis is restricted to major development projects in eastern Sacramento County and the City of Rancho Cordova. The projects listed in Table 3.0-2 and depicted in Exhibit 3.0-1 are not intended to be an all-inclusive list of projects in the region, but rather an identification of larger projects approved or planned in eastern Sacramento County and the City of Rancho Cordova that may affect the same resources as the SunCreek Specific Plan project.

In addition to the residential/commercial projects listed in Table 3.0-2, the other projects discussed below are also considered to be “related projects” for purposes of this cumulative analysis.

Map Key	Development	Type of Development	Residential Acreage	Commercial Acreage	Units	Current Status
1	Easton Place at Easton	Residential, Commercial	68	213	1,500	Approved
2	Westborough at Easton	Residential	820	N/A	5,100	Approved
3	Glenborough at Easton	Residential	524	N/A	3,390	Approved
4	Capital Village	Residential, Commercial	71.1	32	827	Under Construction
5	Villages at Zinfandel	Residential, Commercial	527	18	1,833	Under Construction
6	Rio del Oro	Residential, Commercial, Industrial, Recreation, Schools, Open Space	1,920	521	11,601	Approved
7	North Douglas II	Low Density Residential, Open Space	41.5	N/A	153	Pending Approval
8	North Douglas I	Low Density Residential/Park	120.9	N/A	666	Approved
9	Mather East	Commercial, Multi-Family Open Space	11.9	29.1	129	Approved
10	Anatolia I	Residential, Commercial, Recreational, Schools	163.5	14.5	916	Under Construction
11	Anatolia II	Residential, Commercial, Recreational, Schools	150.7	11.1	980	Under Construction
12	Anatolia III	Low Density Residential, Open Space	208	N/A	798	Site Preparation and Grading
13	Anatolia IV	Residential	25	N/A	203	Pending Approval
14	Montelena	Residential, Wetland Preserve, Recreational, Fire Station	158.3	N/A	892	Approved
15	Sunridge Lot J	Residential/Open Space	64.8	N/A	369	Pending Approval
16	Sunridge Park	Low Density Residential	203.4	32.3	953	Awaiting final maps
17, 18, 19, 21	Douglas 103, Douglas 98, Grantline 208, and Arista Del Sol	Residential, Commercial, Office, and Natural Preserve	363.7	24	2,504	Proposed
18	The Ranch at Sunridge (formerly The Preserve)	Residential, Village Center, Parks, Wetland Preserve	303.5	N/A	2,681	Under CEQA Review
23	Excelsior Estates	Residential	N/A	N/A	N/A	Proposed
24	Arboretum	Residential, Parks, Schools, Commercial	616	44.5	5,002	Under CEQA Review
25	Cordova Hills	University Campus, Residential, Commercial, Open Space	942	189	9,010	Proposed
26	Heritage Falls	Residential, schools, commercial	173	N/A	960	Proposed

Map Key	Development	Type of Development	Residential Acreage	Commercial Acreage	Units	Current Status
27	Folsom South of US Highway 50	Residential, Commercial, Open Space	1,477	363	10,210	Under CEQA Review
32	Kiefer Landfill Special Planning Area ¹	Landfill, Habitat Preserve, Industrial	N/A	N/A	N/A	NOP Issued

Notes: N/A = not applicable or data not available.
¹ The Kiefer Special Planning Area would include land use designations of General Agriculture, Public & Quasi Public, and a Waste Stream Industry District. Teichert Quarry, Stoneridge Quarry, DeSilva Gates Quarry, and Sacramento GreenCycle, are described in text below.
Source: City of Rancho Cordova 2010; Sacramento County 2010a; Sacramento County 2010b

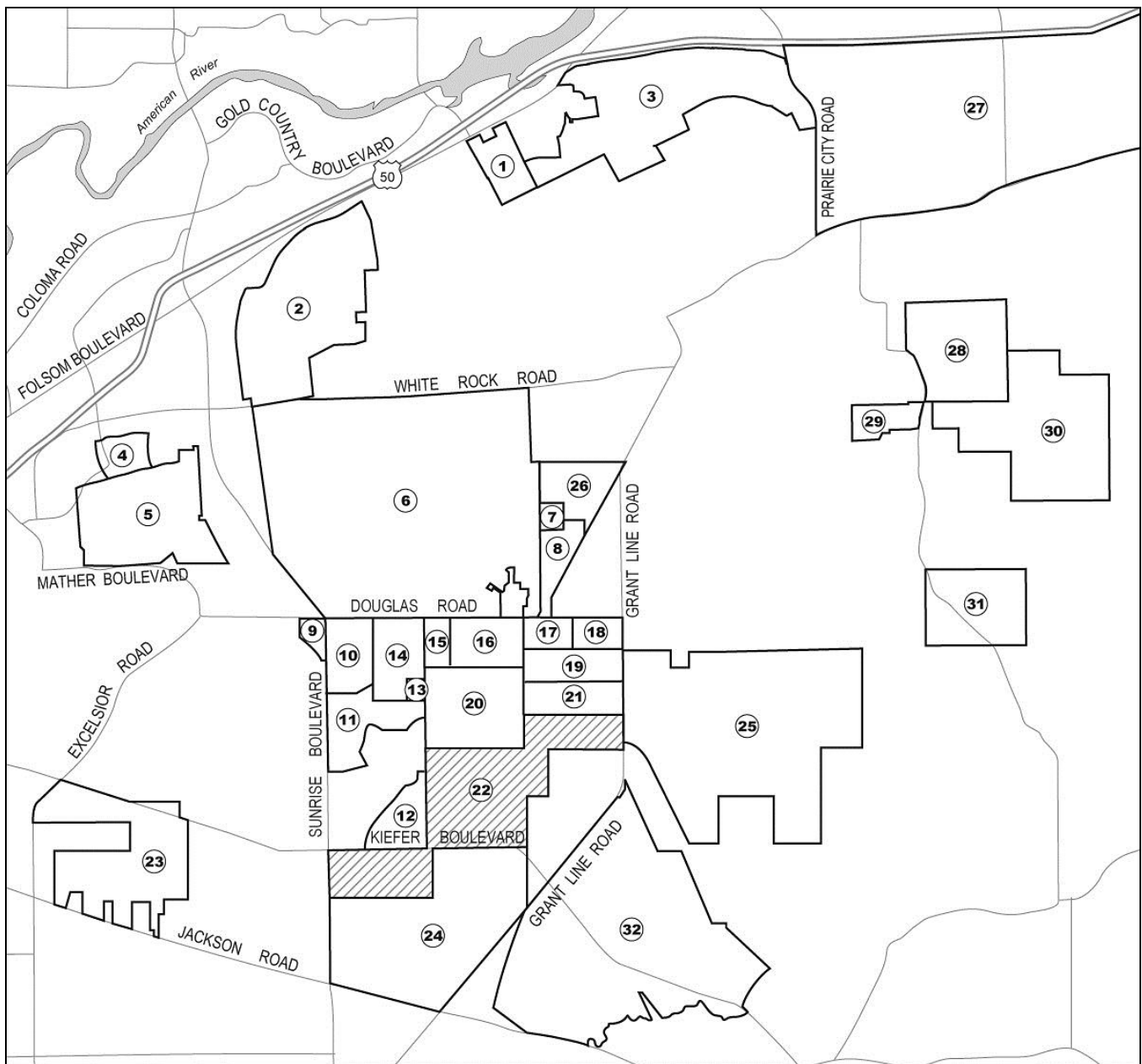
Teichert Quarry

The proposed Teichert Quarry would be located approximately 5 miles northeast of the SPA in Sacramento County, south of White Rock Road, east of Grant Line Road, and west of Scott Road. The Teichert Quarry project would be located on approximately 380 acres of the 580-acre site and would include construction of an aggregate processing facility, administration complex, parking areas, on-site access road, and various other stockpiles and processing areas. The Teichert Quarry project includes construction of a public access road for ingress/egress to the property that would extend from the entrance/exit of the property north approximately one mile to White Rock Road.

The maximum proposed annual aggregate production during the life of the quarry would be 7 million tons per year. A maximum of 6 million tons per year would be distributed directly from the quarry site on haul trucks using the proposed access road. A maximum of 3 million tons and a minimum of 1 million tons per year would be conveyed to the existing Grant Line facility for further processing and sale. Mining would continue for up to 25 years through two mining phases. A total of about 135 million tons of material would be mined over the life of the quarry. At the conclusion of aggregate production, a two- to four-year final reclamation phase would extend the total project lifespan to 27 to 29 years.

The DEIR for the Teichert Quarry Project was released on August 22, 2008. The requested entitlements for the Teichert Quarry project are the following: a General Plan Amendment and rezoning, a use permit, a grading permit, a reclamation plan, an encroachment permit, and a development agreement (Sacramento County 2008). As described in the Teichert Quarry Project DEIR, construction and operation of the quarry would result in a number of environmental impacts, most of which would be reduced to a less-than-significant level through implementation of mitigation measures. Significant and unavoidable impacts associated with the quarry would include: adverse effects on a scenic vista; degradation of the existing visual character of the site and its surroundings; introduction of new sources of substantial light or glare; long-term increases in reactive organic gases (ROG) and oxides of nitrogen (NO_x); increases in traffic from deterioration of levels of service below acceptable levels at roadways or intersections operating at an acceptable level, increases in the volume to capacity ratio at roadways not operating at an acceptable levels of service, and increases in delay by more than five seconds at unsignalized intersections; and potential increases in accidents between haul trucks and cars.

The Teichert Quarry project DEIR includes the following cumulatively significant and unavoidable impacts: alteration of the visual character of the SPA and visual incompatibility with surrounding land uses in the vicinity of the SPA; introduction of new sources of substantial light or glare in the vicinity of the SPA; conversion of agricultural lands to nonagricultural uses; long-term degradation of regional air quality; cumulative impacts on biological resources from buildout of Sacramento County; increases in traffic from deterioration of levels of service below acceptable levels at roadways or intersections operating at an acceptable levels, increases in the volume to capacity ratio at roadways not operating at an acceptable levels of service, increases in density on a



LEGEND

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|---------------------------|--------------------|---------------------------|---|
| 1. Easton Place at Easton | 10. Anatolia I | 19. Grantline 208 | 27. Folsom South of US Highway 50 |
| 2. Westborough at Easton | 11. Anatolia II | 20. The Ranch at Sunridge | 28. Teichert Quarry |
| 3. Glenborough at Easton | 12. Anatolia III | 21. Arista Del Sol | 29. Sacramento GreenCycle |
| 4. Capital Village | 13. Anatolia IV | 22. SunCreek | 30. Stoneridge Quarry |
| 5. Villages of Zinfandel | 14. Montelena | 23. Excelsior Estates | 31. DeSilva Gates Quarry |
| 6. Rio del Oro | 15. SunRidge Lot J | 24. Arboretum | 32. Kiefer Landfill Special Planning Area |
| 7. North Douglas II | 16. SunRidge Park | 25. Cordova Hills | |
| 8. North Douglas I | 17. Douglas 103 | 26. Heritage Falls | |
| 9. Mather East | 18. Douglas 98 | | |

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Sources: City of Rancho Cordova 2010; Sacramento County 2010a, 2010b, 2010c; data adapted by AECOM in 2012

Map of the Related Projects

Exhibit 3.0-1

segment of U.S. 50 operating at unacceptable levels of service without the Teichert project, and increases in delay by more than five seconds at unsignalized intersections; increases in accidents between haul trucks and cars; and increases in greenhouse gas emissions (Sacramento County 2008).

The FEIR for the Teichert Quarry Project was released on October 1, 2010. The General Plan Amendment requested as part of the project was approved on October 27, 2010. The remaining portions of the project were approved by the County Board of Supervisors on November 30, 2010, with the condition that the East Sacramento Regional Aggregate Mining Truck Management Plan, which will be subject to separate CEQA analysis, must be prepared with the involvement of various parties concerned in quarry truck routing.

Stoneridge Quarry

The proposed Stoneridge Quarry project would be located south of White Rock Road and east of Scott Road approximately 5 miles northeast of the SPA. The quarry site is approximately 1,360 acres in size and the active mining and processing area would be approximately 613 acres. The quarry project includes a new access road on an existing right of way that would extend from the quarry property north to White Rock Road. The quarry project would generally involve excavation and processing of hard rock aggregate. The project includes a request for a 100-year mining permit with a maximum annual production rate of 6 million tons. The mining would result in an open pit averaging 350 feet deep. The proposed reclamation plan for the Stoneridge Quarry project anticipates a lake in the mining pit as the end use, with a return to seasonal grazing on the other areas of the site. (Sacramento County 2007a:NOP-2.)

An NOP for the proposed Stoneridge Quarry project was prepared by Sacramento County and circulated for public review in December 2007. The requested entitlements for the Stoneridge project are the following: a General Plan Amendment and rezoning, a use permit to allow quarry mining and processing of materials, a reclamation plan, an encroachment permit, and a development agreement (Sacramento County 2007a:NOP-3). Potentially significant environmental impacts associated with development of this site, as identified in the Stoneridge Quarry project NOP, include impacts on land use, traffic, air quality, drainage and hydrology, water quality, biological resources, noise, geology, aesthetics, and cultural resources.

DeSilva Gates Quarry

The proposed DeSilva Gates Quarry site is located approximately 3 miles northeast of the SPA near the eastern Sacramento County line. Hard rock mining and reclamation would occur on approximately 480 acres within the 3,000-acre Barton Ranch property. Mining permits would allow for up to 6 million tons of rock aggregate production per year over 100 years (Sacramento County 2007b). The City and USACE understand that DeSilva-Gates has withdrawn its application for this project; however, to be conservative for purposes of this analysis, it is assumed that the DeSilva-Gates quarry project will still go forward in the future with a different project applicant. Therefore, this quarry project is included in this cumulative analysis.

An NOP for the proposed DeSilva Gates Quarry project was prepared by Sacramento County and circulated for public review in January 2008. The requested entitlements for the DeSilva Gates Quarry project are the following: a General Plan amendment and rezoning, a use permit to allow quarry mining and processing of materials, a reclamation plan, an encroachment permit, and a development agreement (Sacramento County 2007b). Potentially significant environmental impacts associated with development of this site, as identified in the DeSilva Gates Quarry project NOP, include impacts on land use, traffic, air quality, drainage and hydrology, water quality, biological resources, noise, geology, aesthetics, and cultural resources (Sacramento County 2007b). Although it is assumed that a different quarry project applicant will come forward in the future, it is reasonably foreseeable that the same types of impacts identified in the NOP discussed above would occur regardless of which entity were operating the quarry project.

Sacramento GreenCycle

Sacramento GreenCycle is planned to be a garden refuse processing project that is sited approximately 3 miles northeast of the SPA. The project would include construction and operation of a facility that would accept and process up to 600 tons per day of green waste from residential green refuse. A DEIR was issued for this project on October 21, 2009 and the EIR was certified in March 2010, 30 days after release of the FEIR. The EIR disclosed that implementation of the Sacramento GreenCycle project would result in significant and unavoidable impacts to land use, aesthetics, agricultural resources, traffic and circulation, air quality, odors, hydrology/flooding, and biological resources (Sacramento County 2009b).

REGIONAL PLANNING ENVIRONMENT

The regional cumulative analysis area covers the incorporated and unincorporated areas of Sacramento County and the City of Rancho Cordova. This analysis includes information from the Sacramento County General Plan (Sacramento County 1993), the City of Rancho Cordova General Plan (2006), and the SACOG Sacramento Region Blueprint and Preferred Blueprint Scenario (SACOG and Valley Vision 2004a). A summary of the cumulative planning environment in Sacramento County and the City of Rancho Cordova that is used for the regional cumulative impact analysis is provided below.

Sacramento County General Plan

The *Sacramento County General Plan of 2005–2030* was adopted by the County Board of Supervisors on November 9, 2011. The Sacramento County General Plan update has a planning horizon of 2030, which is consistent with the planning horizons of SACOG’s Sacramento Region Blueprint. The Sacramento County General Plan contains objectives and policies that are intended to guide the County toward a more compact urban character by concentrating growth within existing urbanized areas and revitalizing aging commercial corridors and strategically located new growth areas, thereby using land resources as efficiently as possible, and includes strategies to reduce greenhouse gas emissions consistent with State law.

Portions of the Sacramento County General Plan contain policies for urban development including urban communities and the infrastructure necessary to serve them. Other sections of the Sacramento County General Plan describe strategies to recognize and preserve areas of open space and natural resources. As a whole, the general plan reflects a balance between the amount and location of land uses in urban areas and those to remain in a rural or natural setting.

Community plans reflect the goals and policies of individual communities and guide land use and development of specific communities on a more detailed basis than the general plan. Sacramento County has adopted the following community plans: Antelope, Arden-Arcade, Carmichael, Cordova, Delta, Fair Oaks, North Highlands/Foothill Farms, Orangevale, Rio Linda/Elverta, Southeast, South Sacramento, and Vineyard. Specific plans are detailed policy plans that identify allowable land uses and infrastructure needs for a specific geographic area and are most often used to comprehensively plan for development of new growth areas. Sacramento County has adopted the following specific plans: East Antelope, Elverta, Mather, and North Vineyard Station, Easton, and Vineyard Springs (Sacramento County 2010d).

In addition to community and specific plans, the Sacramento County General Plan identifies Commercial Corridor Plans that focus on planning for future improvements within specified commercial and transportation corridors on a more detailed basis than the general plan; Special Planning Areas that impose a “special” set of development standards for select areas that have unique qualities; and Neighborhood Preservation Areas, which are special zoning regulations that are adopted to preserve the unique qualities and characteristics of a neighborhood.

The Sacramento County General Plan designates two boundaries that guide policies for growth within the county. The USB is the boundary of the urban area in the unincorporated County. It is a permanent boundary that will not

be modified except under extraordinary circumstances and will be used as a planning tool for urban infrastructure providers for developing very long-range master plans that would accompany future urbanization (Sacramento County 2009a).

The Urban Policy Area (UPA) defines the area expected to receive urban levels of public infrastructure and services within the 20-year planning period of the Sacramento County General Plan. The UPA provides the geographic basis for infrastructure master plans, particularly for public water and sewage, which require large capital investments and relatively long lead times for the installation of capital improvements (Sacramento County 2009a).

City of Rancho Cordova General Plan

The City of Rancho Cordova General Plan serves as a compass to guide planners, the general public, and decision makers on the desired pattern of development in Rancho Cordova. It describes both existing and future land use activity, the latter of which was designed to achieve the city's long-range goals for physical development. The General Plan identifies the distribution, location, and intensity of all land use types throughout the city.

Sacramento Area Council of Governments Sacramento Region Blueprint

The SACOG Sacramento Region Blueprint depicts a way for the region to grow through the year 2050 as the current population of 2 million increases to more than 3.8 million, the number of jobs increases from 921,000 to 1.9 million, and the amount of housing increases from 713,000 to 1.5 million units (inclusive of the development described above). In December 2004 the SACOG Board of Directors adopted the Preferred Blueprint Scenario, 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 predicts that undertaking a realistic long-term planning process will result in long-term environmental benefits and avoidance of impacts; these benefits are intended to minimize the extent of the inevitable physical expansion of the overall regional urban area. As a result, natural resources that might be lost under a traditional approach would be protected because less land would be required for urban uses and less agricultural land would be converted. In addition, the Preferred Blueprint Scenario predicts less time per person devoted to travel, fewer car trips, and fewer miles traveled to work and local businesses. The reduction in traffic compared with what would occur under traditional patterns would lead to long-term reductions in air quality emissions in the region by reducing the amounts of vehicular carbon monoxide (CO) and particulate matter that would otherwise be emitted under traditional, lower density development patterns (SACOG and Valley Vision 2004b).

Although it is only advisory, the Blueprint is the most authoritative regional policy guidance in the Sacramento region for long-term regional land use and transportation planning. As stated in the City General Plan, land uses in Rancho Cordova generally reflect the types and intensity of land uses shown in the Preferred Blueprint Scenario, which envisions relatively higher overall residential densities than currently in place. This land use scenario does not establish "buildout targets" but anticipates the addition of approximately 54,000–60,000 new households and 48,000 new jobs in the current Rancho Cordova city limits (based on assumptions used in the Blueprint process), with possible additional growth in the planning area.

ANALYSIS OF CUMULATIVE IMPACTS

The cumulative impacts anticipated to result from implementation of the SunCreek Specific Plan project, together with the related projects and regional development, are evaluated in this EIR/EIS within each of the 17 environmental issue areas (i.e., Sections 3.1 through 3.17) of Chapter 3. The analysis conforms with CCR Section 15130 of the State CEQA Guidelines, which specifies that the "discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great a detail as is provided of the effects attributable to the project alone." The CEQ (1997) provides for a similar approach. Cumulative impact discussions are provided after the analysis of project-specific impacts for each resource section.

The cumulative impacts of implementing the Proposed Project or any of the other four action alternatives would be substantially similar; therefore, this cumulative analysis uses the term “project” to refer to all of the action alternatives. There would be no cumulative impacts from adoption of the No Project Alternative, because no development would occur.

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