PUBLIC REVIEW DRAFT
PROGRAM ENVIRONMENTAL IMPACT REPORT

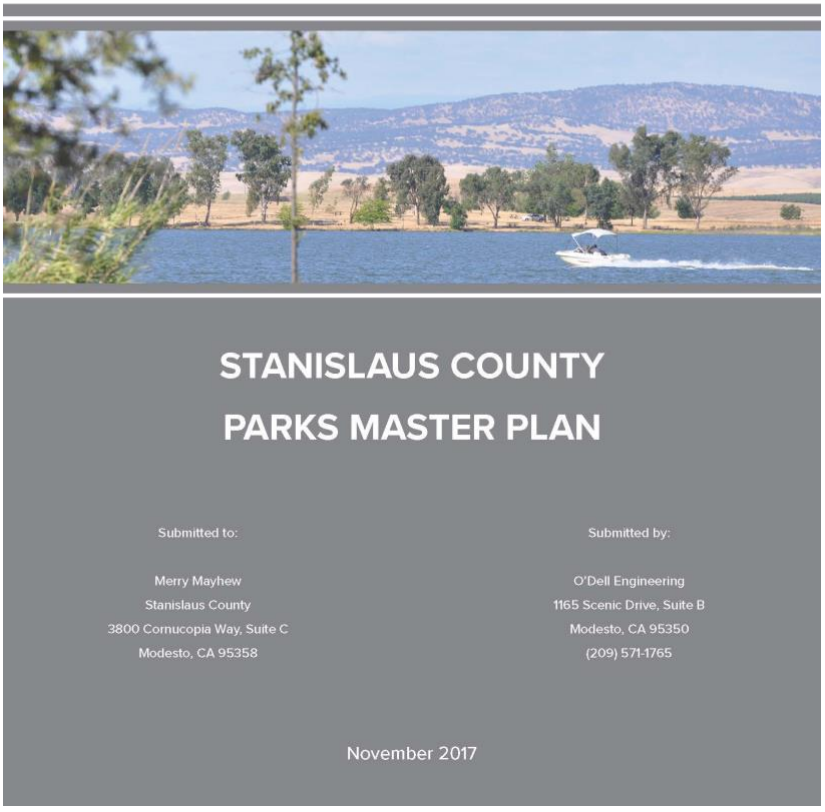
FOR THE

STANISLAUS COUNTY PARKS MASTER PLAN

Stanislaus County, California

January 8, 2018

STANISLAUS COUNTY
PARKS & RECREATION



BaseCamp Environmental

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Prepared for:
STANISLAUS COUNTY
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STANISLAUS COUNTY
DEPARTMENT OF PARKS AND RECREATION
NOTICE OF AVAILABILITY
STANISLAUS COUNTY PARKS MASTER PLAN
DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT

NOTICE IS HEREBY GIVEN that the Stanislaus County Department of Parks and Recreation has prepared a Draft Program Environmental Impact Report (EIR) to describe the environmental effects of adopting the proposed 2018 Stanislaus County Parks Master Plan (PMP).

The Department of Parks and Recreation (DPR) operates and maintains existing regional, community parks, neighborhood parks and other recreational facilities and public open spaces located throughout the County. The proposed PMP updates the County's existing Parks Master Plan to address anticipated future park and recreation needs over the 20-year period 2018-2038. The PMP describes plans for new and improved park facilities, provides economic and fiscal planning guidance, and outlines an implementation plan.

The EIR analyzes the potential environmental impacts of implementing the PMP, including the potential environmental effects of planned park improvements. The EIR identifies potentially significant environmental effects on aesthetics, air quality, biological resources, cultural resources, geology and soils, hazards, hydrology and water quality, noise, public services, traffic and utilities and mitigation measures for these effects. The EIR does not identify significant unavoidable effects. The environmental impact analysis is conducted at a program level; the EIR is intended to be used as a tiering document to facilitate the environmental analysis of subsequent park improvement projects under CEQA.

The DPR is seeking agency and public comment on the EIR. If you represent a public agency, please provide information that is germane to your statutory responsibilities as they may be affected by this project. The EIR is available for public review at the Department of Parks and Recreation and the following locations, during business hours.

Modesto Library, 1500 I Street	Patterson Library, 46 N Salado Avenue
Turlock Library, 550 N Minaret	Waterford Library, 324 E Street
Oakdale Library, 151 S First Street	Newman Library, 1305 Kern Street

The DEIR is also available for review or download at ***http://www.stancounty.com/parks/.*** Electronic copies of the EIR will be provided by email on request to the DPR. Printed copies may be obtained from the DPR on request for the cost of reproduction. The 45-day public review period will begin on January 8, 2018 and end on February 21, 2018. Written comments should be submitted to the address below prior to 5:00 p.m., Wednesday February 21, 2018.

The Stanislaus County Parks Commission will meet to consider the PMP and the EIR on Thursday January 11 at 5:00 p.m. in the 2nd Floor Conference Room, 3800 Cornucopia Way, Suite C, Modesto. The Stanislaus County Board of Supervisors will meet to consider certification of the EIR and approval of the PMP during May 2018 in the Board Chambers, 1010 10th Street, Modesto.

Please submit comments by mail, fax or email to:

Merry Mayhew, Assistant Director
Stanislaus County Department of Parks and Recreation
3800 Cornucopia Way, Suite C
Modesto, CA 95358
Phone: 209-525-6760, Fax: 209-525-6773
Email: mmayhew@envres.org

Jami Aggers, Director, Parks and Recreation

January 8, 2018

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ACRONYMS AND ABBREVIATIONS USED IN THIS DOCUMENT

AB	Assembly Bill
APE	Area of Potential Effect
ARB	California Air Resources Board
BNSF	Burlington Northern and Santa Fe Railroad
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
dB	decibel
dBA	A-weighted decibel
DWR	California Department of Water Resources
EIR	Environmental Impact Report
EMF	electromagnetic field
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act (federal)
FAA	Federal Aviation Administration
GAMAQI	Guide for Assessing and Mitigating Air Quality Impacts
GHG	greenhouse gas
GSA	Groundwater Sustainability Agency
IPCC	Intergovernmental Panel on Climate Change
IS	Initial Study
L_{dn}	Day-Night Average Noise Level
L_{eq}	equivalent noise level
MID	Modesto Irrigation District
MND	Mitigated Negative Declaration
NHPA	National Historic Preservation Act
NO_x	nitrogen oxide
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
PEIR	Program Environmental Impact Report
PG&E	Pacific Gas and Electric Company
$PM_{2.5}$	particulate matter less than 2.5 micrometers in diameter
PM_{10}	particulate matter less than 10 micrometers in diameter
ppb	parts per billion
ppm	parts per million
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SJVAB	San Joaquin Valley Air Basin
SJVAPCD	San Joaquin Valley Air Pollution Control District
SR	State Route
SRA	State Responsibility Area

StanCOG	Stanislaus Council of Governments
STRGBA	Stanislaus and Tuolumne Rivers Groundwater Basin Association
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TID	Turlock Irrigation District
UPRR	Union Pacific Railroad
USA	Underground Service Alert
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

Note: Where used in this PEIR, "Stanislaus County" or "county" refers to the land and water area within the boundaries of Stanislaus County. "County" refers to the government of Stanislaus County.

1.0 INTRODUCTION

1.1 PROJECT BRIEF

This document is a Program Environmental Impact Report (PEIR) that analyzes the potential environmental impacts of the proposed Stanislaus County Parks Master Plan, hereinafter referred to as the "Parks Master Plan", the "PMP" or the "project." This PEIR was prepared in accordance with the California Environmental Quality Act (CEQA) and generally follows the analysis sequence of the latest Environmental Checklist in CEQA Guidelines Appendix G. Stanislaus County is the CEQA lead agency for this project.

Stanislaus County, through its Department of Parks and Recreation (County Parks), operates and maintains parks and recreational facilities throughout the County. To manage future park operations and to address future needs of County residents, an updated Parks Master Plan is proposed. The updated Parks Master Plan provides a comprehensive parks management and improvement program for the 20-year period 2018-2038. The PMP includes a recreation needs assessment, future planning for necessary new facilities, specific park plans, economic and fiscal planning, and an implementation plan. This PEIR analyzes the potential environmental impacts of the Parks Master Plan, including the potential environmental effects of planned park improvements. The environmental impact analysis is conducted at a program level, but the PEIR is intended to be used as a tiering document to facilitate the environmental analysis of subsequent park improvement projects.

FIGURE 1
CALIFORNIA/COUNTY LOCATION
SOURCE: O'Dell Engineering

1.2 PROJECT BACKGROUND

Stanislaus County Parks and Recreation Department

County Parks is responsible for grounds maintenance and recreational operations of County-owned parks and other open space facilities. These include 5 regional parks, 10 community parks, 12 neighborhood parks, two OHV parks, cemeteries, bridges, County facilities and office buildings located throughout Stanislaus County. County Parks is budgeted for 42 authorized positions in three divisions: Administration, Community Parks/County Centers, and Regional Parks. The operating

budget projected for FY 17/18 is $8.0 million with $4.5 million in projected revenue and $ 3.1 million in general fund support (Stanislaus County 2017).

County Parks and Recreation Facilities

County Parks manages more than 40 parks and recreation facilities. The regional parks encompass approximately 16,300 acres, and the community and neighborhood parks together total 107 acres, for a total of about 16,400 acres of park land. The County Parks Department also maintains fishing access points and miscellaneous open space areas. County parks and recreational facilities described in more detail below provide a vast array of recreational opportunities, including but not limited to sailing and power boating, water skiing, jet skiing, fishing, swimming, camping, picnicking, hiking, hunting, horseback riding, and biking. In addition, the County Parks Department provides a wide variety of recreational classes, activities, programs and services, including after-school programs and swimming classes through Stanislaus County's Police Activity League as well as a variety of community-wide special events.

Appendix A lists the parks and recreational facilities managed by the County. Most of the parkland acreage is in the five regional parks: Frank Raines, La Grange, Laird, Modesto Reservoir, and Woodward Reservoir, the latter two of which are the most sizable managed by the County. Although the reservoirs themselves are owned and operated by irrigation districts for irrigation and portable water storage, the County owns and leases lands along the shorelines that have been developed for recreational use. Frank Raines Park and La Grange Park have special use areas for off-road vehicles, along with hiking trails and camping areas. La Grange Park and Laird Park provide boating access to the Tuolumne River and the San Joaquin River, respectively.

The County is a partner in a Joint Powers Agreement, along with the City of Modesto and the City of Ceres, that funds and operates the Tuolumne River Regional Park. This regional park encompasses approximately 500 acres and extends along a seven-mile stretch of the Tuolumne River, from Mitchell Road Bridge to Carpenter Road Bridge. The park is partially developed with facilities at Legion Park and Beard Brook Park.

Approximately 107 acres of County parkland are divided among 22 community and neighborhood parks in unincorporated communities. These parks range in size from 9 acres to less than 1 acre in size. They include special use facilities such as the Bonita Pool, Burbank-Paradise Hall, and baseball/softball fields in Fairview, Hatch, and Salida Parks. These facilities are listed individually in Appendix A.

1999 Parks Master Plan

The County adopted its current Parks Master Plan in 1999. Like the proposed PMP, the current Parks Master Plan provides general guidance to the County Board of Supervisors, the County Parks and Recreation Commission, and the County Parks Department in meeting park and recreation goals for an extended period. Similarly, the existing plan includes a needs assessment, specific park improvement plans, design standards, and economic and fiscal planning. Many of the planned improvements and other programs described in the 1999 Master Plan are brought forward to the updated PMP.

The 1999 Parks Master Plan includes future planning for a new regional park and new river accesses, development of neighborhood parks in unincorporated communities currently unserved by

such parks, and recreational uses at the Geer Road Landfill. These recommendations are not brought forward to the proposed updated PMP.

SOURCE: Google

BaseCamp Environmental

Figure 1-2
STREET MAP

The 1999 Parks Master Plan is near the end of its planning horizon, and much of its baseline information is outdated. In addition, it does not address certain current recreation issues such as the following:

- Tuolumne River Regional Park
- Current parks and recreation trends such as dog parks and inclusive play
- Current funding and grant opportunities
- New development trends and locations
- Current partnership and joint use agreement trends
- Modern best practices and design standards
- Current codes and guidelines

1.3 CEQA REQUIREMENTS AND PURPOSE OF THE PEIR

This PEIR has been prepared in accordance with the requirements of CEQA and the State CEQA Guidelines. CEQA was passed in 1970 to ensure that state and local agencies consider the environmental effects of actions regulated by those agencies. The State CEQA Guidelines contain advisory and mandatory requirements for the application of CEQA to development projects. For the proposed PMP, County Parks is the "lead agency". As defined in the State CEQA Guidelines, a lead agency is a public agency that carries out a project or that has the greatest responsibility for supervising or approving a project.

An EIR is intended to inform decision-makers and the public about the potentially significant adverse environmental effects of a proposed project, and to recommend mitigation measures that would reduce or avoid these effects. An EIR also includes consideration of cumulative impacts, growth-inducing impacts, irreversible effects and alternatives to the proposed project. Regulatory agencies and members of the public have the opportunity to comment on the adequacy of the environmental review during a 45-day review period following the publication of the Public Review Draft EIR. After the close of the public review period, the lead agency is obligated to provide written responses to the comments received, and those responses will be published in a Final EIR. The Final EIR must be considered by lead agency decision-makers (the Board of Supervisors) and any other agencies with permit jurisdiction over the project, prior to project approval. The lead agency and the approving agencies are also required by CEQA to make certain findings related to the mitigation of significant environmental effects prior to project approval.

The Parks Master Plan is primarily a planning document; although it describes specific park improvements, the Parks Master Plan as a whole is programmatic in nature. State CEQA Guidelines Section 15168(a) states that a Program EIR may be prepared on a series of actions that can be characterized as one large project and are related either:

1) Geographically,

2) As logical parts in the chain of contemplated actions,

3) In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or

4) As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

Since the Parks Master Plan covers an interrelated set of parks and recreational facilities in a single geographical area (Stanislaus County), the preparation of a PEIR is considered appropriate. This PEIR addresses the potential environmental effects of implementing the Parks Master Plan, and describes mitigation measures that would avoid or reduce these impacts, consistent with the Plan's level of definition of park improvements that would occur.

Future park improvement activities described in the Parks Master Plan and the PEIR are also subject to environmental consideration under CEQA. The CEQA consideration required for future park improvements should be satisfied at least in part by the PEIR, provided that its baseline information and analysis remain applicable. The level of subsequent review needed, if any, will be determined pursuant to the applicable requirements of CEQA and the State CEQA Guidelines, including Public Resources Code 21083.3 and CEQA Guidelines Sections 15182 and 15183. Projects that can reasonably be found exempt from CEQA would not require additional review. To the degree that the lead agency finds that the potential environmental effects of park improvements are adequately addressed by the Parks Master Plan EIR, future environmental review could be reduced or avoided altogether. CEQA Guidelines Section 15168(b) encourages the use of Program EIRs for this purpose, which is consistent with the process of "tiering" as described in CEQA Guidelines Section 15152.

1.4 CEQA PROCEDURES FOR THE PEIR

On November 3, 2017, the County circulated a Notice of Preparation (NOP) inviting comments from interested agencies as to environmental concerns that should be considered in the PEIR. The 30-day NOP comment period closed in December 2017. Appendix B contains the NOP and comments received from interested parties.

With the release of the Draft PEIR and accompanying Notice of Availability (NOA), regulatory agencies and members of the public have the opportunity to comment on the adequacy of the environmental review during a 45-day review period. After the close of the public review period, the County is obligated to provide written responses to the comments received, and these responses will be published in a Final PEIR.

The Final PEIR must be considered by County decision-makers prior to a decision on the Parks Master Plan. Before the County can approve the plan, it must first certify that the Final PEIR was completed in compliance with the provisions of CEQA, that the County has reviewed and considered the information in the Final PEIR, and that the Final PEIR reflects the independent judgment of the County on the environmental impacts of the plan. If mitigation measures have been included in the Final PEIR, the County also must adopt a Mitigation Monitoring and Reporting Program (MMRP) that will ensure the mitigation measures are implemented.

In addition to the above, the decision-makers must also make findings with respect to the potentially significant environmental effects of the project as described in the CEQA Guidelines Sections 15091 – 15093. In brief, the decision-makers must make a written determination with respect to

each significant as to whether: 1) project changes or mitigation measures will be incorporated into the project that will avoid or substantially lessen the potential effect to a less than significant level; 2) such changes or measures are the responsibility of another agency, or 3) specific economic, legal, social, technological, or other considerations make the mitigation measures or project alternatives identified in the EIR infeasible.

In accordance with CEQA Guidelines Section 15163(c), this PEIR is available for public review and comment on the dates specified in the NOA, located inside the cover of this document. Any comments or questions regarding this PEIR should be submitted to the County by email to mmayhew@envres.org, or by mail to the following address, before the close of the public review period:

Stanislaus County
Department of Parks and Recreation
3800 Cornucopia Way, Suite C
Modesto, CA 95358
Attention: Merry Mayhew

2.0 SUMMARY

2.1 PROJECT DESCRIPTION

Stanislaus County, through its Parks and Recreation Department, operates and maintains parks and recreational facilities throughout the County, which include five regional parks, 22 neighborhood parks, and various other public open spaces. Park management and development is governed by a Parks Master Plan adopted in 1999, which has become outdated. The County and its consulting team have prepared an updated Parks Master Plan for consideration and adoption. The proposed Parks Master Plan inventories existing park facilities, assesses countywide park and recreation needs over a 20-year planning period (2018-2038) and makes recommendations for park improvements to be completed during this period.

Existing and proposed recreational facilities are described in detail in the Parks Master Plan, discussed and shown as to location in Chapter 3.0 of this PEIR, listed in detail in PEIR Appendix A and summarized below.

Regional Parks. Prospective improvements at the County's five large regional parks require individual planning to take advantage of the varied recreation opportunities at each of these unique sites. These opportunities include hunting, fishing, off-highway vehicle use, historic and cultural resources, nature study, water play and sports at reservoirs used for irrigation and drinking water. Planned improvements would include expanded walking, hiking, bicycling, and equestrian trails, improvements to restroom facilities, increases in the number of restroom/shower facilities, upgraded WiFi access, improved tree maintenance, and provision of an outdoor amphitheater within each park to support special events, educational outings, and interest group meetings. Planned improvements to Frank Raines Regional Park include opening an additional 500 acres for OHV use.

Neighborhood Parks. Improvements at neighborhood parks will include addition of shade structures, paved walking circuit paths, adult exercise options/workout stations, "dog parks," night lighting at selected locations, new and refurbished play areas and other park furnishings. The Master Plan also includes a commitment to improving the County's neighborhood park acreage shortfall by developing approximately 200 acres, or 20-40 average-sized neighborhood parks of 5-10 acres each, over the planning period in order to meet current County standards in the unincorporated area. Individual park sites are not identified in the Master Plan but will be identified and developed during the planning period.

Special Interest Parks. Improvements at these largely fishing-oriented facilities will include improvements to provide ADA accessibility, boat launch ramps, adequate lighting, better litter control, paving of access and parking areas and improved signage.

The Master Plan defines a number of Best Practices and Design Guidelines, which would be applied to the management and improvement of existing parks as well as development of new parks. The latter portions of the plan are devoted to prioritization, programming and financing of needed facilities.

2.2 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

The potentially significant impacts of the Parks Master Plan, and the mitigation measures proposed to minimize these effects, are summarized in Table 2-1 at the end of this chapter. Table 2-1 lists the various potential impacts of implementing the Master Plan, lists the mitigation measures proposed to avoid or minimize significant effects, and indicates the significance of impacts, both before and after application of mitigation measures. With proposed mitigation measures, nearly all of the potential impacts of Parks Master Plan activities can be reduced to a level that is less than significant; some planned improvements would be subject to additional project-level CEQA review. This is discussed in Section 2.4 below.

2.3 SIGNIFICANT UNAVOIDABLE EFFECTS/AREAS OF CONTROVERSY

Table 2-1 identifies all of the potentially significant environmental effects of the project and the mitigation measures proposed to address the identified effects. In most cases, the proposed mitigation measures would be effective in reducing potential environmental effects to less than significant. Some of the County's planned improvements, including major improvements to accommodate entertainment and festival events at Woodward Reservoir, and a planned 200 acres of neighborhood parks to be developed in unincorporated areas to meet current County standards, involve potential for environmental effects that are too speculative to adequately describe in this programmatic EIR. At Frank Raines Regional Park, issues related to expansion of the existing OHV area, including potential for Naturally-Occurring Asbestos, need additional scientific work to determine whether expansion would involve significant environmental effects. In such cases, preparation of additional environmental documentation may be required.

Other than these areas of uncertainty, the County is unaware of controversy associated with the environmental effects of the Parks Master Plan beyond those disclosed in the PEIR.

2.4 SUMMARY OF ALTERNATIVES

Chapter 19.0, Alternatives, identifies and discusses a range of reasonable alternatives to the proposed ESI Program, including the "no project" alternative. Potential alternatives were evaluated for their feasibility, their relative environmental impacts, and their consistency with the proposed project objectives. After detailed consideration, only the No Project Alternative was addressed in detail. The relative benefits of other alternatives considered were incorporated into the proposed Parks Master Plan.

For the purposes of the PEIR, the No Project Alternative is defined as no adoption of the updated Parks Master Plan. The 1999 Parks Master Plan would be assumed to remain in effect at least until the end of its planning horizon (2018) is reached; no other plan would be adopted. It is further assumed that existing conditions at the County parks and recreational facilities would remain more or less the same, with ongoing maintenance performed to prevent deterioration. No new or expanded park or recreation facilities would be constructed, and no new park-related infrastructure would be installed.

This alternative would not attain the basic objectives of the project, which are to provide recreational facilities and services consistent with desires of Stanislaus County residents, to correct

existing deficiencies in park acreage, and to meet the demands of a growing population. While existing facilities would be maintained, increased maintenance costs would likely be required in order to offset the effects of increasing usage of an overburdened park system.

Under this alternative, most of the potential environmental impacts of development proposed in the updated Parks Master Plan would be avoided. These would include landscape disturbance, potential disturbance of habitat and cultural resources, air pollutant and GHG emissions from construction, discharges into surface waters, and changes in demands for fire and police protection services. No Project would also eliminate the planned benefits of adopting the updated plan, such as programs for park improvements, development of essential new neighborhood parks, and substantial improvements to visitor accommodations at the regional parks, including the new entertainment and festival venue at Woodward Reservoir Regional Park.

The PEIR also considered alternative sites and designs for proposed improvements. In large part, these would be infeasible as they are tied directly to the County's existing park facilities. Alternative locations for OHV park expansion were discussed but considered impracticable. In the end, "alternative sites" were not considered a "reasonable alternative" to the proposed project.

Although the No Project Alternative could eliminate or avoid all potential environmental effects of the project, the PEIR concludes that the proposed project is not substantially distinguishable from the No Project Alternative on the basis of environmental impacts and can therefore be considered the Environmentally Superior Alternative on at least an equal basis with the No Project Alternative.

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
4.0 AESTHETICS AND VISUAL RESOURCES			
Impact AES-1: Scenic Vistas.	LS	None required.	
Impact AES-2: Scenic Resources.	PS	AES-1: Recreational improvements such as boat ramps, piers, camp sites in areas of potential visual sensitivity, including the shorelines of Woodward and Modesto Reservoir, and the Tuolumne and San Joaquin River banks should be designed to preserve and enhance scenic resources that could be affected by the project. AES-2: If significant aesthetic impacts that cannot be reasonably mitigated are anticipated, the County shall prepare a separate CEQA document for the project as described in PEIR Section 3.4, including feasible mitigation measures needed to reduce those potential impacts to a less than significant level.	LS
Impact AES-3: Visual Character.	PS	See Mitigation Measures AES-1 and AES-2. In addition, the following mitigation measure shall be implemented. AES-3: For projects that require grading or landscape alteration, a grading and landscaping plan shall be prepared prior to project approval. The plan shall include measures designed to control erosion and ensure the long-term survival of landscaping materials.	LS
Impact AES-4: Light and Glare.	PS	AES-4: New ballfield or other intensive outdoor lighting facilities shall be designed so as to minimize glare or excessive lighting impacts to offsite residential areas. Restrictions on time of use also may be placed on lighting facilities to minimize impacts as required.	LS
5.0 AGRICULTURAL RESOURCES			
Impact AG-1: Conversion of Farmland	LS	None required.	
Impact AG-2: Agricultural Zoning, Williamson Act Contracts, and Agricultural Operations	LS	None required.	

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Impact AG-3: Other Environmental Changes That Could Result in Agricultural Land Conversion.	LS	None required.	
6.0 AIR QUALITY			
Impact AIR-1: Air Quality Plans and Standards (Construction Emissions).	PS	AIR-1: All grading, road construction and other projects involving substantial ground disturbance shall comply with the relevant provisions of the San Joaquin Valley Air Pollution Control District Regulation VIII, Control Measures for Construction Emissions of PM-10. These provisions include, but are not limited to, the following: a. All disturbed areas, including storage piles, which are not being actively utilized for construction purposes shall be effectively stabilized to control dust emissions by using water, chemical stabilizer/suppressant, or vegetative ground cover. b. All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized to control dust emissions by using water or chemical stabilizer/suppressant. c. All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall effectively control fugitive dust emissions by utilizing application of water or by presoaking. d. When materials are transported off-site, all material shall be covered or effectively wetted to limit visible dust emissions, or at least six inches of freeboard space from the top of the container shall be maintained. e. All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at least once every 24 hours when operations are occurring. The use of dry rotary brushes is	LS

Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden. f. Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized to control fugitive dust emissions by utilizing sufficient water or chemical stabilizer/suppressant. g. Limit traffic speeds on unpaved roads to 15 mph. h. For projects five acres in size or greater, the contractor shall prepare and submit a Dust Control Plan to SJVAPCD. For projects less than five acres but at least one acre in size, the County shall notify SJVAPCD as required.	
Impact AIR-2: Air Quality Plans and Standards (Operational Emissions	PS (Woodward Reservoir Northside project)	AIR-2: The Woodward Reservoir Northside project shall be subject to separate environmental review under CEQA, including modeling of potential air emissions. If the operational emissions associated with a project are found to exceed the SJVAPCD significance thresholds, the project shall identify and implement mitigation measures that would reduce emissions to a level that would be below the applicable significance thresholds. If the project meets the criteria for applicability of SJVAPCD Rule 9510 (the Indirect Source Rule) shall comply with all requirements as set forth by the SJVAPCD.	LS
Impact AIR-3: Exposure of Sensitive Receptors to Pollutants.	PS	Mitigation Measure AIR-1	LS
Impact AIR-4: Odors	PS	AIR-4: Prior to construction of dog park projects, the County shall establish and implement a maintenance plan that provides for effective control of potential odors. The plan may include, but is not limited to, the types of materials to be used, regularly scheduled cleanup, availability of materials and facilities for dog owners to clean up and dispose of	LS

Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		wastes, and procedures to handle odor complaints.	
7.0 BIOLOGICAL RESOURCES			
Impact BIO-1: Special-Status Species and Habitats.	PS	BIO-1: Prior to approving expansion of OHV use into new terrain at Frank Raines Regional Park, the County shall have a qualified biologist conduct a biological resource inventory of the proposed OHV-use area, documenting any potentially-occurring special-status plant or wildlife species and/or their habitat on or near the site. The assessment shall describe alternatives for avoiding or minimizing special-status species as well as design or mitigation measures that could avoid or reduce impacts to special-status species or their habitat to a less than significant level. Proposals for OHV expansion shall be modified or mitigated as required to reduce potential biological effects to a less than significant level. Unless, it is clear in the biologist's report that potential impacts are relatively minor and readily mitigated, or in the event that the project has the potential to involve significant and unavoidable biological effects, then further CEQA analysis involving public review will be needed. BIO-2: Prior to initiation of grading or other substantial disturbance of the proposed boat launch ramp and fishing pier at Laird Regional Park, and the undeveloped portions of the Modesto Reservoir Westside area, and the County shall have a qualified biologist conduct a biological resource assessment of the project documenting any potentially-occurring special-status plant or wildlife species and/or their habitat on or near the site. The assessment shall describe feasible design or mitigation measures that would avoid or reduce impacts to any special-status species, or their habitat, to a less than significant level. The project shall be modified or mitigated as required to reduce biological effects to a less than significant level. In the event that the project would involve significant biological effects that cannot be readily mitigated, then further CEQA	LS, or additional CEQA review is required.

Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		environmental review would be needed. BIO-3: Prior to approval and subsequent construction of recreational development in the Woodward Reservoir Northside area, the County shall have a qualified biologist conduct a biological resource assessment of the project documenting any potentially-occurring special-status plant or wildlife species and/or their habitat on or near the site. The assessment shall describe feasible design or mitigation measures that would avoid or reduce impacts to any special-status species, or their habitat, present to a less than significant level. The project shall be modified or mitigated as required to reduce biological effects to a less than significant level. In the event that the project would involve significant and unavoidable biological effects, then further CEQA environmental review would be needed. BIO-4: Development of new neighborhood parks or other new park facilities should be preceded by a biological assessment of the resources of the site so as to avoid avoidable and potential significant biological impacts.	
Impact BIO-2: Sensitive Plant Communities.	PS	BIO-5: Fishing access, boat launch or other river-side improvements in or adjacent to riparian areas shall be inspected by a qualified biologist, who shall identify design or mitigation measures that would reduce the potential effects of the project to a less than significant level. The biologist's recommendations shall be incorporated into the project. BIO-6: The County shall have a qualified biologist prepare an assessment of potential biological effects and recommendations for avoiding or reducing effects to a less than significant level for recreational improvements that may involve encroachment into other sensitive plant communities identified above. In the event that potential biological effects cannot be reduced to a less than significant level, then a separate CEQA review of the project shall be conducted.	LS

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Impact BIO-3: Waters of the U.S. and Wetlands.	PS	BIO-7: A qualified biologist shall prepare a wetlands assessment for projects involving potential disturbance of Waters and wetlands. Potential for jurisdictional wetlands will be evaluated pursuant to the U.S. Army Corps of Engineers (USACE) guidelines. If no Waters or wetlands are identified, then no further mitigation is required. BIO-8: If wetlands or other Waters of the U.S. are identified, project design shall avoid them to the extent feasible. If wetlands and Waters cannot be entirely avoided, a mitigation plan shall be developed and implemented. BIO-9: All required permits will be secured for work within jurisdictional waters from USACE, CDFW, the Regional Water Quality Control Board (RWQCB), and other agencies with jurisdiction prior to the start of construction work.	LS
Impact BIO-4: Wildlife Migration Corridors and Nesting Sites.	PS	BIO-10: Pre-construction surveys for nesting raptors and migratory birds will be conducted for projects where trees requiring trimming or removal are identified during the preliminary review. In the event that active nests are located, the need for construction restrictions will be determined on a case-by-case basis in consultation with the CDFW. In most cases, tree removal and/or trimming will need to be delayed until the young have fledged. BIO-11: If a migratory corridor or nursing site is found to be present on the project site as part of a biological survey, the County shall prepare a plan to avoid or minimize impacts on these areas. The County shall consult with, and obtain necessary permits from, State and federal agencies with jurisdiction over the migratory species.	LS
Impact BIO-5: Local Biological Resource Ordinances and Habitat Conservation Plans	LS		

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
8.0 CULTURAL RESOURCES			
Impact CULT-1: Historical and Archaeological Resources	PS	CULT-1: The LaGrange Historic District Master Plan should identify the historic resources of the District, their historic significance and the factors contributing to the significance. The LGHDMP shall define procedures for development, restoration or other management actions required to preserve and enhance La Grange historic values, including applicable state and federal standards and guidelines. CULT-2: For projects not exempt from CEQA review, the County shall obtain a cultural resources record search from the Central California Information Center (CCIC) at California State University Stanislaus in Turlock. CULT-3: If recommended by the CCIC, the County shall retain a qualified archaeologist to complete an archaeological survey of the project site, evaluate the importance of any resources found under CEQA and to provide recommendations regarding proper handling of important resources consistent with the requirements of the CEQA Guidelines. The County shall implement the archeologist's recommendations in conjunction with project construction. CULT-4: Where avoidance of potentially significant effects is not possible, the County shall provide mitigation of potential adverse effects to the standards prescribed in the CEQA Guidelines or applicable federal guidelines, as appropriate. Mitigation measures could include a range of treatment options, including a) detailed recordation, b) undertaking historic documentary research as a means of preserving the information values of a particular site, or c) data recovery-level excavation. These measures shall be developed in consultation with a qualified archaeologist. CULT-5: If any archaeological remains are unearthed during project construction, construction within 50 feet of the find shall be halted and a qualified archaeologist shall be retained to evaluate the find and recommend steps to	LS

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		mitigate impacts to the resource pursuant to the CEQA Guidelines. The project shall incorporate the mitigation measures recommended by the archaeologist.	
Impact CULT-2: Tribal Cultural Resources	PS	CULT-6: If a local tribe, as part of consultation under AB 52, identifies a tribal cultural resource on a proposed project site, the County shall consult with the tribe and with other involved agencies to develop mitigation measures that can be incorporated in the project to avoid or minimize impacts on the tribal cultural resource. If the County and the tribe cannot agree on mitigation after a reasonable and good faith effort, the County shall develop and implement mitigation measures deemed feasible to avoid or minimize potential impacts on tribal cultural resources as part of its CEQA environmental review.	LS
Impact CULT-3: Paleontological Resources	PS	CULT-7: If any paleontological resources are encountered during project construction, all construction activity in the vicinity of the encounter shall cease until a qualified paleontologist examines the materials, determines their significance, and recommends mitigation measures that would reduce potentially significant impacts to a less than significant level, in accordance with CEQA. The County shall be immediately notified of the discovery, and the County or its contractor shall be responsible for retaining a qualified paleontologist and for implementing mitigation measures recommended by the paleontologist.	LS
Impact CULT-4: Human Burials	PS	CULT-8: In the event that human remains are encountered during earthwork, work in the vicinity of the find shall be halted and the County Coroner shall be notified to determine if an investigation of the death is required. If the County Coroner determines that the remains are Native American in origin, then the County Coroner must contact the Native American Heritage Commission within 24 hours. The Native American Heritage Commission shall identify the most likely descendants of the deceased Native American, and the most likely descendants may make recommendations on the disposition of the remains and any associated grave goods with appropriate dignity. If a most	LS

Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		likely descendant cannot be identified, the descendant fails to make a recommendation, or the landowner rejects the recommendations of the most likely descendant, then the landowner shall rebury the remains and associated grave goods with appropriate dignity on the property in a location not subject to further disturbance.	
9.0 GEOLOGY, SOILS, AND MINERAL RESOURCES			
Impact GEO-1: Faulting and Seismicity.	PS	GEO-1: Preliminary Park improvements involving new disturbance or construction on steep slopes, substantial grading and modification of existing topography and/or structure for human occupancy or in and near areas of concentrated assembly shall be designed by qualified professionals in accordance with adopted County codes and standards and subject to the review and approval of the County Engineer or Building Official. Design shall be preceded by geotechnical or soils studies as provided by adopted codes and standards or as required by County officials.	LS
Impact GEO-2: Other Geologic Hazards.	PS	Mitigation Measure GEO-1	LS
Impact GEO-3: Soil Erosion.	PS	See Mitigation Measure AIR-1. GEO-2: Construction plans and specifications for boat launch, access or other improvements in steeper areas in the Valley parks shall incorporate construction and post-construction erosion control provisions. GEO-3: A detailed erosion control plan shall be prepared for the planned opening of 500 additional acres of OHV use. The plan shall consider the nature and erodibility of soils in the area and the options for permitting public OHV use while avoiding significant erosion and sedimentation of Del Puerto Creek.	LS
Impact GEO-4: Geological Instability and Expansive Soils.	PS	See Mitigation Measure GEO-1	LS

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Impact GEO-5: Exposure to Naturally Occurring Asbestos	PS	GEO-4: Prior to opening the upper 500 acres of Frank Raines for public OHV use, the Parks and Recreation Department shall conduct a geological investigation of the area for the presence of Naturally-Occurring Asbestos, its friability, its potential for dust generation and suspension in the air as a result of OHV use, and effective options for dust control that are appropriate to the setting and proposed us. The Department shall make a determination based on the evidence, which may need to include a health risk assessment, as to whether OHV operations in this area will present a considerable health risk to visitors and park employees with or without effective mitigation measures. The Department shall open the new terrain only if potential health risks are shown to be acceptable.	
Impact GEO-6: Access to Mineral Resources	NI		
Impact GEO-7: Suitability of Soils for Wastewater Disposal Systems	PS	GEO-6: If a project proposes the use of a septic system that includes a leach field, then a soil suitability analysis shall be conducted by a qualified engineer and permitted by the County Environmental Resources Department prior to the proposed installation of the septic system. If the soil is determined to be unsuitable for a leach field, then an alternative method of wastewater disposal shall be used, such as a vaulted restroom.	LS
10.0 GREENHOUSE GAS EMISSIONS			
Impact GHG-1: Construction GHG Emissions.	LS	None required.	
Impact GHG-2: Operational GHG Emissions.	LS	None required.	
Impact GHG-3: Consistency with Applicable Plans and Policies.	LS	None required.	
11.0 HAZARDS AND HAZARDOUS MATERIALS			
Impact HAZ-1: Hazardous Materials	PS	HAZ-1: New and expanded landscaping at County parks shall involve the minimum use of herbicides, pesticides, and fertilizers required for landscape maintenance. All new	LS

Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		proposed developments and/or landscaped areas adjacent to surface waters shall include a site-specific park management plan. The plan shall include discussions of the following: • Acceptable plant materials • Acceptable fertilizers, soil amendments, and application methods • Water conservation and irrigation practices • Storm water disposal practices • Use of and application methods for pesticides, herbicides, fungicides, and insecticides • Water quality monitoring • Chemical and hazardous materials storage • Employee training program • Spill prevention control programs A list of fertilizers and pesticides proposed for use in the management plans shall be submitted to the County Agricultural Commissioner for review and comment. The description shall include the types of compounds to be used, the amounts to be applied, and form of application. The effectiveness of these management plans shall be checked through periodic monitoring of nutrients and suspended solids in nearby surface and underground water sources. Sampling shall begin prior to project construction to provide a baseline for water quality data and shall continue for a period of time to be decided by the appropriate regulatory bodies to ensure that the	

Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		project is in compliance with Regional Water Quality Control Board water quality standards. HAZ 2: The use of pesticides, herbicides, fungicides, or insecticides that are included on official State or federal lists of restricted materials shall require issuance of a Restrictive Materials Permit, issues by the County Agricultural Commissioner. All materials on this list will be subject to special use restrictions as a condition of permit issuance to ensure against significant health risks. Non-selective herbicides that affect all plants in the contact area will be limited to spot spraying as needed to kill only target vegetation and to reduce the use of chemicals.	
Impact HAZ-2: Wildfire Hazards.	PS	HAZ-3: For new parks and recreational facilities located within a Moderate Fire Hazard Severity Zone or higher, as designated by the California Department of Forestry and Fire Protection, a wildfire management plan shall be prepared. The plan should address fuel reduction management, setbacks from structures, locations of fire suppression equipment and water sources, provisions for fire breaks and trails, provisions for maintenance, closure or access limitation during times of high fire danger, evacuation plans, and road and access standards. Occupied buildings in these areas, such as shops and entrance stations, should include pressurized water systems and fire extinguishers.	LS
Impact HAZ-3: Airport and Airstrip Hazards	LS	None required.	
Impact HAZ-4: Interference with Emergency Evacuation Plans	LS	None required.	
12.0 HYDROLOGY AND WATER QUALITY			
Impact HYDRO-1: Surface Water Resources Quality	PS	HYDRO-1: The County shall comply with NPDES permit requirements for storm water discharge prior to construction activity. A Storm Water Pollution Prevention Plan shall be developed, and required protection shall be in	LS

Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		place before earthmoving work begins. Permanent water quality protection structures, if necessary, shall be in place prior to public use of the facility.	
Impact HYDRO-2: Groundwater Resources and Quality.	LS	None required.	
Impact HYDRO-3: Drainage and Runoff.	PS	HYDRO-2: Drainage plans shall be prepared with each proposed project that would include additional impervious surfaces. Drainage systems shall be designed to control runoff volumes and velocities both during and after construction and to prevent significant erosion.	LS
Impact HYDRO-4: Flood Hazard	PS	HYDRO-3: To the extent practicable, new facilities, structures, roadways, and utilities shall be located outside the 100-year floodplain. The County Parks Department shall consult with the County Department of Public Works and the County Planning and Community Development Department to ensure compliance with this measure. HYDRO-4: Stationary restroom facilities with potential exposure to 100-year floods shall be designed and constructed for flood resilience.	LS
Impact HYDRO-5: Seiche, Tsunami, and Mudflow Hazards	LS	None required.	
13.0 LAND USE AND PLANNING			
Impact LU-1: Private Land Use Conflicts and Division of Communities.	LS	None required	
Impact LU-2: Land Use Plans and Policy Considerations.	LS	None required	
Impact LU-3: Public Land Use Conflicts.	LS	None required	
Impact LU-4: Inducement of Population Growth	LS	None required.	
Impact LU-5: Displacement of Housing People	LS	None required.	

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
14.0 NOISE			
Impact NOISE-1: Exposure to Noise Levels in Excess of Standards	LS	None required	
Impact NOISE-2: Generation of Noise Levels in Excess of Standards and Permanent Noise Level Increases	PS (Woodward Reservoir Northside)	NOISE-1: Prior to development or operation of the Woodward Northside entertainment venue, the County shall consider an analysis of potential volume, timing, and duration associated with noise-generating events and their impacts on noise-sensitive receptors in the vicinity of the proposed facility. Potentially significant noise impacts that are identified shall be avoided or minimized through design of facilities and sound systems, use of sound barriers, or limits on the volume and hours of operation.	LS
Impact NOISE-3: Temporary Increases in Noise Levels	PS	NOISE-2: Consistent with the County Noise Ordinance, construction activities in the vicinity of sensitive noise receptors, such as residences, schools, day care centers, hospitals, nursing homes, and other convalescent facilities, shall be restricted to the hours of 7:00 a.m. to 7:00 p.m. All equipment used on the construction site shall be fitted with mufflers which meet applicable manufacturers' standards.	LS
Impact NOISE-4: Groundborne Vibrations	LS	None required.	
15.0 PUBLIC SERVICES AND RECREATION			
Impact SERV-1: Fire Protection	PS	SERV-1: Mitigation Measure HAZ-3 SERV-2: The Parks and Recreation Department will update fire control plans for park facilities as part of improvements to regional or neighborhood parks or fishing access points. As part of this process, the Parks and Recreation Department shall consult with the appropriate local fire district or Cal Fire in the effort to provide adequate fire protection access at each location.	LS

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		SERV-3: Permits for special public events, especially large gatherings, shall be conditioned on the establishment and maintenance of adequate fire control for the duration of the event, including setup and takedown.	
Impact SERV-2: Police Protection	PS	Mitigation Measures: In addition to Mitigation Measure SERV--2, the following measure shall be implemented:	LS
		SERV-4: Permits for special public events, especially large gatherings, shall be conditioned on the establishment and maintenance of adequate security, coordinated with the County Sheriff's Department as required, for the duration of the event, including setup and takedown.	
Impact SERV-3: Schools and Other Public Facilities.	LS	None required.	
Impact SERV-4: Parks and Recreation Facilities	LS	None required.	
16.0 TRANSPORTATION			
Impact TRANS-1: Traffic Volumes and Flow	PS (Special Events)	TRANS-1: Permit applications for high-attendance public events shall include provisions for adequate traffic management.	LS
Impact TRANS-2: Congestion Management Programs.	LS	None required.	
Impact TRANS-3: Air Traffic	LS	None required	
Impact TRANS-4: Safety Hazards and Emergency Access.	LS	None required.	
Impact TRANS-5: Non-Motor Vehicle Transportation.	LS	None required	
17.0 UTILITIES AND SERVICE SYSTEMS			
Impact UTIL-1: Wastewater Services and Facilities	PS	UTIL-1: The County shall design any improvements requiring wastewater treatment facilities to incorporate all applicable requirements of the County Environmental Resources	LS

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		Department.	
Impact UTIL-2: Water Services and Facilities	LS	None required.	
Impact UTIL-3: Stormwater Services and Facilities	LS	None required.	
Impact UTIL-4: Solid Waste	LS	None required.	
Impact UTIL-5: Energy and Communication Systems	LS	None required.	

3.0 PROJECT DESCRIPTION

3.1 PLAN BRIEF

Stanislaus County, through its Parks and Recreation Department, operates and maintains parks and recreational facilities throughout the County. These include five regional parks, 22 neighborhood parks, and various other public open spaces. Management and development of the County's existing park system is governed by a Parks Master Plan adopted in 1999. The population of Stanislaus County has grown substantially since that time, and the Plan, based on the management concerns and projected future park and recreation needs of the time, has become outdated.

The Parks and Recreation Department and its consulting team have prepared an updated Parks Master Plan which will govern parks management and improvement for the 20-year period 2018-2038. The updated Parks Master Plan describes the current County parks management setting including an inventory of the size and features of existing parkland units, assesses the need for park improvements and development during the planning period, describes a range of park management "Best Practices," establishes design guidelines for park improvements, and makes a series of recommendations for improvement of parks and park management, including an Historic District Master Plan for La Grange.

The Parks Master Plan addresses planned improvements to recreational facilities during the 20-year planning period. These planned improvements are summarized in Chapter 7 of the Parks Master Plan, listed in the Parks Master Plan tables included in Appendix A of this PEIR, and shown as to location in Figures 3-1 through 3-4 of this chapter. The purpose of this PEIR is to address the potential environmental effects of adoption of the updated Parks Master Plan and the relative effects of reasonable alternatives. The PEIR concerns itself primarily with the physical improvements expected to be made as a result of Plan adoption and their direct and indirect effects on the environment.

3.2 PLAN OBJECTIVES

According to the updated Parks Master Plan, parks and recreation facilities are invaluable parts of a vibrant community, which are important to individual and community health. Recognizing this, the Stanislaus County Board of Supervisors has described the purposes of the Parks and Recreation Department as follows:

> The Parks and Recreation Department acquires, develops, and maintains recreation areas serving every segment of our society, including the disabled and the economically disadvantaged, in ways that will provide the best possible experience for people to enjoy the outdoors at the most reasonable cost.

The updated Parks Master Plan is intended to help achieve these purposes by assessing needs, evaluating the existing park inventory and making recommendations that will guide future decision-

making with respect to parks and recreation while increasing the economic viability of park facilities.

A more specific objective of this PEIR is to facilitate environmental review of improvement projects included in the Parks Master Plan, consistent with CEQA requirements. This would be accomplished by identifying the potential environmental effects of future projects and specifying mitigation measures that could reduce these potential effects to a less than significant level. Projects for which adequate mitigation can be described in the PEIR could qualify for expedited environmental review under the "tiering" provisions of CEQA as described in detail in Section 3.4. The PEIR may also be useful in reducing future environmental review needs by identifying projects that would be exempt from CEQA analysis, either by statute or categories defined in the CEQA Guidelines.

3.3 PLAN DETAILS

The Parks Master Plan is the result of a planning process extending over most of the year 2017, which included substantial efforts by County staff and consultants to gather information, engage the public in conversation regarding parks and recreation preferences, analyze needs and develop recommendations for park management planning and improvement, going forward. The basis for future park planning in the Plan's first four chapters:

> Chapter 1 Introduction, which describes the purpose and organization of the Master Plan, the preparation process and the Plan's relationship to the recently-adopted County General Plan and the StanCOG Non-Motorized Transportation Master Plan.
>
> Chapter 2 Planning Context, which describes the population, demographics, health trends, regional character and changes since the adoption of the 1999 Plan.
>
> Chapter 3 Inventory, which provides a detailed description of the location, size and facilities provided at each of the County's existing parklands, recreation sites and other open space.
>
> Chapter 4 Needs Assessment, which describes the community outreach process followed in the development of the Parks Master Plan and document the findings of that process

The remainder of the plan establishes a set of best practices and design guidelines for design and construction of future parks, recreation and open space facilities. These specifications include park per unit population standards, noting that the existing inventory of 106 acres of neighborhood parks is approximately 200 acres below the established County standard.

Chapter 7 Recommendations synthesizes County resources, facilities and identified parks and recreation needs into specific recommendations for future improvements to parks and recreation facilities. These include detailed recommendations for improvements to each of the regional parks, the community and neighborhood parks and the special-interest parks as well as minor improvements to other open space areas. These detailed lists are shown in tables in Appendix A and summarized below.

Regional Parks. Planned improvements at regional parks require individual planning to take advantage of the recreation opportunities at each of these unique sites. These opportunities include hunting, fishing, off-highway vehicle use, historic and cultural resources, sensitive habitat, water play and sports at reservoirs used for irrigation and drinking water. Planned improvements will

include increases in walking, hiking, bicycling, and equestrian trails, increasing maintenance of restroom facilities, increasing the number of restroom/shower facilities, expanding WiFi, improved tree maintenance, and provision of an outdoor amphitheater within each park to support special events, educational outings, and interest group meetings.

Frank Raines Regional Park: Approximately 500 acres of the northwestern area of the regional park would be opened to OHV use. The specific features of the proposed new OHV site currently are not available. A new amphitheater that would seat 50-100 people would be constructed in the existing camping area. New restrooms, with septic systems, also would be installed in the camping area. An existing recreation hall adjacent to the camping area would be restored.

Services to the day use area would be upgraded in two phases. The first phase proposes to upgrade potable water service by adding a second 10,000-gallon tank, upgrading the existing water treatment facility to a capacity of 15-20 gallons a minute, and extending potable water infrastructure to the existing day use area, among other improvements. The second phase would upgrade wastewater services by adding a restroom and lift station. It also would involve demolition of an existing baseball field and extending camping facilities to the field site.

La Grange Regional Park: The primary goal is the completion of a Historic District Master Plan to manage the historic resources in the park. The historic/cultural buildings are located mostly in the northern portion of the park along the Tuolumne River, although a historic gold dredge is located in the southwestern corner. Repair work for the historic buildings is proposed, involving restoration of wood and adobe buildings, along with the addition of ADA-compliant paths where required to connect historic district sites.

Campsites are proposed to be added in the OHV-oriented southern portion of the park, along with electrical and water hookups. The existing entrance station would be replaced, and the existing asphalt parking area would be repaired.

Laird Regional Park: Among the new facilities proposed for construction are a paved boat ramp with a paved parking are along the San Joaquin River, fishing docks downstream from the new boat ramp, a playground, and a 50-person amphitheater for small group gatherings. Other proposed improvements would include paving road and parking areas and the formalizing of trails and addition of signage and wayfinding.

Modesto Reservoir Regional Park: On the west side of the regional park, a new well is proposed between Lakeview and Baptista Point that would produce approximately 800 gallons of water per minute. This well would be connected to the existing water line at the north end of Lakeview to allow for potable water to be run north to all existing vaulted restrooms. In the same area as the proposed well, a group camp facility is proposed to be developed. A new picnic area with barbeques and new fishing docks also are proposed. West side improvements would include grading hillsides near Vivian and Mud Hen Cove to expand existing camping and day use areas.

On the south side, existing campgrounds would be improved with the expansion of a loop to accommodate 25-50 campsites, new restrooms/shower facilities, electrical hookups in Loop D, trees and irrigation to Loops C and D, a walking trail, an informal play area, and a potential kids' fishing pond. Also proposed in the existing campground area is an amphitheater that could accommodate 50-100 people for small group gatherings.

An enlarged entrance station is proposed, with a temporary parking area, a turnaround, and office storage space. A running/biking trail, with a paved surface and mile marker signage, is proposed for construction along the west and south shore of the reservoir, with an extension to a portion of the north shore.

Woodward Reservoir Regional Park: A site for large events has been proposed on the north shore of Woodward Reservoir. This facility would include a proposed 7,500-seat amphitheater, camping and day use facilities and other improvements needed to accommodate large entertainment and multi-day festival events. Initial improvements are planned to include entrance station, access and road improvements; near-term event promoters would be responsible for water, wastewater and utility services. Long-range improvements may include on-site water, wastewater and electrical service as feasible; the Master Plan calls specifically for study of a wastewater treatment plant on-site. This facility is also being evaluated separately from the Parks Master Plan. Improvements to Woodward Reservoir have been proposed at five campgrounds at Bayview Point (T, U, V, W and Y) in a standalone CEQA document.

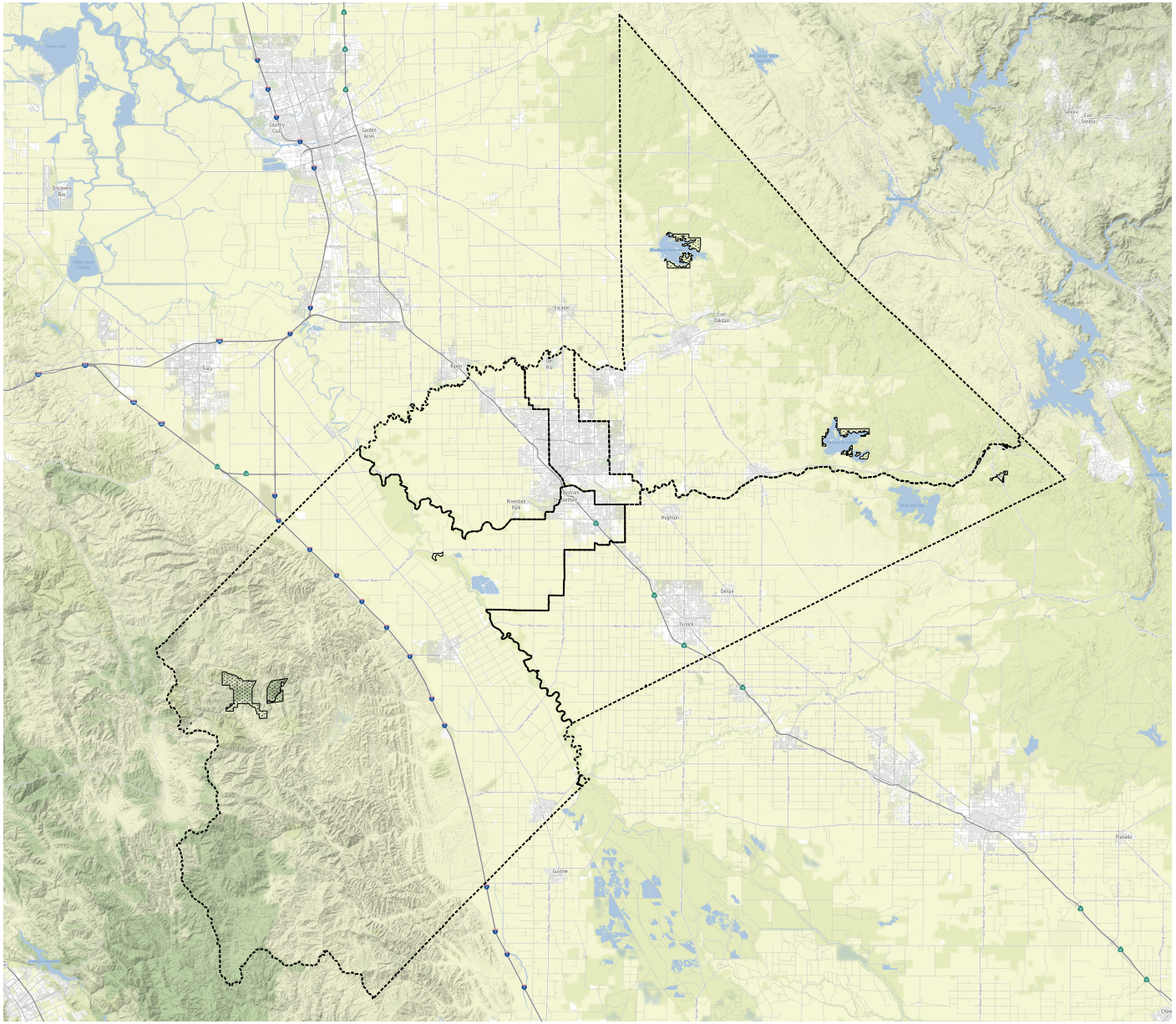
Elsewhere at Woodward Reservoir, planned improvements would include the addition of an event awning, RV dump services, underground power, a water well, showers and restrooms at Bayview Point. These include a new well, ADA-compliant showers and restrooms, and additional campsites.

Neighborhood Parks. Improvements at neighborhood parks will include addition of shade structures, paved walking circuit paths, adult exercise options/workout stations, "dog parks," night lighting at selected locations, new and refurbished play areas and other park furnishings.

The Master Plan also includes a commitment to improving the County's neighborhood park acreage shortfall. The Plan identifies a shortfall in existing neighborhood park acreage in the unincorporated area as compared to existing County standards; the Plan provides for the development of approximately 200 acres of new neighborhood parks in the unincorporated area during the planning period; the equates to approximately 20-40 neighborhood parks of average size. Individual park sites are not identified in the Master Plan but will be identified and developed during the planning period. These may be standalone County projects or developed in conjunction with permitted private land development.

Special Interest Parks. Improvements at these largely fishing-oriented facilities will include improvements to provide ADA accessibility, boat launch ramps, adequate lighting, better litter control, paving of access and parking areas and improved signage.

The remainder of the plan is devoted to prioritization, programming and financing of needed facilities.



SOURCE: O'Dell Engineering

LEGEND

--- Supervisor District

Regional Park

0 3.75 7.5 11.25 15 18.75 miles

BaseCamp Environmental

Figure 3-1
REGIONAL PARKS

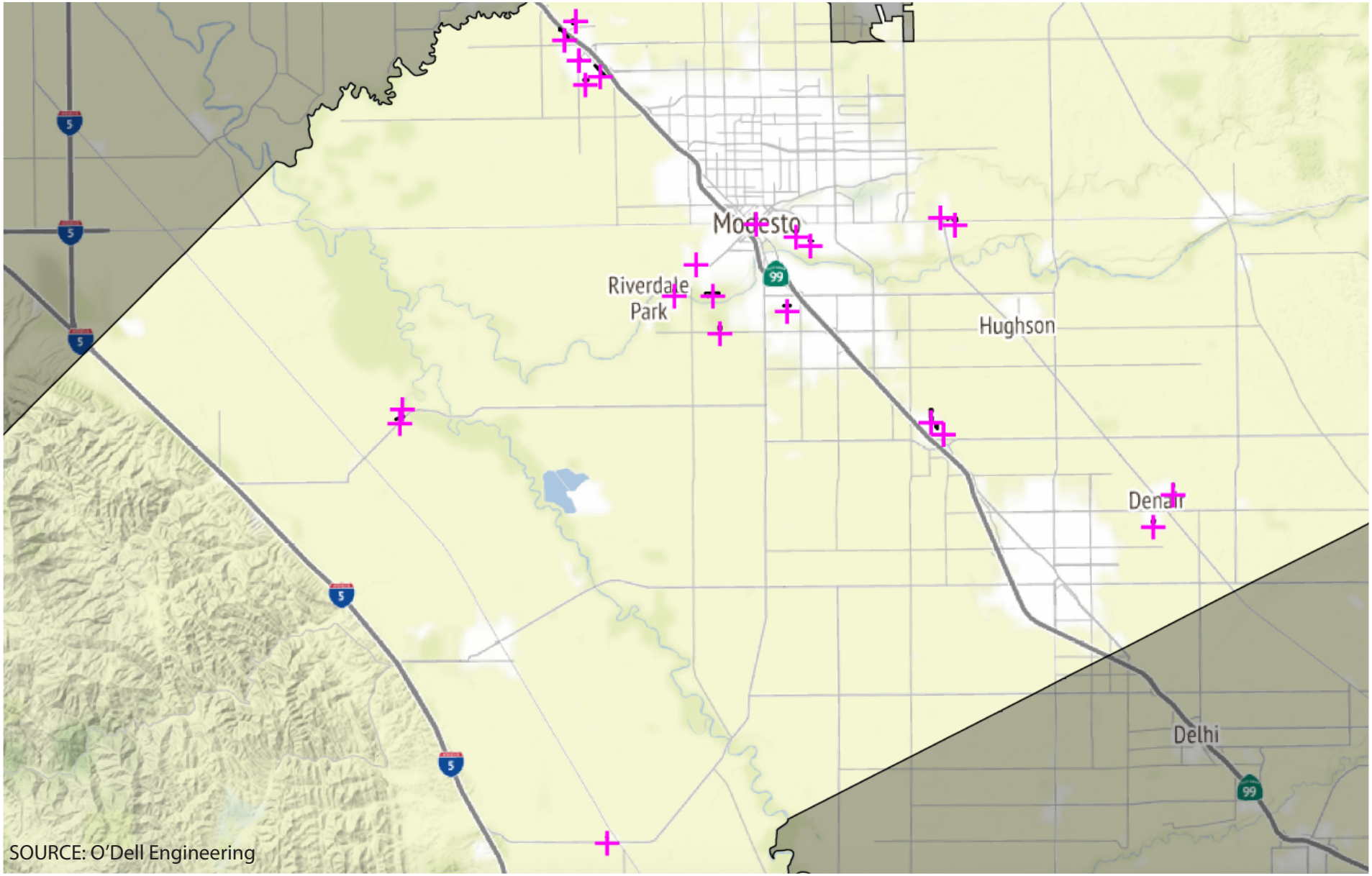
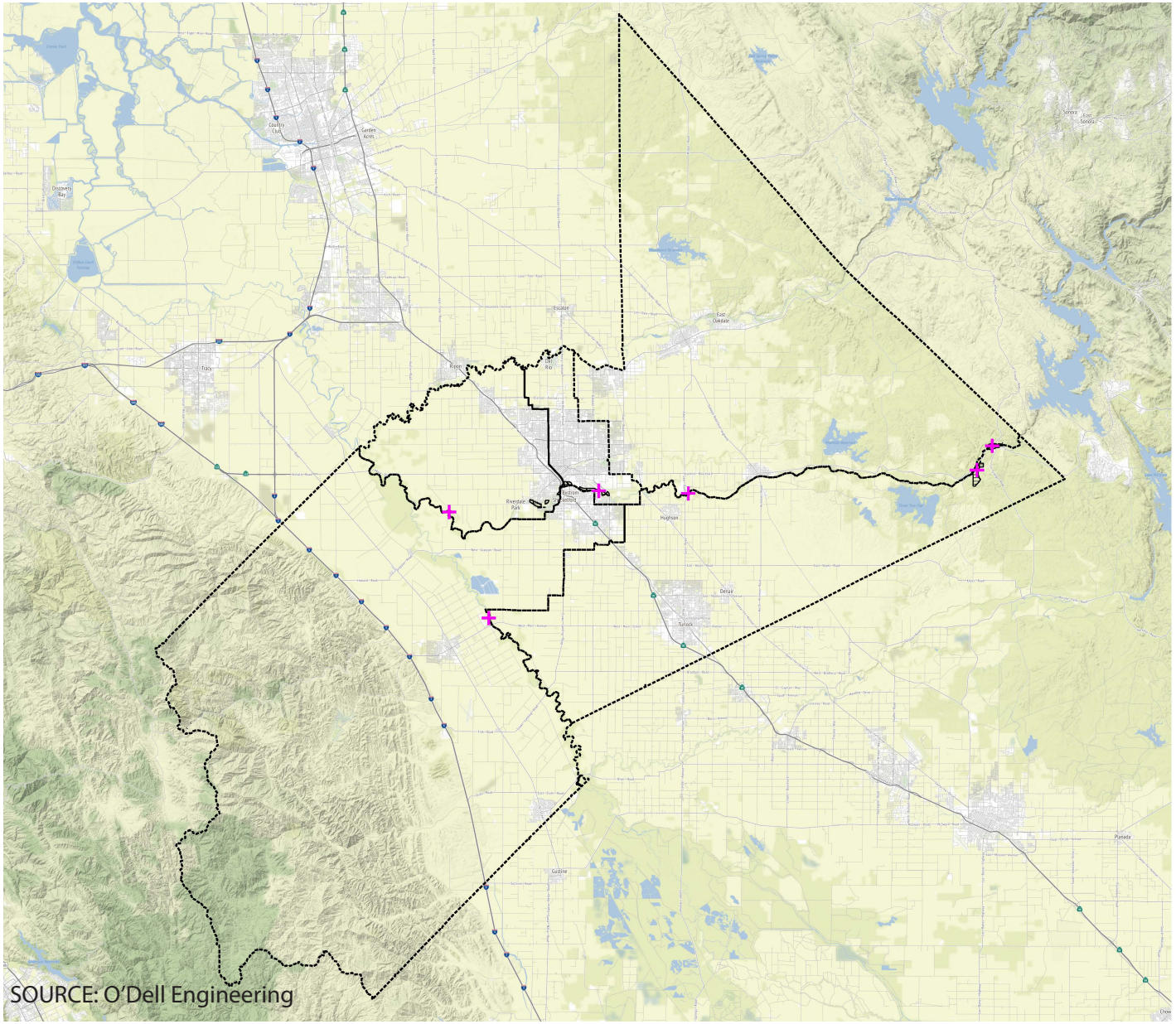
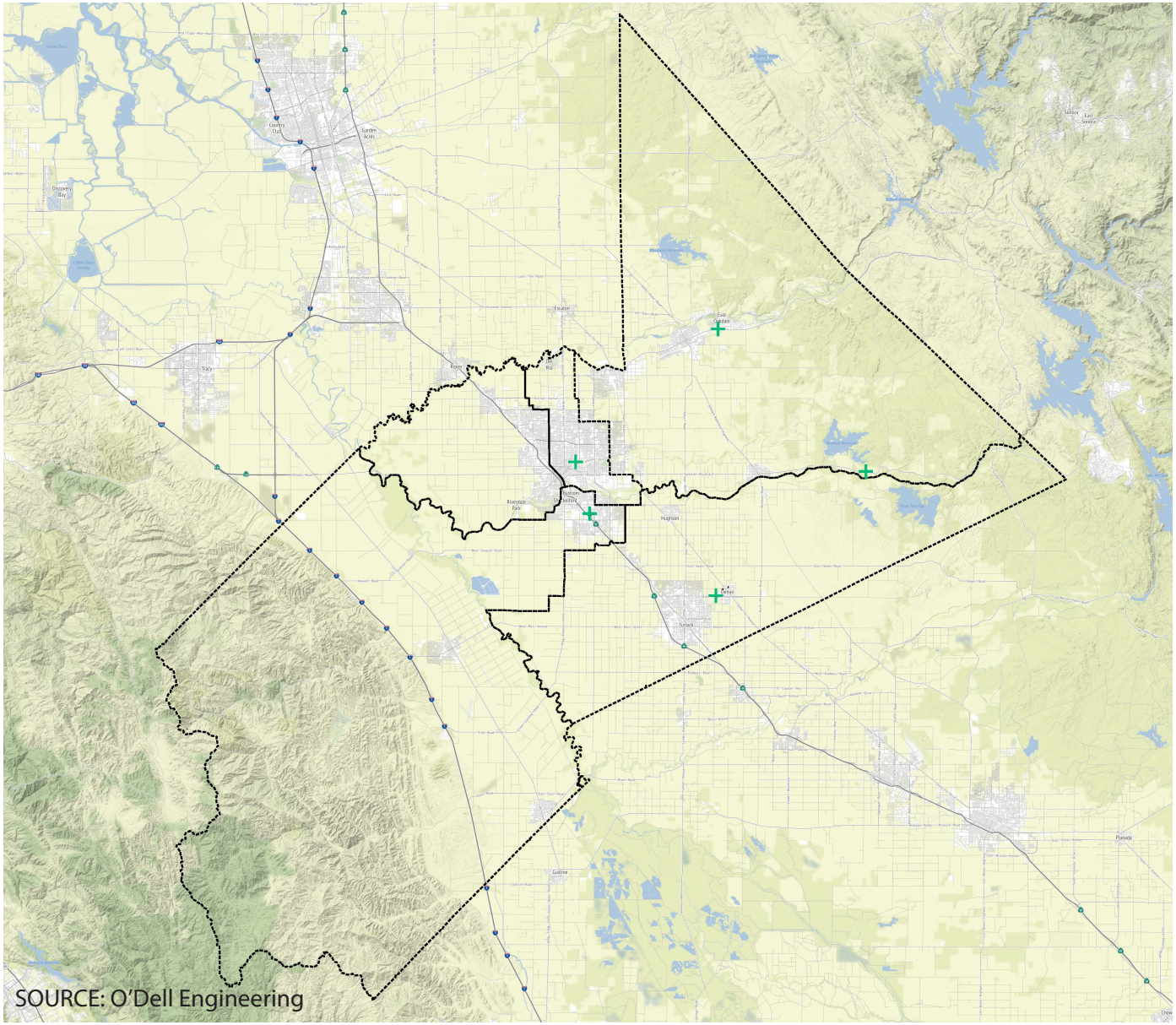


Figure 3-2
NEIGHBORHOOD PARKS



BaseCamp Environmental

Figure 3-3
SPECIAL INTEREST PARKS



BaseCamp Environmental

Figure 3-4
MISCELLANEOUS PARKS

3.4 ENVIRONMENTAL REVIEW OF FUTURE PROJECTS USING THE PEIR

3.4.1 Levels of CEQA Environmental Review

A principal objective of the PEIR is to consider the overall, or cumulative, effects of Master Plan implementation as described in this chapter, and to provide a foundation for subsequent CEQA environmental review of projects associated with the Parks Master Plan. It is understood that many of the proposed improvements may be exempt from CEQA review, while other improvements would require intensive review. The purpose of this section is to provide guidance to Department of Parks and Recreation staff in order to facilitate future environmental review of park projects. A general summary of the types of CEQA environmental review that are likely to be required in the review of parks and recreation projects is provided below:

Project Qualifies for a CEQA Statutory Exemption. Statutory exemptions are exemptions from CEQA environmental review that are created by legislation. Projects that qualify for a statutory exemption under CEQA are specifically described as exempt in Article 18 Statutory Exemptions of the CEQA Guidelines and include:

- Ministerial projects (CEQA Guidelines §15268). A ministerial project is a project for which a discretionary approval from a decision-making body (e.g., County Board of Supervisors, County Parks and Recreation Commission) is not required. The decision to proceed with a ministerial project involves only the use of fixed standards or objective measurements, and little or no personal judgment is involved. An example is the issuance of a building permit for an overall project that has been reviewed and approved by a board.

- Emergency repair projects to maintain service (CEQA Guidelines §15269).

- Projects for properties or facilities damaged or destroyed by a disaster that has been declared by the Governor (CEQA Guidelines §15269(a)).

- The installation of new pipeline or maintenance, repair, restoration, removal, or demolition of an existing pipeline as set forth in Section 21080.21 of the Public Resources Code, as long as the project does not exceed one mile in length (CEQA Guidelines §15282(k)).

Project Qualifies for a CEQA Categorical Exemption. Categorical exemptions are exemptions for classes of projects found by the State Secretary of Resources to not have a significant impact on the environment. The CEQA Guidelines identify classes of projects that are conditionally exempt from CEQA review. The classes of projects which are categorically exempt that may be applicable to projects implemented as part of the Parks Master Plan include:

- Class 1 – Existing Facilities (CEQA Guidelines §15301). This consists of the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of use beyond that existing at the time of the lead agency's determination.

- Class 2 – Replacement or Reconstruction (CEQA Guidelines §15302). This consists of replacement or reconstruction of existing structures or facilities where the new structure will be located on the same site as the structure replaced and will have substantially the same purpose and capacity of the structure replaced.

- Class 3 – New Construction or Conversion of Small Structures (CEQA Guidelines §15303). This consists of construction and location of limited numbers of new, small facilities or structures; installation of small new equipment and facilities in small structures; and the conversion of existing small structures from one use to another where only minor modifications are made in the exterior of the structure.

- Class 4 – Minor Alterations to Land (CEQA Guidelines §15304). This consists of minor public or private alterations in the condition of land, water, and/or vegetation that do not involve removal of healthy, mature, scenic trees except for forestry or agricultural purposes.

- Class 11 – Accessory Structures (CEQA Guidelines §15311). This consists of construction or placement of minor structures accessory to existing commercial, industrial, or institutional facilities, including but not limited to on-premise signs, small parking lots, and placement of seasonal or temporary use items in generally the same locations from time to time in publicly owned parks or other facilities designed for public use (e.g., lifeguard towers, portable restrooms).

- Class 16 – Transfer of Ownership of Land in Order to Create Parks (CEQA Guidelines §15316). This consists of the acquisition, sale, or other transfer of land in order to establish a park where the land is in a natural condition or contains historical or archaeological resources and either (a) the management plan for the park has not been prepared, or (b) the management plan proposes to keep the area in a natural condition or preserve the historic or archaeological resources.

- Class 31 – Historical Resource Restoration/Rehabilitation (CEQA Guidelines §15331). This consists of projects limited to maintenance, repair, stabilization, rehabilitation, restoration, preservation, conservation, or reconstruction of historical resources in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings, by Weeks and Grammer (1995).

It should be noted that even if a project qualifies for a categorical exemption, it may still be subject to more detailed CEQA review if a fair argument can be made that the project would have a significant environmental impact should the project be determined to have "unusual circumstances" that distinguish it from other projects of its type. This can be a complex matter, which may require input from an environmental or legal professional.

In the event that the Parks and Recreation Department determines that a project can be processed under a CEQA exemption, then that decision should be documented in the project file. To achieve greater legal protection, a Notice of Exemption should be completed and filed with the County Clerk and/or the State Clearinghouse as provided in CEQA Guidelines §15061.

CEQA Coverage can be Provided by the Program EIR. If a park improvement project is not clearly exempt from CEQA, the potential environmental effects of the project may already have been addressed in the various chapters of the PEIR. In this case, the Parks and Recreation Department staff should review the project in light of the PEIR and determine if potential environmental impacts of the project have already been analyzed and mitigated in the PEIR. If so, the County should document this fact and establish for the record the County's commitment to implement the feasible mitigation needed to avoid or minimize significant environmental effects described in the PEIR that would apply to the project. PEIR mitigation measures may require the completion of biological, cultural, or other technical studies as appropriate to further analyze

specific environmental concerns and define mitigation measures. Options for completing CEQA documentation using the PEIR would include the following:

If Project Effects Are Adequately Addressed in the PEIR

The CEQA document shall conclude that the project has been adequately addressed in the PEIR, the project will not involve any new or potentially more severe environmental effects than were identified in the PEIR, and no new mitigation measures are required. No public review or public notice is required. The CEQA document will be made available to the County and to the public on request, and placed in the project file. The County may approve the project in accordance with CEQA Guidelines §15168 without further environmental documentation.

If Project Effects Are Adequately Addressed in the PEIR with Minor Changes

If the PEIR adequately describes the potentially significant environmental effects of the project with only minor changes, then a brief Addendum to the PEIR should be prepared pursuant to CEQA Guidelines §15164. The Addendum will provide substantial evidence that the environmental effects of the project have been adequately addressed in the PEIR, the project will not involve any new or potentially more severe environmental effects than were identified in the PEIR, and no new mitigation measures are required. No public review is required. The County may approve the project in accordance with CEQA Guidelines §15168 with reference to CEQA Guidelines §15162 through §15164.

If a Project Involves Effects not Identified in the PEIR and Requires Adoption of a Mitigated Negative Declaration

If a project would involve new significant environmental effects or mitigation measures not addressed in the PEIR, but the environmental effects can be reduced to a level that is less than significant with the implementation of mitigation measures, then a Mitigated Negative Declaration may be prepared based upon a worksheet or an Initial Study. The Mitigated Negative Declaration must address the new effects and/or mitigation measures, incorporate the applicable PEIR mitigation measures, and indicate the County's commitment to implement the mitigation measures. Public notice and public and agency review of the Mitigated Negative Declaration would be required as specified in CEQA Guidelines §15072 and §15073. Prior to project approval, the County will need to consider comments received during the public review period and adopt the Mitigated Negative Declaration. The adoption procedure includes making the findings specified in CEQA Guidelines §15074 and adopting a Mitigation Monitoring and Reporting Program (MMRP) as required by CEQA Guidelines §15097.

If a Project Involves Impacts that Cannot be Mitigated in a Negative Declaration and Requires an EIR

The County may need to prepare a Focused, Supplemental, Subsequent, or new EIR, consistent with the CEQA Guidelines, if any of the following conditions apply:

- The project is substantially different from the activities described in the PEIR,
- There are substantial changes in the conditions described in the PEIR,
- There are new and potentially significant environmental effects not addressed in the PEIR,

- The project would involve significant effects that are substantially more severe than described in the PEIR, or

- The project would require additional mitigation measures not described in the PEIR.

and these environmental issues cannot be addressed in a Negative Declaration. Depending on the type of EIR, a NOP may need to be prepared (CEQA Guidelines §15082). Public review of any EIR is required, as specified in CEQA Guidelines §15087. A Final EIR will need to be certified by the County prior to a decision on the project. The County will need to make the findings required by CEQA Guidelines §15091 through §15093 and to adopt a MMRP as required by CEQA Guidelines §15097.

3.4.2 Project Activities and Likely Level of CEQA Review

The Parks Master Plan proposes a variety of projects to implement its goals and objectives. Many of these projects likely would require further CEQA review, though the level of the review would vary with the project. Other projects likely would be exempt from CEQA review:

Projects that likely would have environmental impacts that would necessitate further CEQA review include, but are not limited to, the following:

- Major new facilities and development (e.g. large group facility at Woodward Reservoir).

- Some new facilities and development or groups of facilities, such as amphitheater, campsites, dog parks, etc.

- Projects involving significant grading and landscape changes.

- Docks, boat launches, and other facilities in or along waterways and reservoirs.

- New wells or other water supply facilities, new wastewater treatment facilities.

- Restoration of historic facilities not otherwise consistent with the requirements of the Class 31 exemption described above.

Projects that likely would be exempt from CEQA review include:

- Most neighborhood park improvements in existing developed park areas; e.g., installation of playgrounds, picnic facilities, shelters, barbeques, etc.

- Paving existing parking areas (with no expansion)

- New self-contained restrooms.

- Replacement and restoration of existing facilities (with negligible or no expansion).

- Restoration of native vegetation.

3.5 PERMITS AND APPROVALS

Parks Master Plan projects also may require permits from other agencies. Table 3-6 below lists some of these agencies from whom permits and approvals for which individual projects may be required. This is not a comprehensive list of agencies; the permitting agencies would depend on the jurisdiction in which the project is located and the environmental issues affected. Permits and approvals would vary for each project; for example, a project on a site that does not contain wetlands or other waters would not require any permits from the U.S. Army Corps of Engineers.

TABLE 3-6
AGENCIES WITH POTENTIAL PERMITTING JURISDICTION

Agency	Permit/Approval Requirement
Federal Agencies	
U.S. Army Corps of Engineers	Clean Water Act Section 404 Permit: Dredge or fill of jurisdictional Waters of the U.S. and wetlands
U.S. Fish and Wildlife Service	Endangered Species Act consultation
National Marine Fisheries Service	Endangered Species Act consultation (fish)
State Agencies	
Central Valley Flood Protection Board	Work near jurisdictional waters, including river encroachment
Department of Fish and Wildlife	California Endangered Species Act consultation; Lake and Streambed Alteration Agreement (LSAA) for work affecting the bed, banks or channel of lakes and streams
Department of Transportation	Highway encroachment permit (crossing and linear)
California State Lands Commission	Easements over state lands, including submerged lands
Regional Water Quality Control Board	Clean Water Act Section 401 water quality certification, in connection with Section 404 permit
Office of Historic Preservation	National Historic Preservation Act Section 106 review and compliance
Local Agencies	
Special Districts	Right-of-way encroachment
San Joaquin Valley Air Pollution Control District	Compliance with Indirect Source Review for projects subject to rule

4.0 AESTHETICS AND VISUAL RESOURCES

ENVIRONMENTAL SETTING

Aesthetics and Visual Resources Background

The aesthetic value assigned to a site or landscape varies significantly from person to person, depending on that person's ideas and perceptions. This makes aesthetic and visual resource impacts among the more difficult environmental impacts to assess. In spite of the inherent difficulties, methods for qualitatively assessing aesthetic values have been developed, which will be used to evaluate the key aesthetic and visual resources effects of the Master Plan.

In general, the aesthetic value of a geographic area is a function of:

1) Landscape character,

2) Distance between the affected landscape and viewer groups, and

3) Number, sensitivity, and exposure time of viewers.

Landscape character may be categorized three ways: distinctive, common, or minimal. "Distinctive" landscapes include those with unusual topography or vegetation, or unique or aesthetically pleasing design or landscaping elements in the case of urban landscapes. "Common" landscapes are those whose elements, whether natural or urban, are prevalent and relatively uniform in the analysis area. "Minimal" landscapes would include extensive areas of very repetitive or uninteresting elements, and areas highly disturbed by development activities.

Viewer distance is directly related to the visual importance of positive or negative elements of landscape character from the viewer perspective. Viewer distance "zones" may be defined in terms of foreground, middle-ground and background areas. Foreground areas may vary from a few feet to a few hundred feet of distance, while middle-ground distance may range from a few hundred feet to a few miles. Background distances involve usually a few miles or more.

The sensitivity of potential viewer groups ranges from low to high, depending on the nature and expectations of viewers and the duration of views of the area—for example, views obtained from a moving vehicle as compared to views from a fixed position. Sensitivity would also vary with the type, amount, and duration of public use of potentially-affected land uses and transportation corridors. These variables are too wide-ranging to properly describe within the scope of this document. Examples of sensitive viewer locations would include a water recreation site focused on active sports such as motor boating and fishing or a nature-focused, passive recreation facility. Aesthetic expectations might be expressed as "moderate" in the former example and higher in the latter.

County Aesthetic/Visual Resources

Stanislaus County includes several overlapping landscape types with widely-varying visual sensitivity levels. Three general landscape types can be described as follows: 1) the agriculture and urban area-dominated flatlands of the Central Valley, 2) the oak woodlands and grazing lands of the Sierra Nevada Foothills, and 3) the varied landscapes of the Coast Range Foothills. The aesthetic characteristics of the various landscape types are described below, along with the County park facilities located within them.

Central Valley

The rural portions of the Central Valley vary widely in use, but they typically include extensive crop lands, orchards, vineyards, and rural residential development ranging from widely-spaced single homes on farmland to small subdivided areas. Landscape character of this type is common throughout the Valley. Most of the rural roadways are two-lane roads; views along these alignments are generally dominated by agricultural landscapes and roadside residential and other development. Along State highways, inter-city arterials, and other high-volume rural roads, the visual landscape is frequently dominated by the presence of the transportation facility itself and its wide, cleared right-of-way.

Within urbanized Central Valley areas, aesthetic variables include quality and variety in architecture; presence or absence of unusual, strong, or attractive design elements; and the amount, type, and height of landscaping plantings, including groves of large trees. Visual/aesthetic character varies widely within urban areas, based on the type of use and the age of urban development. Aesthetic sensitivity in urban areas is a function of both land use and viewer expectations. Users of industrial and commercial areas are oriented to the specific business purposes of these areas, although visual appearance is a factor in their marketing appeal. In residential areas, property enjoyment, including aesthetic enjoyment, is of greater importance. On and near recreational sites, visual/aesthetic considerations assume a prominent role.

County parks and recreational facilities in Valley areas consist mainly of neighborhood and community parks in unincorporated communities. These parks, which are typically turfed and equipped with benches, tables, playground equipment, pools and restrooms, may represent an important open space resource for nearby residents. Other park facilities are located adjacent to the rivers and provide fishing, boating, camping in some cases and both active and passive open space. One regional park, Laird, is located along the San Joaquin River east of the community of Grayson. In addition, fishing access points are located along the Tuolumne River, the San Joaquin River and the Delta Mendota Canal.

Sierra Nevada Foothills

The Sierra Nevada foothills can be generally characterized as upland grazing land, oak woodlands, and brush lands located on rolling to mountainous topography. In recent years, extensive orchard and vineyard development has occurred in the lower foothills in eastern Stanislaus County. Development in this area is generally low density, rural and recreation-oriented in nature. Road systems are predominantly curvilinear and sloping with evident cut-and-fill areas. Evidence of historical and recent mining and water resource development is common in the area. Landscape variety, diversity of vegetation, and topographical relief vary widely in this area, resulting in moderate to high visual/aesthetic values.

Notable visual features in the foothills area include ridge lines, contrasting vegetation patterns, grass-covered slopes, and rock outcrops. Foreground visual features include residences and outbuildings, including those from the historic period. Expansive views are available in selected hillside and other locations. Traffic along travel corridors is generally light, although some roads, including the State highways, sustain commuter traffic.

Aesthetic sensitivity within the foothill area varies from low to high, depending on residents' sense of ownership or interest in the area. In most areas, motorist interests can be considered generally utilitarian, however on the State routes and rural roads leading out of County, landscape variety and the presence of rivers and other water resources is increased, and recreational pursuits assume more importance and sensitivity increases. Examples might include SR 132 east of Waterford and SR 108/120 east of Oakdale. Residents can be protective of the existing rural or small-town character. In some areas, the focus of attention may be on preservation of natural landscapes.

In the Sierra Nevada foothills, County park facilities include the Modesto Reservoir Regional Park, the Woodward Reservoir Regional Park, and the Turlock Lake fishing access point. Expansive views of foreground reservoir waters and background foothill landscapes are available throughout the regional parks and key to the recreational aesthetic of these areas. All three of these facilities are focused around reservoirs created in the area. The La Grange community includes a wide range of buildings and features related to Gold Rush, which are of aesthetic and historical interest, as well as more-recent mining activities. La Grange Regional Park, which is an OHV area located south of La Grange along County Road J59, also is located in the Sierra Nevada foothills, along with the nearby Basso Bridge, Kiwanis Park, and Joe Domecq Wilderness Area. Landscape character at LaGrange Regional Park is degraded by the level of OHV use, but recreational use of this area less-dependent on landscape character than on the quality of landscape for OHV use.

Coast Ranges

The Coast Ranges are similar in visual character to the Sierra Nevada foothills. This area can be generally characterized as upland grazing land, oak woodlands, and brush lands located on rolling to distinctive mountainous topography. Visual features are similar: contrasting vegetation patterns, grass-covered slopes, and rock outcrops. However, there is significantly less development in the Coast Ranges than in the Sierra Nevada foothills. Few roads traverse this area, and the only community of significance is the Diablo Grande development southwest of Patterson. Some agricultural activity occurs at the edge of the foothills, but most of the area is used for grazing when it is used. Also, there are no notable rivers that flow through this area; most water features consist of creeks that typically are dry after the rainy season ends.

As with the Sierra Nevada foothills, aesthetic sensitivity within the Coast Ranges varies from low to high, depending on the residents' sense of ownership or investment in the area. Given the limited development in the area, the focus of attention likely would be on preservation of the natural landscape. Due mainly to the lack of population and road access, there are few County parks in the Coast Range area. Frank Raines Regional Park along Del Puerto Road is an OHV facility that provides a variety of terrains as well as camping facilities.

Scenic Routes

While any number of areas within the County are potentially sensitive to visual/aesthetic impact, attention is typically paid to areas and travel routes with the highest probable viewer expectations. These would include recreational sites and destinations, recreational travel corridors, and designated natural areas. State Routes (SRs) accessing recreational areas include SR 108 and SR 120 east of Oakdale, and SR 132 east of Waterford.

The State of California has designated State Scenic Highways under a program established in 1963. There is one State Scenic Highway that has been designated within Stanislaus County – Interstate 5 from the Merced County line to the San Joaquin County line (Caltrans 2015). The County General Plan has not designated any local scenic routes.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

General Discussion of Aesthetic Impacts

Potential aesthetic and visual resource impacts of a project are associated with the amount of negative "contrast" between existing and post-project landscape character that would result from Master Plan-related activities. Significant impacts may occur when a project would produce negative visual "contrast" as generally experienced by a group (i.e., neighborhood, community) of people with established aesthetic expectations. The perceptions of a small or non-representative portion of an affected group would not ordinarily be considered significant. The subjectivity of aesthetic impacts will always need to be a consideration in future environmental review of planned recreation improvements.

Significance Thresholds

According to Appendix G of the CEQA Guidelines, a project may have a significant impact on the environment if it would:

- Have a substantial adverse effect on a scenic vista,
- Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway),
- Substantially degrade the existing visual character or quality of the site and its surroundings, or
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Impact AES-1: Scenic Vistas

Most visual impacts of projects associated with the Parks Master Plan would be confined to foreground and near-middle ground areas, as discussed in AES-2 and AES-3, below. There are few readily viewable vistas in Stanislaus County. Due to topographical variance, distant views from the Sierra Nevada foothills and Coast Ranges are not necessarily available. From the Central Valley

portion of Stanislaus County, some distant views of the Sierra Nevada and Coast Ranges can be accessed, but these views are not widely available. In urban areas, development has largely obstructed such views. In rural areas, more vistas can be seen, but even in these areas, orchards and existing electrical infrastructure can intrude upon vistas.

At present, no existing parks have facilities that substantially intrude upon vistas. Planned improvements do not include the construction of any large structures; thus, no significant view impediments are anticipated from future development. The effects of Master Plan development will be beneficial; they will improve the appearance and attractiveness of parklands, encouraging active and passive recreational enjoyment without obscuring vistas.

As described above, views are already obstructed in most places by existing structures, orchards, electrical infrastructure or topography, and park improvements would not interfere with currently existing vistas. Impacts of the Parks Master Plan on scenic vistas are considered less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact AES-2: Scenic Resources

In general, landscapes in Stanislaus County are fairly common and do not contain scenic resources that are distinctive, particularly in the valley portion. The more distinctive scenic areas in the Valley include rivers and streams and associated floodplain and riparian areas. Laird Regional Park's riverside location permits users to enjoy the scenic San Joaquin River. The Sierra Nevada foothills and Coast Ranges contain more distinctive landscapes including hills, lakes, and woodlands. Four of the five regional parks are in these areas, as well as the historic community of La Grange, which is would be preserved and restored as part of the Parks Master Plan.

The Master Plan calls for the completion of the La Grange Historic District Master Plan, which would likely involve a range of activities related to preservation, restoration and interpretation of existing historic buildings and features in and around the community of La Grange. These activities are undefined at present and must be assumed to involve the potential for significant effects on historic resources and therefore significant aesthetic effects. This issue is addressed in more detail in Chapter 8.0 Cultural Resources. Conformance with the mitigation measure CULT-1 would ensure that the potential historic effects of improvements to La Grange historic resources would be reduced to a less than significant level, and that potential aesthetic effects would be similarly minimized.

There are no significant County park facilities on the designated State Scenic Highway (Interstate 5), roads accessing recreation areas, or roads used largely for recreational purposes, excepting the La Grange historical community; planned improvements can be expected to incrementally enhance scenic views in this area. Project improvements implemented under the Parks Master Plan would not affect the visual landscapes afforded along these routes.

Planned park improvements would be confined to existing park areas; as such, these improvements would not intrude upon areas that may contain scenic resources, particularly in more urban areas. However, some planned improvements in parks outside urban areas, such as boat launch ramps, fishing piers and the like, could affect resources such as woodlands, riparian areas, and shorelines. Mitigation measures outlined below would apply to such projects, requiring consideration of the

potential impacts of projects in areas with scenic resources and incorporation of design measures that would reduce or avoid impacts to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures:

AES-1: Recreational improvements such as boat ramps, piers, camp sites in areas of potential visual sensitivity, including the shorelines of Woodward and Modesto Reservoir, and the Tuolumne and San Joaquin River banks should be designed to preserve and enhance scenic resources that could be affected by the project.

AES-2: If significant aesthetic impacts that cannot be reasonably mitigated are anticipated, the County shall prepare a separate CEQA document for the project as described in PEIR Section 3.4, including feasible mitigation measures needed to reduce those potential impacts to a less than significant level.

Significance after Mitigation: Less than significant.

Impact AES-3: Visual Character

Construction activities associated with projects would result in potential visual effects. Grading, access improvements, foundation construction, fencing, equipment installation and other related activities would involve ordinary construction equipment and processes. The visual effects of construction activities and the presence of construction equipment would be temporary. Once construction work is completed, the construction equipment would be removed. Mitigation described below would minimize the effects of construction-related ground disturbance on the visual landscape. Once construction work is completed, the visual landscape at most parks and recreational facilities would be similar to conditions prior to construction.

Proposed improvements to the Frank Raines Regional (OHV) Park would include a new amphitheater, new restrooms, water supplies, trails, picnic facilities and camping spaces. The addition of new facilities would involve disturbance and construction in existing camping and intensive use areas that are relatively disturbed by previous development and adjacent to and visible from Del Puerto Canyon Road. Planned facilities would be minor compared to the size of areas already subject to camping and other intensive uses; as a result, visual changes associated with these improvements would be less than significant.

The planned expansion of OHV use area would subject an additional 500 acres to vegetation and soil disturbance as OHV trails are established and subjected to increasing use. The planned expansion area is located in a relatively remote area which is not substantially visible, if at all, from Del Puerto Road or any other public place other than adjoining portions of the Regional Park. Expansion of OHV terrain would likely be considered beneficial by these users.

Planned recreational improvements to Laird Regional Park would primarily include addition of new facilities to existing recreational areas, including a new amphitheater for small event staging, and paving of existing roadways and parking areas. These improvements are expected to result in beneficial but in any event less than significant aesthetic effects. Proposed new fishing docks and a paved boat launch ramp could involve some substantial grading and disturbance along the San Joaquin River shoreline. Properly designed and constructed as described in Mitigation Measure AES-1, these potential effects would be reduced to a less than significant level.

Proposed improvements to existing recreational areas at Woodward Reservoir and Modesto Reservoir Regional Parks new amphitheaters, for small event staging at Modesto Reservoir and large event staging at Woodward. Other improvements would include construction of new roads and entry facilities and paving of existing roadways and parking areas. These improvements are expected to result in generally beneficial and likely less than significant aesthetic effects. Other improvements would include expansion of campground and day use facilities and, at Modesto Reservoir grading of existing hillsides to improve campground areas and lake views; these changes should be subject to more intensive review prior to construction. New fishing and swimming docks would involve some disturbance along the shoreline but would contribute to the recreational appearance of the area. Properly designed and constructed as described in Mitigation Measure AES-1, these potential effects would be reduced to a less than significant level.

Proposed improvements to the La Grange Regional (OHV) Park, including a new amphitheater, vault toilets, water supplies picnic facilities and camping spaces, would involve disturbance and construction of new facilities in areas that are already subject to substantial disturbance. Relative to the size of areas subject to existing OHV use, visual changes associated with these improvements would be minor and less than significant

Most individual recreation improvements, including the development of 200 acres of new neighborhood parks in the unincorporated area over the planning period, can be expected to result in visual effects that are beneficial. Planned improvements including their new parks, turf, circulation and equipment, and the addition of play facilities, shade structures, signage and trails to existing parks would generally improve the appearance and attractiveness of park sites and surrounding areas for recreational use. Some improvements, such as paving of existing parking areas or minor grading would also contribute to the overall appearance of park facilities but could be perceived by some as somewhat negative. In any event, such effects would be considered less than significant.

The regional parks improvements will involve more substantial changes in their landscapes, including landform modification. Mitigation described below would minimize the effects of these changes to the visual landscape, reducing impacts to a less than significant level.

Level of Significance: Potentially significant

Mitigation Measures: See Mitigation Measures AES-1 and AES-2. In addition, the following mitigation measure shall be implemented.

AES-3: For projects that require grading or landscape alteration, a grading and landscaping plan shall be prepared prior to project approval. The plan shall include measures designed to control erosion and ensure the long-term survival of landscaping materials.

Significance After Mitigation: Less than significant.

Impact AES-4: Light and Glare

Most improvements proposed as part of the Parks Master Plan would not involve the installation of lighting or of structures that would produce glare. Night lighting at some of the community and neighborhood parks is proposed to be brought up to State and federal standards for pedestrian pathways. This lighting is not expected to affect any nearby residences that would be sensitive to changes in light levels at night. The main concern for potential lighting issues would be the construction of baseball and softball fields in community parks, if lighting is to be installed that may

indirectly illuminate nearby residences. The Parks Master Plan includes policies that would limit unnecessary lighting. Mitigation presented below would reduce the potential impacts of facilities requiring lighting by reducing the amount of indirect illumination, thereby reducing impacts to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures:

AES-4: New ballfield or other intensive outdoor lighting facilities shall be designed so as to minimize glare or excessive lighting impacts to offsite residential areas. Restrictions on time of use also may be placed on lighting facilities to minimize impacts as required.

Significance After Mitigation: Less than significant.

5.0 AGRICULTURAL RESOURCES

ENVIRONMENTAL SETTING

Land use in Stanislaus County is dominated by agriculture, including field crops, orchards, vineyards and feed production. About 80.3% of the county's land area is held in farms (U.S. Department of Agriculture 2014). Most of the agricultural activity is concentrated in the Central Valley portion of the County, with some intensive agricultural activity in the lower foothills. Agricultural activity in the upper foothill regions of the County typically is limited to livestock grazing.

Agriculture is the leading industry in Stanislaus County, generating an annual gross agricultural value in excess of a billion dollars into the local economy (Stanislaus County 2016a). The top five agricultural commodities in 2015, in order of dollar value, consisted of almonds, milk, cattle and calves, chickens, and walnuts. Other significant agricultural products include silage, fruit and nut trees and vines, eggs, and turkeys (Stanislaus County Agricultural Commissioner 2016).

Important Farmland

The Important Farmland Maps, prepared by the California Department of Conservation as part of its Farmland Mapping and Monitoring Program, designate the viability of lands for farmland use, based on the physical and chemical properties of the soils as described in soil surveys conducted by the Natural Resources Conservation Service (NRCS), formerly the Soil Conservation Service. The maps categorize farmland, in decreasing order of soil quality, as "Prime Farmland," "Farmland of Statewide Importance," "Unique Farmland," and "Farmland of Local Importance." Collectively, these categories are referred to as "Important Farmland". There are also designations for grazing land and for urban/built-up areas, among others. Important Farmland Maps are available at http://www.conservation.ca.gov/dlrp/fmmp. As described below, the vast majority of agricultural lands are categorized as Important Farmland.

As of 2014, the most recent year of available data, the total amount of Important Farmland in Stanislaus County was 418,656 acres – approximately 43.2% of the total acres inventoried in the county. The 2014 Important Farmland acreage represents an approximately 5.5% increase from the Important Farmland acreage in 2004, the year in which the inventory was adjusted due to completion of a soil survey in the northeastern portion of the county. The increase from 2004 to 2014 was mainly in Unique Farmland. Total grazing land in the County in 2012 was 414,012 acres – a decline of approximately 7.3% from the 2004 figure (California Department of Conservation 2015b).

In Stanislaus County, land classified as Prime Farmland covers extensive portions of the San Joaquin Valley and areas along the Stanislaus and Tuolumne Rivers. East of Modesto and Turlock and along portions of the County on and near the San Joaquin River, Unique Farmland and Farmland of Statewide Importance predominate. In the foothill areas of eastern and western Stanislaus County, land is mostly classified as grazing land. However, the lower-elevation portions of the eastern foothills recently have been planted with orchards and vineyards.

Most of the County's existing park sites addressed by the Master Plan are located in areas that have already been subdivided and converted from agricultural to developed land uses, including the various Tuolumne River Regional Park lands. Woodward Reservoir, Modesto Reservoir and Laird Regional Parks are located in areas of active large-scale agricultural use. The La Grange and Frank Raines Regional Parks as well as the Kiwanis Camp and Joe Domecq Wilderness parks are located in foothill areas that support livestock grazing and other low-intensity agricultural uses. Most of the fishing access sites are in predominantly agricultural areas.

Williamson Act

Land Conservation Act of 1965, commonly known as the Williamson Act, was enacted to preserve farmland in California. Under the Williamson Act, a contract is executed between landowners and local governments to voluntarily restrict development on property in exchange for lower property tax assessments based on the existing agricultural land use. Contracts are entered for a 10-year period and can be terminated only by a nonrenewal or cancellation. In Stanislaus County, there were 308,317 acres of prime agricultural land under Williamson Act contract in 2013, and 381,602 acres of non-prime agricultural land, approximately 82.1% of all agricultural land in the county. Lands removed from Williamson Act contracts are the result of Notices of Nonrenewal filed by property owners to annexed by cities.

Lands in the County's park system are publicly-owned, not subject to taxation and not held under Williamson Act contracts. In areas where adjoining lands are in agricultural use, these lands are predominantly under Williamson Act contracts.

Agricultural Land Use Policies

The Stanislaus County General Plan contains an Agricultural Element, the purpose of which is to promote and protect local agriculture through the adoption of policies designed to achieve three main goals:

- Strengthen the agricultural sector of the county's economy.
- Conserve the county's agricultural lands for agricultural uses.
- Protect the natural resources that sustain agriculture in Stanislaus County.

To achieve these goals, the Agricultural Element sets forth an extensive number of objectives, policies and implementing measures. The overall focus of the Agricultural Element is on the mitigation of negative economic and environmental impacts to agricultural land and the natural resources needed to support local agriculture. The Agricultural Element establishes policies to protect the economy of Stanislaus County by minimizing conflicts between agriculture, the environment, and urban development. Other objectives include provision of housing for farmworkers, support of education and technical assistance for agriculture, and protection of food safety.

Stanislaus County voters passed Measure E in early 2008, known as the 30-year land use restriction initiative. Measure E prohibits the re-designation or rezoning of agricultural and open space land unless it is first approved by a majority countywide vote. The effect of Measure E has been to focus residential development in areas to be annexed to the incorporated cities, and unincorporated areas already designated for residential development.

In 2016, Stanislaus County adopted an updated General Plan, which included an Agricultural Element. The updated Agricultural Element notes that the success of agriculture in Stanislaus County is largely due to favorable climate and the flat, fertile soils, along with the availability of affordable, high-quality irrigation water and low-cost electrical power. However, it also states that the same elements that make Stanislaus County so well suited for agriculture also make the County attractive for urban development. Confronted with population growth, diminishing agricultural resources, and increased production costs, it can no longer be assumed local agriculture will remain the mainstay of the County's economy (Stanislaus County 2016a). The objectives and policies in the updated Agricultural Element are the same as those in the 1992 Agricultural Element, with an additional policy related to groundwater protection.

Stanislaus County has established an agricultural mitigation program that requires land conservation measures or in-lieu fees to compensate for agricultural land converted to development. This program applies only to development projects requiring a General Plan or Community Plan amendment from Agriculture to a residential land use designation of the Stanislaus County General Plan.

Stanislaus County has also enacted a Right to Farm ordinance to protect farmers from nuisance suits as a result of normal farming practices. The ordinance requires disclosure to home buyers in farming areas that they are subject to noise, dust, odors, and other impacts of commercial agricultural operations. The ordinance also provides a notification system to make residents more aware of the right-to-farm policy and provides a voluntary agricultural grievance procedure as an alternative to court proceedings.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Significance Thresholds

According to Appendix G of the CEQA Guidelines, a project may have a significant impact on the environment if it would:

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

Recent revisions to CEQA Guidelines Appendix G encourage the analysis of project impacts on forestry resources. There are no designated forest lands (i.e., National Forest lands, State forests, or lands zoned for timber production) within the County. Therefore, impacts on forestry resources are not analyzed in this PEIR.

Impact AG-1: Conversion of Farmland

The proposed Master Plan describes a range of improvements to existing parklands and facilities. All park improvements would occur within existing acreage; adoption of the Master Plan would not

commit the County to acquiring additional park acreage. As a result, no land categorized as Important Farmland would be converted to recreational or any other non-agricultural use. Improvements within existing park areas would have no substantial impact related to the conversion of Farmland.

Improvements to existing park lands that are separated from agricultural lands would improve the desirability of these lands for recreational use but would not involve adverse off-site effects on agricultural lands. Planned recreational development of regional park lands could result in increased recreational use but very minor, if any, changes that would affect agricultural use of adjoining properties.

Future facilities not specifically described in the Parks Master Plan may be approved for development. For example, new sports parks were proposed in the 1999 Parks Master Plan. Such facilities likely would require acquisition of land, some of which may be categorized as Important Farmland, and their potential conversion would be considered a significant impact. The Parks Master Plan provides for the development of 200 acres of neighborhood parks over the planning period, but the location of these parks are not specified. The location and type of improvements are not, however accounted for in the present Master Plan and are too speculative for agriculture or other effects to be reasonably considered in this EIR. Recreational development of projects not described in Chapter 3.0 Project Description may require additional environmental review under CEQA.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact AG-2: Agricultural Zoning, Williamson Act Contracts, and Agricultural Operations

As described previously, the County's existing park lands are designated and zoned consistent with recreational use and not subject to Williamson Act contracts. As a result, adoption and implementation of the Master Plan would have no significant effect on agricultural zoning or Williamson Act contracts. As discussed above, further recreational development of existing park lands will not result in any environmental changes that would involve substantial effects of agricultural operations on adjoining or nearby lands.

New neighborhood parks or other facilities not described in the Parks Master Plan could be proposed on lands that are subject to Williamson Act contracts. The Williamson Act status of these lands will need to be examined in the park planning process. Some park facilities may be consistent with Williamson Act consistency criteria, but for other facilities the procedures for contract will need to be followed. It is too speculative to determine whether development of new neighborhood parks will involve impacts on Williamson Act lands.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact AG-3: Other Environmental Changes That Could Result in Agricultural Land Conversion

Substantial changes in land use, introduction of new populations into an existing agricultural area or economic changes that would affect the viability of agricultural use have the potential to contribute to conversion of agricultural land to other uses. As described in the above analyses, adoption and implementation of the Master Plan would involve continuation of existing recreational uses on existing park lands. Although existing park facilities would be improved, improvements would not result in any significant changes in land use, permanent changes in population or substantial economic changes affecting agriculture. As a result, the project would have a less than significant effect in this issue area.

Level of Significance: Less than significant

Mitigation Measures: None required

6.0. AIR QUALITY

This chapter describes the potential effects of Parks Master Plan implementation on air quality, specifically as they relate to pollutants regulated by the federal and California Clean Air Acts. Greenhouse gases (GHGs), gases that trap heat generated by the sun, are regulated separately from other air pollutants. Chapter 10.0, Greenhouse Gas Emissions, discusses the potential environmental impacts of the Parks Master Plan as they relate to GHG emissions.

ENVIRONMENTAL SETTING

The Program Area is located within the northern portion of the San Joaquin Valley Air Basin (SJVAB) (Figure 6-1, page 6-2). The basin is bounded generally by the Coast Ranges to the west and the Sierra Nevada and foothills to the east. Prevailing winds are from the west and north and result from marine breezes that enter the basin primarily through the Carquinez Strait and the Altamont Pass. Surrounding topography results in weak air flow, which makes the air basin highly susceptible to pollutant accumulation over time (SJVAPCD 2015b). Summers are hot and dry, and winters are cool. Historically, most of the annual precipitation falls from November through April. The Program Area enjoys more than 260 days of sunshine annually, but fog and intermittently stormy weather reduce the amount of sunshine during the winter months. Inversions occur frequently during fall and early winter (SJVAPCD 2015b).

FIGURE 6-1
SOURCE: O'Dell Engineering

The SJVAB has been identified by the California Air Resources Board (ARB) as impacted by air pollution transported from the San Francisco Bay Area and Broader Sacramento Air Basins (ARB 1993). The SJVAB is also a contributor of air pollution to the Broader Sacramento, Mountain Counties, South Central Coast, Southeast Desert, and Great Basin Valley Air Basins. As a pollutant contributor, the SJVAB is subject to special mitigation requirements of the California Clean Air Act.

Air Pollutants

Pollutants of concern in Stanislaus County include the following:

- Ozone. Ozone is not directly produced by automobile fuel combustion; rather, it is a secondary pollutant that is formed from reactive organic gases (ROG) and nitrogen oxides (NO_x) in the presence of sunlight. Automobile emissions represent the principal source of these pollutants. Ozone causes eye irritation and respiratory function impairment. It also damages natural ecosystems, agricultural crops, and manmade materials such as rubber and

plastics. To control ozone pollution, it is necessary to control emissions of ROG and NO_x. Ozone attainment plans applicable to the County include the 2007 Ozone Plan and the 2013 Plan for the Revoked 1-Hour Ozone Standard for the Air Basin.

- Particulate Matter and Fine Particulate Matter (PM_{10} and $PM_{2.5}$). Particulates include any solid matter suspended in air. Standards are applied to particulates less than 10 micrometers in diameter (PM_{10}), because these particles (when inhaled) are not filtered out prior to reaching the lungs, where they can aggravate respiratory diseases. Particulates originate from automobile traffic, urban construction, grading, farm tilling, and other activities that expose soil and dust. Dry summer conditions and daily winds can increase particulate concentrations. Separate standards have been established for particulate matter, which is 2.5 micrometers or less in size ($PM_{2.5}$), sometimes referred to as "fine particulate matter." The $PM_{2.5}$ standards reflect health concerns related to deeper inhalation of smaller particles. Fine particulates include sulfates, nitrates, organics, ammonium and lead compounds originating from some activities in urban areas. Applicable attainment plans include the 2015 PM2.5 Plan for the 1997 federal PM2.5 standard, the 2012 PM2.5 Plan for the 2006 federal PM2.5 standard, the 2016 Moderate Area Plan for the 2012 federal PM2.5 standard, and the 2007 PM10 Maintenance Plan to maintain the Air Basin's attainment status of the federal PM10 standard.

- Carbon Monoxide (CO). CO is an odorless, colorless gas that is toxic in high concentrations. It is formed mainly by the incomplete combustion of fuels. The primary source of CO emissions in the vicinity is from the combustion of petroleum fuel, particularly from automobiles. Because of its ability to readily combine with hemoglobin and displace oxygen in the human body, high levels of CO can are hazardous, especially for elderly people or individuals with respiratory ailments, including fatigue, headache, confusion, and dizziness. A State Implementation Plan for CO has been adopted by ARB for the entire state.

In 2012, the most recent year for which air pollution data are available, approximately 358 tons of ROG, 325 tons of NO_x, and 903 tons of CO were emitted each day from sources in the San Joaquin Valley. Also, approximately 282 tons of PM_{10}, of which 76 tons were $PM_{2.5}$, were emitted daily. Areawide sources account for most of the ROG and particulate matter emissions. Emissions from areawide sources may be either from small individual sources, such as residential fireplaces, or from widely distributed sources that cannot be tied to a single location, such as consumer products and dust from unpaved roads. Most of the NO_x and CO emissions were caused primarily by mobile sources; i.e., motor vehicles (ARB 2013).

Toxic Air Contaminants

Toxic air contaminants (TACs) are non-criteria pollutants that cause or may cause cancer or other serious health effects, such as chronic eye, lung or skin irritation, reproductive effects or birth defects, neurological and reproductive disorders, or adverse environmental and ecological effects. Examples of toxic air pollutants include benzene, which is found in gasoline; perchlorethlyene, which is emitted from some drycleaning facilities; and methylene chloride, which is used as a solvent and paint stripper by a number of industries. Other air toxics include, but are not limited to, dioxin, asbestos, toluene, and metals such as cadmium, mercury, chromium, and lead compounds. The State's Air Toxics Inventory lists more than 250 substances.

TABLE 6-1
NATIONAL AND CALIFORNIA AMBIENT AIR QUALITY STANDARDS

Air Pollutant	Averaging Time	California Standards	Primary National Standards[1]	Secondary National Standards[2]
Ozone	1 Hour	0.090 ppm	--	--
	8 Hour	0.070 ppm	0.070 ppm	0.070 ppm
PM_{10}	24 Hour	50 µg/m^3	150 µg/m^3	--
	Annual Mean	20 µg/m^3	--	--
$PM_{2.5}$	24 Hour	--	35 µg/m^3	35 µg/m^3
	Annual Mean	12 µg/m^3	12 µg/m^3	12 µg/m^3
Carbon Monoxide	1 Hour	20 ppm	35 ppm	--
	8 Hour	9 ppm	9 ppm	--
Nitrogen Dioxide	1 Hour	0.18 ppm	100 ppb	--
	Annual Mean	0.030 ppm	0.053 ppm	0.053 ppm
Sulfur Dioxide	1 Hour	0.25 ppm	75 ppb	--
	3 Hour	--	--	0.5 ppm
	24 Hour	0.04 ppm	0.14 ppm*	--
	Annual Mean	--	0.030 ppm*	--
Lead	30 Day Avg.	1.5 µg/m^3	--	--
	Calendar Qtr.	--	1.5 µg/m^3	1.5 µg/m^3
	3 Month Average	--	0.15 µg/m^3	0.15 µg/m^3
Sulfates	24 Hour	25 µg/m^3	N/A	N/A
Hydrogen Sulfide	1 Hour	0.03 ppm	N/A	N/A
Vinyl Chloride	24 Hour	0.01 ppm	N/A	N/A
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per kilometer.	N/A	N/A

Notes: ppm – parts per million; ppb – parts per billion; µg/m^3– micrograms per cubic meter; N/A – not applicable

[1] National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

[2] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

* For certain areas.

Source: ARB 2016.

Diesel particulate matter (diesel PM) is designated by the State of California as a TAC. Diesel PM is of particular concern because it is a potential source of both cancer and non-cancer health effects, and it is present at some concentration in all developed areas of the state. Diesel PM makes the largest single contribution to air toxic emissions in the SJVAB, most of which (about 60%) is derived from mobile sources. The top four air toxics in terms of emission tons per year (ARB, 2006):

Diesel PM	4,124
Formaldehyde	3,517
Benzene	1,879
Acetaldehyde	1,139

Major sources of diesel PM emissions include trucks, railroads, shipping, and stationary diesel combustion sources. Localized areas within the community may be subject to increased air toxic exposure based on location near to major diesel PM emitters, such as freeways or rail yards, or near industrial sources of air toxics (CARB, 2005).

Air Quality Standards and Attainment Status

The federal Clean Air Act and the California Clean Air Act provides the bases for air quality regulation in Stanislaus County and the SJVAB. The U.S. Environmental Protection Agency (EPA) implements the federal Clean Air Act, while the ARB implements the California Clean Air Act. Both the EPA and the ARB have established ambient air quality standards under their respective enabling legislation. Table 6-1 presents these ambient air quality standards. The federal standards were established for six "criteria pollutants": ozone, particulate matter, carbon monoxide, nitrogen dioxide, sulfur dioxide, and lead. The state standards include other pollutants along with the federal criteria pollutants. As indicated by Table 6-1, the state standards for criteria pollutants are generally more stringent than the federal standards.

Areas where these standards are exceeded are considered "nonattainment" areas and are subject to more intensive air quality management and more stringent regulation. Table 6-2 (see below) shows the attainment status of the SJVAB for state and federal ambient air quality standards. The SJVAB is designated Nonattainment/Extreme by the federal government, and Nonattainment/Severe by the state, for ozone. Both the state and federal governments classify the basin as Nonattainment for fine particulate matter ($PM_{2.5}$). The state also classifies the basin as Nonattainment for particulate matter (PM_{10}). With the exception of the Fresno urbanized area, located outside the program area, the SJVAB is in attainment of, or unclassified for, carbon monoxide and other applicable standards. The California Clean Air Act requires areas that are designated nonattainment to achieve a 5% annual reduction in emissions until the standards are met.

Development activities are subject to the regulatory authority of the San Joaquin Valley Air Pollution Control District (SJVAPCD), which implements and enforces air quality regulations in the SJVAB. The SJVAPCD develops air quality plans in accordance with the objectives of the federal and State Clean Air Acts, and it issues rules and regulations designed to implement these plans. One of the regulations most pertinent to land development in general, and to recreational improvements envisioned by the Parks Master Plan is Regulation VIII (Fugitive Dust PM10 Prohibitions), which contain rules designed to reduce PM_{10} emissions (predominantly dust/dirt) generated by activities such as construction and demolition, road construction, and use of paved and unpaved roads. Another pertinent rule is Rule 9510, also known as the Indirect Source Rule (ISR). The ISR requires specific reduction or mitigation of NO_x and PM_{10} construction and operational emissions from new development, if the size of the development meets ISR thresholds. Recreational building projects that are 20,000 square feet in size or larger are subject to the ISR.

TABLE 6-2
SJVAB ATTAINMENT STATUS
WITH FEDERAL AND STATE AMBIENT AIR QUALITY STANDARDS

	Designation/Classification	
Pollutant	**Federal Standards[a]**	**State Standards[b]**
Ozone - One hour	No Federal Standard[f]	Nonattainment/Severe
Ozone - Eight hour	Nonattainment/Extreme[e]	Nonattainment
PM_{10}	Attainment[c]	Nonattainment
$PM_{2.5}$	Nonattainment[d]	Nonattainment
Carbon Monoxide	Attainment/Unclassified	Attainment/Unclassified
Nitrogen Dioxide	Attainment/Unclassified	Attainment
Sulfur Dioxide	Attainment/Unclassified	Attainment
Lead (Particulate)	No Designation/Classification	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Sulfates	No Federal Standard	Attainment
Visibility Reducing Particles	No Federal Standard	Unclassified
Vinyl Chloride	No Federal Standard	Attainment

[a] See 40 CFR Part 81

[b] See CCR Title 17 §60200-60201

[c] On September 25, 2008, the U.S. Environmental Protection Agency (EPA) redesignated the San Joaquin Valley to attainment for the PM_{10} National Ambient Air Quality Standard (NAAQS) and approved the PM_{10} Maintenance Plan.

[d] The Valley is designated nonattainment for the 1997 $PM_{2.5}$ NAAQS. EPA designated the Valley as nonattainment for the 2006 PM2.5 NAAQS on November 13, 2009 (effective December 14, 2009).

[e] Though the Valley was initially classified as serious nonattainment for the 1997 8-hour ozone standard, EPA approved Valley reclassification to extreme nonattainment in the Federal Register on May 5, 2010 (effective June 4, 2010).

[f] Effective June 15, 2005, EPA revoked the federal 1-hour ozone standard, including associated designations and classifications. EPA had previously classified the SJVAB as extreme nonattainment for this standard. EPA approved the 2004 Extreme Ozone Attainment Demonstration Plan on March 8, 2010 (effective April 7, 2010). Many applicable requirements for extreme 1-hour ozone nonattainment areas continue to apply to the SJVAB.

Source: SJVAPCD 2015a.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Significance Thresholds

According to Appendix G of the CEQA Guidelines, a project may have a significant impact on the environment if it would:

- Conflict with or obstruct implementation of an applicable air quality plan,
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation,

- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard,
- Expose sensitive receptors to substantial pollutant concentrations, or
- Create objectionable odors affecting a substantial number of people.

CEQA Guidelines Appendix G states that, where available, significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make significance determinations. The potential air quality impacts of the Parks Master Plan are evaluated using significance criteria established in the SJVAPCD's Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI), which was updated in 2015 (SJVAPCD 2015b). The GAMAQI defines analysis methodology, thresholds of significance, and mitigation measures for project construction, project operations, and potential cumulative air quality impacts in the SJVAB. It encompasses potential criteria pollutant impacts, toxic and hazardous emissions, and odors.

Table 6-3 below shows the significance thresholds established by SJVAPCD for development projects. The significance thresholds were established in part to ensure that project emissions are consistent with air quality plans applicable to the SJVAB.

TABLE 6-3
SJVAPCD SIGNIFICANCE THRESHOLDS

	Emissions (tons per year)	
Pollutant	**Construction**	**Operational**
Carbon Monoxide	100	100
Nitrogen Oxides (NO_x)	10	10
Reactive Organic Gases (ROG)	10	10
Sulfur Oxides (SO_x)	27	27
Particulate Matter (PM_{10})	15	15
Fine Particulate Matter ($PM_{2.5}$)	15	15

Source: SJVAPCD 2015b.

Impact AIR-1: Air Quality Plans and Standards (Construction Emissions)

Projects proposed as part of the Parks Master Plan would result in direct and indirect potential impacts on air quality from project construction activities. Construction of individual projects would contribute to mobile source emissions, such as ozone precursors and carbon monoxide, from construction equipment and trips by construction workers. Projects also would contribute to particulate matter emissions, primarily from soil disturbance and equipment operation in unpaved areas. Potential construction emissions would vary widely based on the scope of the individual project.

The majority of the park improvements described in Chapter 3.0 Project Description involve installation of signage, new playgrounds, fitness stations and other recreational equipment, renovation of existing buildings and construction of low-disturbance facilities of very limited size such as new restrooms and other small structures, hard courts, BBQs, shade structures, walking paths and trails, dog park facilities. These improvements would involve very limited potential for generation of air emissions and would not result in significant air quality impacts. Planned improvements at the regional parks and fishing access facilities, including new larger performance venues, amphitheaters, areas of extended site grading, campground additions, grading and paving of access routes and parking areas all have the potential to involve extended construction periods, substantial areas of disturbance and potential for significant mobile source and fugitive dust emissions.

The SJVAPCD has determined that PM_{10} is the pollutant of greatest concern for construction projects. Carbon monoxide and ozone precursor emissions are considered significant only in the cases of "very large or very intense construction projects." Most proposed activities would not be consistent with this definition. Consequently, for most projects, potential project impacts related to construction would be less than significant.

Construction dust impacts would be related to the amount of soil disturbance associated with the individual project. The GAMAQI indicates that construction dust impacts need not be quantitatively analyzed, but that management should focus on implementation of effective and comprehensive dust control measures. These measures are specified in the SJVAPCD's Regulation VIII. The SJVAPCD has determined that compliance with Regulation VIII will constitute sufficient mitigation to reduce construction PM_{10} emission impacts to a level that is less than significant, and to comply with the goals of the particulate matter reduction plans applicable to the SJVAB. Appropriate dust control measures are identified in the mitigation measures below.

Level of Significance: Potentially significant

Mitigation Measures:

AIR-1: All grading, road construction and other projects involving substantial ground disturbance shall comply with the relevant provisions of the San Joaquin Valley Air Pollution Control District Regulation VIII, Control Measures for Construction Emissions of PM-10. These provisions include, but are not limited to, the following:

a. All disturbed areas, including storage piles, which are not being actively utilized for construction purposes shall be effectively stabilized to control dust emissions by using water, chemical stabilizer/suppressant, or vegetative ground cover.

b. All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized to control dust emissions by using water or chemical stabilizer/suppressant.

c. All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall effectively control fugitive dust emissions by utilizing application of water or by presoaking.

d. When materials are transported off-site, all material shall be covered or effectively wetted to limit visible dust emissions, or at least six inches of freeboard space from the top of the container shall be maintained.

e. All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at least once every 24 hours when operations are occurring. The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden.

f. Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized to control fugitive dust emissions by utilizing sufficient water or chemical stabilizer/suppressant.

g. Limit traffic speeds on unpaved roads to 15 mph.

h. For projects five acres in size or greater, the contractor shall prepare and submit a Dust Control Plan to SJVAPCD. For projects less than five acres but at least one acre in size, the County shall notify SJVAPCD as required.

Significance after Mitigation: Less than Significant

Impact AIR-2: Air Quality Plans and Standards (Operational Emissions)

Operation of the County's recreational facilities, as improved pursuant to the Master Plan would not involve any substantial increase in air emissions or result in exceedance of the significance thresholds of SJVAPCD. The main source of emissions associated with park and recreational facility operations would be vehicle traffic. Change in vehicle traffic to the improved neighborhood parks is expected to be small and unlikely to generate emissions that exceed the SJVAPCD significance thresholds. This traffic would generate ozone precursor emissions, as well as fugitive dust emissions if these facilities are accessed by dirt roads. With the exception of development of new entertainment venues at Woodward Reservoir, none of the planned improvements would involve sufficient increases in traffic to produce annual increases in ozone precursor or particulate emissions that would exceed the SJVAPCD significance thresholds. Planned paving of access ways and parking areas would help reduce these existing fugitive dust emissions.

The Woodward Reservoir Northside improvements have the potential to result in significant emissions during periods when entertainment venues are in use. This project will be subject to CEQA environmental review, which would include an analysis of air pollutant emissions generated by project operations. Emissions typically are estimated using air quality computer models. For projects in the San Joaquin Valley Air Basin, the SJVAPCD recommends the use of the CalEEMod model. If the estimated project emissions exceed the SJVAPCD significance thresholds, they would be considered a potentially significant impact.

SJVAPCD Rule 9510, the ISR, requires the inclusion of mitigation measures and/or the payment of air quality mitigation fees in conjunction with new development that would equate to a 33% percent reduction in NOx operational emissions, and a 50% reduction in PM10 operational emissions, for a 10-year period. The ISR would apply to recreational development that is 20,000 square feet or more and could conceivably apply to the Woodward project. Recreational projects smaller than

20,000 square feet, including nearly all of the planned improvements described in the Master Plan, would not be subject to the ISR and would not exceed SJVAPCD significance thresholds.

Level of Significance: Potentially significant (Woodward Reservoir Northside project)

Mitigation Measures:

AIR-2: The Woodward Reservoir Northside project shall be subject to separate environmental review under CEQA, including modeling of potential air emissions. If the operational emissions associated with a project are found to exceed the SJVAPCD significance thresholds, the project shall identify and implement mitigation measures that would reduce emissions to a level that would be below the applicable significance thresholds. If the project meets the criteria for applicability of SJVAPCD Rule 9510 (the Indirect Source Rule) shall comply with all requirements as set forth by the SJVAPCD.

Significance after Mitigation: Less than significant.

Impact AIR-3: Exposure of Sensitive Receptors to Pollutants

"Sensitive receptors" are land uses that are particularly sensitive to changes in the levels of air pollutant emissions, either temporary or permanent. According to the GAMAQI, sensitive receptors are "facilities that house or attract children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants." Hospitals, schools, convalescent facilities, and residential areas are examples of sensitive receptors (SJVAPCD 2015b).

As described in Impact AIR-1, construction of projects identified in the Parks Master Plan may generate temporary but short-term increases in air pollutant emissions, particularly particulate matter emissions. Such emissions would vary by project, but none of the planned improvements, besides improvements at Woodside Reservoir, would generate construction emissions that would exceed applicable annual significance thresholds. Dust emissions associated with the Woodward project would be controlled in accordance with Mitigation Measure AIR-1; as there are no sensitive receptors in the immediate vicinity, these potential impacts would be less than significant. At park facilities with nearby sensitive development, particulate emissions generated by project construction activities could have significant temporary nuisance effects on sensitive receptors in the vicinity. Implementation of Mitigation Measure AIR-1 would reduce construction dust emissions, reducing impacts to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures: Mitigation Measure AIR-1

Significance after Mitigation: Less than significant

Impact AIR-4: Odors

Parks and recreational facilities are not typically sources of odors. There are no anticipated activities on improved park lands that would generate substantial odors., unlike industrial and food processing plants. The regional parks and fishing access points are, in any event, located away from land uses sensitive to odors, such as residential areas.

Neighborhood and community parks generally have no facilities that would generate substantial odors. However, the Parks Master Plan proposes the creation of dog parks at some of these parks. Urine and other waste left by dogs can generate odors that could reach nearby residences. Mitigation presented below would address odor issues associated with dog parks. Implementation of this mitigation would reduce potential odor impacts to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures:

AIR-3: Prior to construction of dog park projects, the County shall establish and implement a maintenance plan that provides for effective control of potential odors. The plan may include, but is not limited to, the types of materials to be used, regularly scheduled cleanup, availability of materials and facilities for dog owners to clean up and dispose of wastes, and procedures to handle odor complaints.

Significance after Mitigation: Less than significant

7.0 BIOLOGICAL RESOURCES

ENVIRONMENTAL SETTING

Existing Vegetation and Wildlife

Stanislaus County is situated in the Great Central Valley subdivision of the California Floristic Province. The topography of the central part of the County is relatively level, while the western part extends into the Coast Ranges and the eastern part extends into the foothills of the Sierra Nevada. The Program EIR of the County General Plan Update categorizes land cover in Stanislaus County into 13 types (Stanislaus County 2016b). Figure 7-1 illustrates the types of land cover in the County, which are described below.

Central Valley Area

Land cover in the Central Valley portion of the County is predominantly Agriculture and Urban. From a biological standpoint, Agriculture land cover is "monocultural" in terms of vegetation and provides minimal habitat diversity. Agricultural areas often are used by wildlife species for foraging and cover. Common species in Agriculture include mourning dove, American crow, Brewer's blackbird, red-tailed hawk, pocket gophers, and other small rodents.

Urban land cover includes the developed areas in cities and unincorporated communities. Urban areas contain landscape vegetation that generally includes a mix of native species and non-native horticultural species. They provide habitat for many common bird species that utilize landscaped areas for foraging, cover, and nesting, such as American robin, mourning dove, and northern mockingbird (Stanislaus County 2016b).

Coast Range Foothills

The western foothills contain a variety of land cover. Annual Grassland is found in the lower elevations. Annual Grassland is dominated by non-native annual grasses and annual and perennial forbs. Typical annual grasses include wild oat, ripgut brome, soft chess, Italian rye grass, and foxtail barley. Non-native forbs include wild mustard, filaree, and wild radish; native forbs may include fiddleneck, California poppy, and popcorn flower. Common wildlife species include western fence lizard, western meadowlark, mourning dove, American crow, Brewer's blackbird, red-winged blackbird, red-tailed hawk, Botta's pocket gopher, and California ground squirrel (Stanislaus County 2016b).

At higher elevations, Oak Woodland, Blue Oak-Foothill Pine Woodland, and Chaparral predominate. Oak Woodlands include valley oak, interior live oak, and blue oak. In the Blue-Oak-Foothill Pine Woodland, foothill pine co-dominates with blue oak. Shrubs in these woodlands include California coffeeberry, poison oak, and blackberry, with some areas containing manzanita, ceanothus, and blue elderberry. Common wildlife species in oak woodlands include western fence lizard, California quail, oak titmouse, acorn woodpecker, red-shouldered hawk, western gray

squirrel, and mule deer. Chaparral consists of two types: chamise-redshank dominated by chamise with associated California coffeeberry, redberry, and poison oak; and mixed chaparral that may include scrub oak, chaparral oak, ceanothus, and manzanita as dominant species. Common wildlife species found in Chaparral includes western fence lizard, western diamondback rattlesnake, western scrub jay, California towhee, spotted towhee, sage sparrow, Bewick's wren, Botta's pocket gopher, California ground squirrel, and mule deer. The California Natural Diversity Database (CNDDB), managed by the California Department of Fish and Wildlife (CDFW), recognizes chamise-redshank chaparral and mixed chaparral on serpentine soils as sensitive vegetation communities (Stanislaus County 2016b). Serpentine soils occur within portions of Frank Raines Regional Park, and these soils likely support one or both of these sensitive vegetation communities.

Diablan Sage Scrub is recognized as a sensitive vegetation community by the CNDDB. It is found at the western edge of the County. Dominant plant species include California sagebrush, California buckwheat, and black sage. Common wildlife species in this vegetation community are similar to those found in other communities in the Coast Range foothills. Diablan sage scrub may also be found in the upper portions of Frank Raines Regional Park.

Sierra Nevada Foothills

As in the western foothills, Annual Grassland is a predominant land cover in the eastern foothills, which also contain extensive Vernal Pool/Annual Grassland Complex areas. Vernal pools support a variety of native and non-native plant species, including foxtail, annual hairgrass, downingia, spikerush, coyote thistle, popcorn flower, and wooly marbles. They support common aquatic species such as California linderiella, Sierran tree frog, and western toad. Vernal pools are frequented by migratory waterfowl and shorebirds, and they provide habitat for a number of special-status plant and wildlife species. Vernal pools are considered sensitive natural communities. Areas in the eastern portions of the County are designated Barren. Barren dredge mining areas are located in the immediate vicinity of La Grange Regional Park locations of historical dredge mining. These areas provide very low quality habitat for wildlife (Stanislaus County 2016b).

Land cover types associated with rivers, streams, and lakes are found in all three landscapes. Riverine cover includes the open water areas of the major rivers in the County – the San Joaquin, Stanislaus, and Tuolumne – along with smaller streams and ditches. Lacustrine (lake) cover is found mainly at reservoirs – Woodward Reservoir, Modesto Reservoir, and Turlock Lake. Valley Foothill Riparian land cover found along major rivers and creeks in the County. Predominant tree species in Riparian areas include box elder, white alder, Oregon ash, California sycamore, Fremont cottonwood, valley oak, and a variety of willows. Riparian areas provide food, water, migration and dispersal corridors, escape cover, nesting, and thermal cover for an abundance of wildlife as well as shaded habitat for fish species. Aside from some species already mentioned, species found in riparian areas include common kingsnake, tree swallow, bushtit, great horned owl, northern flicker, broad-footed mole, brush rabbit, and raccoon. Riverine, lacustrine, and riparian habitats are considered sensitive natural communities (Stanislaus County 2016b).

Riparian areas, including locally dense stands, are located along the banks of the Stanislaus, Tuolumne and San Joaquin River; broad areas of riparian vegetation extend well beyond the riverbanks into the braided channels and floodplain areas of the River, in particular within the San Joaquin National Wildlife Refuge. Stanislaus County parks with notable Riparian areas include San Joaquin River and Laird Slough banks within Laird Regional Park, Riverdale Park, the various fishing access points, Basso Bridge and the various La Grange historic sites located along the Tuolumne River. Scattered Riparian areas exist along the shorelines of Woodward and Modesto

Reservoir, with expanses of dense Riparian area along and in the vicinity of the inlet channels to each reservoir.

Waters of the U.S. and Wetlands

Waters of the U.S., including wetlands, are broadly defined under 33 Code of Federal Regulations (CFR) 328 to include navigable waterways, their tributaries, and adjacent wetlands. More specifically, Waters of the U.S., as defined in 33 CFR 328.4, encompasses Territorial Seas, Tidal Waters, and Non-Tidal Waters; Non-Tidal Waters includes interstate and intrastate rivers and streams, as well as their tributaries. Other jurisdictional wetlands and Waters of the U.S. include, but are not limited to, perennial and intermittent creeks and drainages, lakes, seeps, and springs; emergent marshes; riparian wetlands; and seasonal wetlands. Wetlands and Waters of the U.S. provide critical habitat components, such as nest sites and a reliable source of water, for a wide variety of wildlife species.

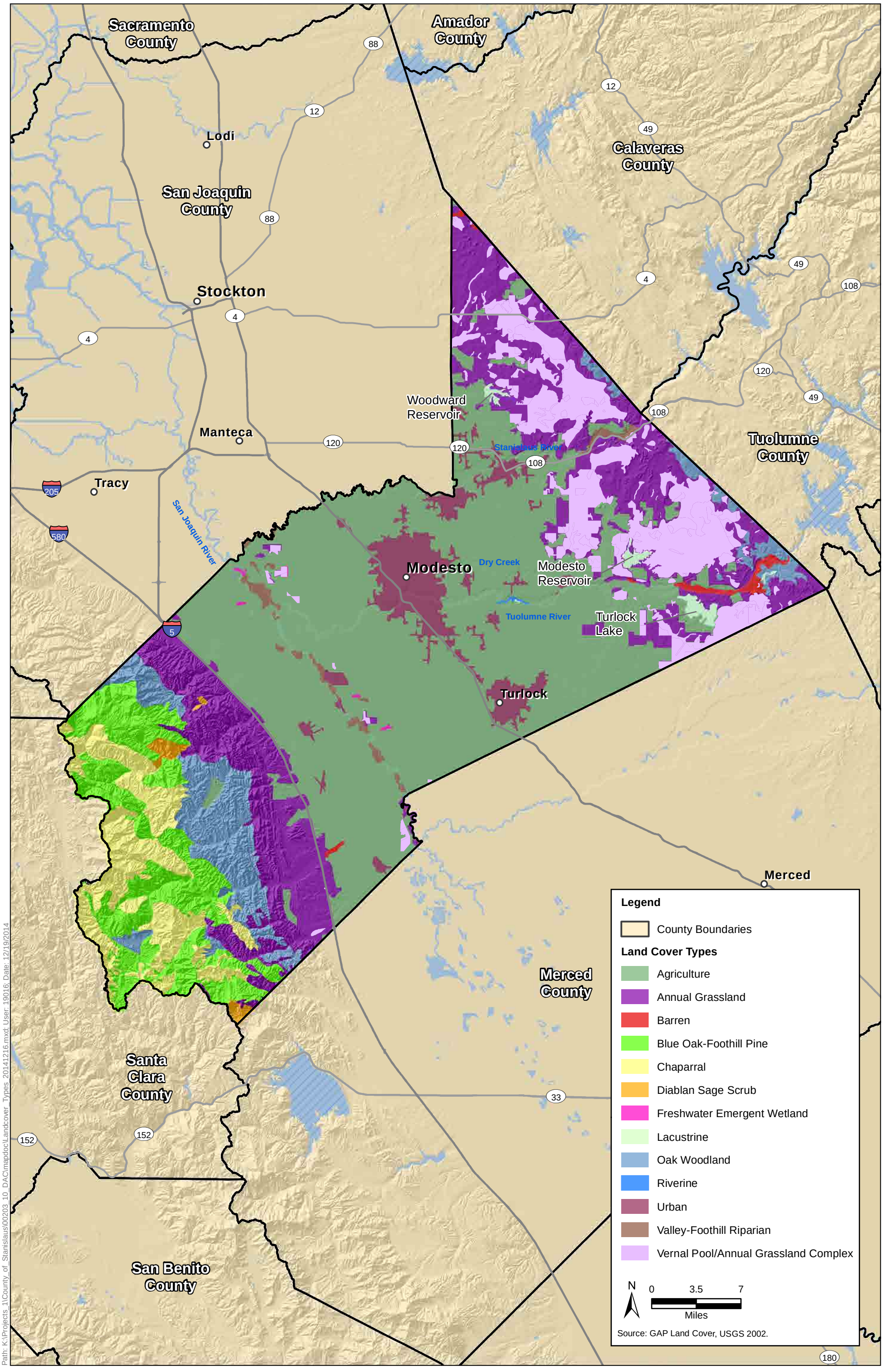
Section 404 of the Clean Water Act requires that a permit be secured prior to the discharge of dredged or fill materials into any Waters of the U.S., including wetlands, which are defined, for Non-Tidal Waters of the U.S., as areas below the "ordinary high water mark". The definition of jurisdictional Waters of the U.S. and wetlands is evolving and is expected to continue to evolve.

The State of California also has regulatory authority over waters and wetlands. The CDFW has jurisdiction over modifications to rivers, lakes, and streams under California Fish and Game Code §1600 *et seq*. The Regional Water Quality Control Board (RWQCB) regulates discharges into waters to minimize adverse impacts on water quality.

Waters of the U.S. are widely distributed across Stanislaus County. Stanislaus County reaches of the San Joaquin River, Stanislaus River, and Tuolumne River are considered navigable Waters of the U.S. In some portions of the Central Valley, levees generally form a clear boundary between upland areas and jurisdictional waters and wetlands. In Stanislaus County, rivers and creeks are not typically confined by levees but flow within channel areas incised into the surrounding floodplains. In the case of the San Joaquin River, within certain limits, the river channel may meander during high flows. In the foothills, the rivers are located within incised canyons. Intermittent and perennial streams in the foothills drain to the Central Valley and are eventually tributary to the major rivers. Frank Raines Regional Park includes portions of Del Puerto Creek and some of its tributaries, all of which are intermittent in flow. Del Puerto Creek may flow year-round in some years.

A number of wetland types also occur within Stanislaus County; some of these wetlands are seasonal. Emergent wetlands fed by seeps and spring, ponds, vernal pools, and alkali sinks occur in the county. USACE jurisdiction extends to wetlands that are either tributary to or adjacent to jurisdictional Waters of the U.S. Isolated wetlands do not fall under USACE jurisdiction.

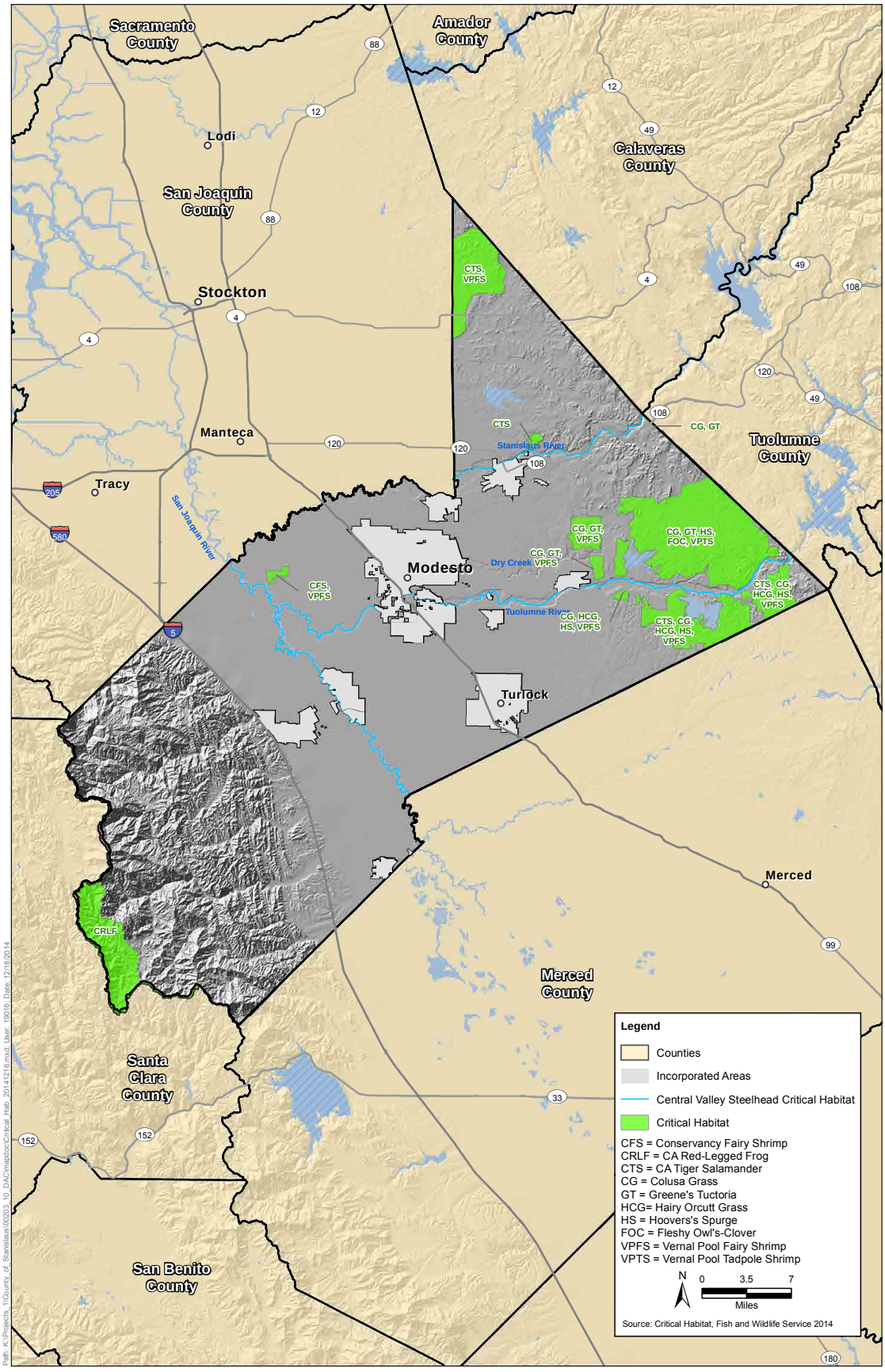
In some cases, irrigation canals and ditches excavated entirely in upland areas can be jurisdictional Waters of the U.S. due to their hydrologic regime. For example, if irrigation laterals that serve agricultural lands are gravity-fed surface water from a jurisdictional Water of the U.S., and the laterals convey water back to a jurisdictional Water of the U.S., the laterals could be considered jurisdictional Waters of the U.S.



Path: K:\Projects_1\County_of_Stanislaus\00203.10_DAC\mapdoc\Landcover_Types_20141216.mxd, User: 19016; Date: 12/19/2014

SOURCE: Stanislaus County General Plan EIR (ICF 2016)

FIGURE 7-1
LAND COVER/HABITAT AREAS



BaseCamp Environmental

Figure 7-2
CRITICAL HABITAT

Special-Status Species

For the purposes of CEQA, special-status species are defined as the following:

- Species listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (ESA) (50 CFR 17.12 [listed plants], 50 CFR 17.11 [listed animals], and various notices in the Federal Register [proposed species]).
- Species that are candidates for possible future listing as threatened or endangered under ESA (79 FR 72450, December 5, 2014).
- Species listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (CESA) (California Code of Regulations [CCR], Title 14, Section 670.5).
- Species that meet the definitions of rare or endangered under State CEQA Guidelines Section 15380.
- Wildlife fully protected in California (California Fish and Game Code Section 3511 [birds], 4700 [mammals], and 5050 [amphibians and reptiles]).
- Wildlife species of special concern (SSC) to CDFW.
- Plants listed as rare under the CNPPA (California Fish and Game Code Section 1900 et seq.).
- Plants with a California Rare Plant Rank of 1A, 1B, 2A, 2B, 3, and 4 (California Native Plant Society 2014).

There are numerous animal and plant species within Stanislaus County that are given special status under state and federal law because they are rare, threatened, endangered, or otherwise identified as needing protection in order to ensure their survival. CDFW maintains the CNDDB, a statewide inventory of reported occurrences of special-status plant and animal species. This includes federal and state listed species, as well as plants that are considered threatened.

Special-Status Plants

Table 7-1 lists the special-status plant species that have been found to occur in Stanislaus County (Stanislaus County 2016b). Of these species, 9 are state and/or federally listed - succulent (fleshy) owl's clover, Hoover's spurge, Tracy's eriastrum, Delta button-celery, Colusa grass, San Joaquin Valley Orcutt grass, hairy Orcutt grass, Hartweg's golden sunburst, and Greene's tuctoria. The identified special-status plants are found in a variety of natural habitats, including annual grassland, vernal pool, oak woodland, riparian, and chaparral. Some, however, are restricted or endemic to certain plant communities or soil types, including plants commonly associated with wetlands and vernal pools or found on serpentine or other unusual soil types.

TABLE 7-1
SPECIAL-STATUS PLANT SPECIES IN STANISLAUS COUNTY

Common Name	Scientific Name	Federal Status[1]	State Status[2]	CNPS List[3]
Santa Clara thornmint	*Acanthomintha lanceolata*	-	-	4
Red-flowered bird's-foot trefoil	*Acmispon rubriflorus*	-	-	1B
Sharsmith's onion	*Allium sharsmithiae*	-	-	1B
Alkali milk-vetch	*Astragalus tener var. tener*	-	-	1B
Heartscale	*Atriplex cordulata var. cordulata*	-	-	1B
Crownscale	*Atriplex coronata var. coronata*	-	-	4
Brittlescale	*Atriplex depressa*	-	-	1B
Lesser saltscale	*Atriplex miniscula*	-	-	1B
Vernal pool smallscale	*Atriplex persistens*	-	-	1B
Subtle orache	*Atriplex subtilis*	-	-	1B
Big tarplant	*Blepharizonia plumosa*	-	-	1B
Sierra bolandra	*Bolandra californica*	-	-	4
Round-leaved filaree	*California macrophylla*	-	-	1B
Oakland star-tulip	*Calochortus umbellatus*	-	-	4
Hoover's calycadenia	*Calycadenia hooveri*	-	-	1B
Santa Cruz Mountains pussypaws	*Calyptridium parryi var. hesseae*	-	-	1B
Chaparral harebell	*Campanula exigua*	-	-	1B
Sharsmith's harebell	*Campanula sharsmithiae*	-	-	1B
Succulent owl's clover	*Castilleja campestris var succulenta*	T	E	1B
Lemmon's jewelflower	*Caulanthus lemmonii*	-	-	1B
Hoover's spurge	*Chamaesyce hooveri*	T	-	1B
Mt. Hamilton fountain thistle	*Cirsium fontinale var. campylon*	-	-	1B
Brewer's clarkia	*Clarkia breweri*	-	-	4
Beaked clarkia	*Clarkia rostrata*	-	-	1B
Serpentine collomia	*Collomia diversiflora*	-	-	4
Small-flowered morning-glory	*Convolvulus simulans*	-	-	4
Hoover's cryptantha	*Cryptantha hooveri*	-	-	1A
Mariposa cryptantha	*Cryptanthae mariposae*	-	-	1B
Hospital Canyon larkspur	*Delphinium californicum ssp.*	-	-	1B

Common Name	Scientific Name	Federal Status[1]	State Status[2]	CNPS List[3]
	interius			
Dwarf downingia	*Downingia pusilla*	-	-	2B
Tracy's eriastrum	*Eriastrum tracyi*	-	R	3
Bay buckwheat	*Eriogonum umbellatum var. bahiiforme*	-	-	4
Jepson's woolly sunflower	*Eriophyllum jepsonii*	-	-	4
Delta button-celery	*Eryngium racemosum*	-	E	1B
Spiny-sepaled button celery	*Eryngium spinosepalum*	-	-	1B
Diamond-petaled California poppy	*Eschscholzia rhombipetala*	-	-	1B
Stinkbells	*Fritillaria agrestis*	-	-	4
Talus fritillary	*Fritillaria falcata*	-	-	1B
Serpentine bluecup	*Githopsis pulchella ssp. serpentinicola*	-	-	4
Hogwallow starfish	*Hesperevax caulescens*	-	-	4
Tehama County western flax	*Hesperolinon tehamense*	-	-	1B
Foothill jepsonia	*Jepsonia heterandra*	-	-	4
Knotted rush	*Juncus nodosus*	-	-	2B
Forked hare-leaf	*Lagophylla dichotoma*	-	-	1B
Ferris' goldfields	*Lasthenia ferrisiae*	-	-	4
Legenere	*Legenere limosa*	-	-	1B
Serpentine leptosiphon	*Leptosiphon ambiguous*	-	-	4
Mt. Hamilton coreopsis	*Leptosyne hamiltonii*	-	-	1B
Spring lessingia	*Lessingia tenuis*	-	-	4
Mt. Hamilton lomatium	*Lomatium observatorium*	-	-	1B
Showy golden madia	*Madia radiata*	-	-	1B
Hall's bush-mallow	*Malacothamnus hallii*	-	-	1B
Sylvan microseris	*Microseris sylvatica*	-	-	4
Sierra monardella	*Monardella candicans*	-	-	4
Merced monardella	*Monardella leucocephala*	-	-	1A
Lime Ridge navarretia	*Navarretia gowenii*	-	-	1B
Colusa grass	*Neostapfia colusana*	T	E	1B
California adder's-tongue	*Ophioglossum californicum*	-	-	4
San Joaquin Valley Orcutt grass	*Orcuttia inaequalis*	T	E	1B

Common Name	Scientific Name	Federal Status[1]	State Status[2]	CNPS List[3]
Hairy Orcutt grass	*Orcuttia pilosa*	E	E	1B
Mt. Diablo phacelia	*Phacelia phacelioides*	-	-	1B
Michael's rein orchid	*Piperia michaelii*	-	-	4
Hooked popcorn-flower	*Plagiobothrys uncinatus*	-	-	1B
Warty popcorn-flower	*Plagiobothrys verrucosus*	-	-	2B
Hartweg's golden sunburst	*Pseudobahia bahiifolia*	E	E	1B
Delta woolly-marbles	*Psilocarphus brevissimus var. multiflorus*	-	-	4
Prairie wedge grass	*Sphenopholis obtusata*	-	-	2B
Greene's tuctoria	*Tuctoria greenei*	E	R	1B

[1] T= Threatened; E = Endangered

[2] E = Endangered; R = Rare

[3] 1A = considered to be extinct; 1B = rare, threatened, or endangered in California and elsewhere; 2B = rare, threatened, or endangered in California, but more common elsewhere; 3 = more information needed; 4 = plant of limited distribution

Source: Stanislaus County 2016b.

Special-Status Wildlife

Table 7-2 lists the special-status wildlife species that have been found to occur in Stanislaus County (Stanislaus County 2016b). The identified special-status wildlife species are primarily associated with the annual grasslands/vernal pool complexes on the eastern side of the county, the San Joaquin, Stanislaus, and Tuolumne Rivers and adjacent riparian habitat, and the lands west of Interstate 5.

TABLE 7-2
SPECIAL-STATUS WILDLIFE SPECIES IN STANISLAUS COUNTY

Common Name	Scientific Name	Federal Status[1]	State Status[2]
Birds			
Tri-colored blackbird	*Agelaius tricolor*	-	E
Golden eagle	*Aquila chrysaetos*	-	FP
Burrowing owl	*Athene cunnicularia*	-	SC
Swainson's hawk	*Buteo swainsoni*	-	T
Mountain plover	*Charadrius montanus*	-	SC
Western yellow-billed cuckoo	*Coccyzus americanus occidentalis*	T	E
Bald eagle	*Haliaeetus leucocephalus*	D	E
Yellow-breasted chat	*Icteria virens*	-	SC
Loggerhead shrike	*Lanius ludovicianus*	-	SC

Common Name	Scientific Name	Federal Status[1]	State Status[2]
Song sparrow ("Modesto" population)	*Melospiza melodia*	-	SC
California least tern	*Sternula antillarium*	E	E/FP
Least Bell's vireo	*Vireo bellii pusillus*	E	E
Mammals			
Pallid bat	*Antrozous pallidus*	-	SC
Townsend's big-eared bat	*Corynorhinus townsendiii*	-	C(T)
Fresno kangaroo rat	*Dipodomys nitratoides exilis*	E	E
Western mastiff bat	*Eumops perotis californicus*	-	SC
Western red bat	*Lasiurus blossevillii*	-	SC
Riparian woodrat	*Neotoma fuscipes riparia*	E	SC
Riparian brush rabbit	*Sylvilagus bachmani riparius*	E	E
American badger	*Taxidea taxus*	-	SC
San Joaquin kit fox	*Vulpes macrotis mutica*	E	T
Reptiles			
Western pond turtle	*Emys marmorata*	-	SC
Blunt-nosed leopard lizard	*Gambelia sila*	E	E
San Joaquin whipsnake	*Masticophis flagellum ruddocki*	-	SC
Alameda whipsnake	*Masticophis lateralis euryxanthus*	T	T
Coast horned lizard	*Phrynosoma blainvillii*	-	SC
Giant garter snake	*Thamnophis gigas*	T	T
Amphibians			
California tiger salamander	*Ambystoma californiense*	T	T
Foothill yellow-legged frog	*Rana boylii*	-	SC
California red-legged frog	*Rana draytonii*	T	SC
Western spadefoot	*Spea hammondii*	-	SC
Fish			
Green sturgeon	*Acipenser medirostris*	T	SC
San Joaquin roach	*Lavinia symmetricus ssp. 1*	-	SC
Hardhead	*Mylopharodon conocephalus*	-	SC
Steelhead - Central Valley DPS	*Oncorhynchus clarkii henshawi*	T	-
Steelhead - South Central DPS	*Oncorhynchus mykiss*	T	SC
Central Valley spring-run chinook salmon	*Oncorhynchus tshawytscha*	T	T
Sacramento splittail	*Pogonichithys macrolepidotus*	-	SC

Common Name	Scientific Name	Federal Status[1]	State Status[2]
Invertebrates			
Conservancy fairy shrimp	*Branchinecta conservatio*	E	-
Longhorn fairy shrimp	*Branchinecta longiantenna*	E	-
Vernal pool fairy shrimp	*Branchinecta lynchi*	T	-
Vernal pool tadpole shrimp	*Lepidurus packardi*	E	-
Valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	T	-

[1] E = Endangered; T = Threatened; D = Delisted

[2] E = Endangered; T = Threatened; C = Candidate for listing; SC = Species of Special Concern; FP = Fully protected

Source: Stanislaus County 2016b.

Local and Regional Plans and Ordinances

The Stanislaus County General Plan contains policies to protect and enhance oak woodlands and other native hardwood habitat, but the County does not have a tree preservation ordinance at this time. There are no habitat conservation plans (HCPs) or similar conservation plans applicable specifically to Stanislaus County. In 2007, the PG&E San Joaquin Valley Operations and Maintenance HCP was adopted, which covers all or part of nine counties within the San Joaquin Valley, including Stanislaus County. The HCP covers 23 wildlife and 42 plant species for 33 routine operations and maintenance activities for PG&E's electrical and gas transmission and distribution systems. This HCP applies only to PG&E's gas and electrical transmission and distribution facilities, lands, access routes, minor expansion areas, and mitigation areas.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Significance Thresholds

According to Appendix G of the CEQA Guidelines, a project may have a significant impact on the environment if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS,
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFW or USFWS,
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to marsh, vernal pool, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means,

- 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.

- Conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, or

- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Impact BIO-1: Special-Status Species and Habitats

Park improvements described in the Parks Master Plan have the potential to result in significant impacts to special-status plant and wildlife species (see Tables 7-1 and 7-2). This potential would be limited primarily to improvements that involve construction of new facilities in areas that provide suitable habitat for special-status fish, wildlife and plants. Areas of biological sensitivity would include vernal pool areas along the lower Sierra foothills and eastern Valley Floor, formations and overlying soils in foothills areas that support unique floras including special-status plant species trees and native species habitats that may provide suitable foraging and/or nesting habitat for special-status birds. Open grassland areas with stock ponds and other water features may provide suitable habitat for species such as the California tiger salamander.

Park improvements most likely to affect special-status species habitat are proposed improvements in the regional parks and potentially in portions of the fishing access areas, which are located in or near river-side areas. Most neighborhood and community parks are, on the other hand, located in developed areas where potential special-status species habitat has been removed from the park site during its construction. In most cases, these park facilities are surrounded by streets, residences and other urban development. Planned improvements to these areas would generally not be expected to result in significant biological impacts.

Development of an estimated 200 acres of planned new neighborhood parks over the planning period would, however, have the potential for impacts on special-status species. These park sites have not been located, and therefore defining the potential biological impacts of neighborhood park development is too speculative for analysis. Neighborhood site selection and improvement planning should, however, include a biological inventory of candidate sites.

Proposed improvements to Frank Raines Regional Park would involve potential for significant biological impacts in some areas proposed for improvement. New camping, restroom and other facilities, including a 50 to 100-person amphitheater for education and special events, and planned restoration of existing facilities, would involve disturbance primarily within existing disturbed areas. Planned facilities would be located within the existing base area near Del Puerto Canyon Road from which native plant and wildlife habitat has been largely if not completely removed. This area is already subject to intensive recreational use. Provided that improvements do not involve extensive grading of undisturbed land, these improvements would be expected to have less than significant biological effects.

Plans for Frank Raines Regional Park include opening approximately 500 acres in the upper elevations of the park for expanded OHV use. OHV access to this area has been excluded in the past, and as a result the steeper mountain and hillsides of this area are largely undisturbed, at least by OHV activity. Some limited road building has occurred for access and fire control along some of the ridge lines. Opening this area for OHV use would involve cutting of new access trails to

facilitate access. Upon opening to the public, OHV enthusiasts would explore and enter suitable terrain, to be followed by subsequent visitors building, eventually resulting in a network of OHV trails similar to what has developed on the lower slopes of the park.

The biological resources of the park are understood only in the most general sense. Soils mapping and habitat descriptions indicate that portions of the expansion area are on serpentine soils, which support unique plant communities including threatened or endangered plants. Available information indicates that a restricted habitat type – Diablan sage scrub – is located in this portion of the County. In the absence of botanical inventory, it must be assumed that some portion of the expansion area is populated by sensitive plant communities and potentially special-status plants.

Similarly, neither has there been a special-status wildlife inventory of the park or the expansion area. As special-status wildlife species are known to populate the area in general, it must also be assumed the area is used by special-status species and further that the species and the quality of habitat available could be adversely affected by OHV trail construction and use.

In the absence of biological inventory information, it is not possible to predict the exact nature and extent of biological impact that would result from opening new areas for OHV use. Proposed mitigation measures provide for conducting biological inventory work and further consideration of potential biological impacts, and formulation of OHV use plans that would avoid or minimize biological impacts, in advance of OHV use expansion. This work would have the potential to avoid, reduce or substantially lessen the biological impacts of the Frank Raines OHV expansion.

Planned improvements to La Grange Regional Park OHV area are not expected to involve any substantial biological effects. Previously-existing biological values of the site have been removed as a result of intensive OHV use. Construction of an amphitheater, campgrounds, water supplies, toilet installation, and further grading and paving of access and parking areas within this highly disturbed area would not result in any substantial adverse biological effect and would be considered less than significant for the purpose of this EIR.

Potential biological effects at Laird Regional Park would be confined to potential effects associated with installation of a fishing dock and paved boat launch ramp. These facilities would be constructed on a sandy river bank that is exposed to annual inundation and erosion with changes in river flow. Although there do not appear to be any sensitive habitat along and above the river bank, the value of in-water habitats is unknown. Other improvements, including construction of an amphitheater, parking and access pavement and installation of playground equipment and shade structures would occur in previously-disturbed areas. Dock and boat ramp development should be preceded by a biological study that would identify especially sensitive biological resources so that they could be avoided in the design of these facilities; this is provided for in the mitigation measures below.

Planned improvements at Modesto Reservoir West Side and South Side facilities would involve a mix of activities, most of which, by number, would not involve significant environmental effects, assuming these are to be confined to existing developed areas and do not involve water encroachment. These would include such improvements as construction a small amphitheater, improving the entrance station, adding a walking and biking trail, installation of benches, access improvements and construction of play amenities such as a fishing pond, natural garden, picnic areas and campground improvements.

The Master Plan anticipates a range of more substantial improvements along the Modesto Reservoir west side, which would involve grading of hills and hillsides to increase the accessibility and day use access for these areas as well as the development of related access roads and parking and new

camping and day use facilities. These improvements would involve substantial grading activity on relatively undisturbed land area. Although it is unlikely that these areas are populated by special status plant or wildlife species, development in this area should be preceded by biological surveys and modification of design or construction methods to avoid or minimize significant biological impacts.

At Woodward Reservoir, the Master Plan contemplates a range of improvements to Bayview Point, including addition of underground power, new water supply, showers and restrooms and event facilities as well as the addition of new campsites in existing camping areas. Bayview Point has been subject to intensive public use for a number of years, and as a result retains little natural vegetation or wildlife habitat. Proposed improvements discussed above would not involve shoreline encroachment or be likely to involve adverse effects to biological resources, which for the purposes of this EIR would be considered less than significant.

The northside area of the park is presently undeveloped except for the model airplane field and go-kart area. However, the Master Plan envisions the development of a signature outdoor amphitheater together with a range of amenities that would provide a suitable site for performing groups as well as for educational and other special events. This would include development of access roads, camping areas and over time potentially fresh water supply and sewer service. In the meantime, portable water supplies, restrooms and sewer lines or sewage treatment facilities may be installed.

The northside area is largely undisturbed by development, although the area has been periodically mowed for weed and fire control. This area includes several vernal pools and small waters that are likely jurisdictional, and there are signs that this area is suitable habitat for the special-status California tiger salamander. As a result, development of this area has the potential for significant impacts on wetlands, Waters of the U.S. and special-status species, including but not limited to California tiger salamander. Without further information, planned development in this area would involve a potentially significant effect on biological resources. Development of this presently undeveloped area would also involve the possibility for significant soil erosion and water quality effects. County Parks is preparing environmental studies of this area in order to better define the nature of environmental resources in this area and the potential impacts of planned development on them.

Level of Significance: Potentially significant

Mitigation Measures:

BIO-1: Prior to approving expansion of OHV use into new terrain at Frank Raines Regional Park, the County shall have a qualified biologist conduct a biological resource inventory of the proposed OHV-use area, documenting any potentially-occurring special-status plant or wildlife species and/or their habitat on or near the site. The assessment shall describe alternatives for avoiding or minimizing special-status species as well as design or mitigation measures that could avoid or reduce impacts to special-status species or their habitat to a less than significant level. Proposals for OHV expansion shall be modified or mitigated as required to reduce potential biological effects to a less than significant level. Unless, it is clear in the biologist's report that potential impacts are relatively minor and readily mitigated, or in the event that the project has the potential to involve significant and unavoidable biological effects, then further CEQA analysis involving public review will be needed.

BIO-2: Prior to initiation of grading or other substantial disturbance of the proposed boat launch ramp and fishing pier at Laird Regional Park, and the undeveloped portions of the

Modesto Reservoir Westside area, and the County shall have a qualified biologist conduct a biological resource assessment of the project documenting any potentially-occurring special-status plant or wildlife species and/or their habitat on or near the site. The assessment shall describe feasible design or mitigation measures that would avoid or reduce impacts to any special-status species, or their habitat, to a less than significant level. The project shall be modified or mitigated as required to reduce biological effects to a less than significant level. In the event that the project would involve significant biological effects that cannot be readily mitigated, then further CEQA environmental review would be needed.

BIO-3: Prior to approval and subsequent construction of recreational development in the Woodward Reservoir Northside area, the County shall have a qualified biologist conduct a biological resource assessment of the project documenting any potentially-occurring special-status plant or wildlife species and/or their habitat on or near the site. The assessment shall describe feasible design or mitigation measures that would avoid or reduce impacts to any special-status species, or their habitat, present to a less than significant level. The project shall be modified or mitigated as required to reduce biological effects to a less than significant level. In the event that the project would involve significant and unavoidable biological effects, then further CEQA environmental review would be needed.

BIO-4: Development of new neighborhood parks or other new park facilities should be preceded by a biological assessment of the resources of the site so as to avoid avoidable and potentially significant biological impacts.

Significance After Mitigation: Less than significant, or additional CEQA review is required

Impact BIO-2: Sensitive Plant Communities

Proposed Master Plan park improvements would be located primarily in existing developed areas and would not typically involve potential impacts to sensitive plan communities such as riparian areas or vernal pool fields. As currently defined, planned improvements at Frank Raines, Laird, Modesto Reservoir, Woodward Reservoir and La Grange Regional Parks would not involve any substantial conflicts with riparian vegetation or encroachment into vernal pool areas. Planned access, parking and other improvements at fishing access points, and development of an access trail and non-motorized boat launch at Riverdale Park has the potential to involve some but likely minor effects of existing riparian vegetation along the river edge, but vegetation spacing would allow these impacts to be minimized.

Other improvements that may be considered by the County in the future, but which are not confined to existing facilities, have potential for effects on sensitive plant communities including riparian wetlands, oak woodlands, and vernal pools. Other sensitive vegetation communities in the County include, but are not limited to, Elderberry Savanna, Great Valley Cottonwood Riparian Forest, Great Valley Mixed Riparian Forest, Great Valley Oak Riparian Forest, and Northern Hardpan Vernal Pool.

As with special-status species, park improvements most likely to affect sensitive vegetation would be those in the regional parks, as most neighborhood and community parks are located in more developed areas. Aside from regional parks, improvements at fishing access points could encroach upon riparian wetlands and vegetation. Mitigation described below typically reduce potential impacts on sensitive vegetation communities, reducing impacts to a level that would be less than significant. However, projects that would involve disturbance to substantial areas of riparian vegetation or that would involve encroachment into vernal pool areas or other sensitive

communities, may involve significant environmental effects that cannot be mitigated to a less than significant level without additional environmental review.

Level of Significance: Potentially significant

Mitigation Measures:

BIO-5: Fishing access, boat launch or other river-side improvements in or adjacent to riparian areas shall be inspected by a qualified biologist, who shall identify design or mitigation measures that would reduce the potential effects of the project to a less than significant level. The biologist's recommendations shall be incorporated into the project.

BIO-6: The County shall have a qualified biologist prepare an assessment of potential biological effects and recommendations for avoiding or reducing effects to a less than significant level for recreational improvements that may involve encroachment into other sensitive plant communities identified above. In the event that potential biological effects cannot be reduced to a less than significant level, then a separate CEQA review of the project shall be conducted.

Significance After Mitigation: Less than significant

Impact BIO-3: Waters of the U.S. and Wetlands

Master Plan park improvements have potential to result in impacts to jurisdictional Waters of the U.S., including wetlands.

The extent of potential impact is unknown at this time, because specific project locations and designs have not been prepared.

The USACE is responsible for issuing permits for the placement of dredged or fill material into Waters of the U.S. The CDFW requires that applicants enter into a Fish and Game Code §1602 Streambed Alteration Agreement prior to commencing work in bed and bank streams. Reclamation districts, the State Lands Commission, and the Central Valley Flood Protection Board may require encroachment permits for work in waterways or floodplains under their authority. These permits typically have conditions attached that would reduce impacts to a less than significant level. In conjunction with mitigation described below, permit requirements would avoid or minimize impacts on Waters of the U.S., thereby reducing impacts to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures:

BIO-7: A qualified biologist shall prepare a wetlands assessment for projects involving potential disturbance of Waters and wetlands. Potential for jurisdictional wetlands will be evaluated pursuant to the U.S. Army Corps of Engineers (USACE) guidelines. If no Waters or wetlands are identified, then no further mitigation is required.

BIO-8: If wetlands or other Waters of the U.S. are identified, project design shall avoid them to the extent feasible. If wetlands and Waters cannot be entirely avoided, a mitigation plan shall be developed and implemented.

BIO-9: All required permits will be secured for work within jurisdictional waters from USACE, CDFW, the Regional Water Quality Control Board (RWQCB), and other agencies with jurisdiction prior to the start of construction work.

Significance After Mitigation: Less than significant

Impact BIO-4: Wildlife Migration Corridors and Nesting Sites

As indicated in the discussion under Impact BIO-1, park improvements could impact nesting habitats of species. This would more likely occur in the regional parks, as neighborhood and community parks are in more developed areas and are more developed in character. Improvements that directly affect trees and woodland could affect migratory bird species that nest in these trees. The Migratory Bird Treaty Act extends protections to migratory bird species, so impacts on migratory birds would be a significant impact.

Migratory wildlife corridors would also be found primarily in regional parks, but proposed improvements to fishing access points could indirectly affect migratory fish. Mitigation Measures BIO-1, BIO-6, and BIO-7 would minimize some impacts on migratory species. In addition, the following mitigation measure would further reduce impacts on migratory species.

Level of Significance: Potentially significant

Mitigation Measures:

BIO-10: Pre-construction surveys for nesting raptors and migratory birds will be conducted for projects where trees requiring trimming or removal are identified during the preliminary review. In the event that active nests are located, the need for construction restrictions will be determined on a case-by-case basis in consultation with the CDFW. In most cases, tree removal and/or trimming will need to be delayed until the young have fledged.

BIO-11: If a migratory corridor or nursing site is found to be present on the project site as part of a biological survey, the County shall prepare a plan to avoid or minimize impacts on these areas. The County shall consult with, and obtain necessary permits from, State and federal agencies with jurisdiction over the migratory species.

Significance After Mitigation: Less than significant

Impact BIO-5: Local Biological Resource Ordinances and Habitat Conservation Plans

As discussed in the Environmental Setting portion of this chapter, there are no applicable local ordinances or HCPs that apply to Stanislaus County. While the County has a General Plan policy protecting oak woodlands, it has not adopted any ordinances to implement this policy. Nevertheless, Mitigation Measure BIO-4 proposes to protect oak woodlands from adverse impacts associated with implementation of the Parks Master Plan.

It is conceivable that HCPs could be adopted in the future that would cover County park areas. Should this occur, the County would change its management of park areas to be consistent with the objectives of the HCP. Currently, no HCPs apply to County parks and recreational facilities. Impacts on local biological resource ordinances and HCPs would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required.

8.0 CULTURAL RESOURCES

ENVIRONMENTAL SETTING

Information in this chapter is drawn from the Stanislaus County General Plan EIR. The EIR information was compiled from anthropological, archaeological, and historic studies conducted over the past several decades on both public and private lands within the San Joaquin Valley and adjoining areas of the Sierra Nevada, the Delta, and the southern Sacramento Valley, including the following sources:

- An overview of archaeological site and other records maintained by the Central California Information Center of the California Historical Resources Information System at California State University Stanislaus at Turlock, California.
- Field inspections involving the range of land types which could be affected by development governed by the General Plan.
- A review of existing reports and documents related to previous archaeological surveys.
- A review of National Register of Historic Places (NRHP) listings for the region.
- Review of published and unpublished ethnographic, historic and archaeological reports and other documents, including results of prior Native American consultation.

In addition to archaeological and historical concerns, this chapter also describes and analyzes potential impacts of the Parks Master Plan on tribal cultural resources as defined in California AB52. California recently has enacted legislation to give tribes more involvement in land use decisions that potentially may affect resources of value to their cultures. The legislation and the procedures associated with its implementation are described in this chapter.

Prehistoric Setting

Stanislaus County includes the territories of the Northern Valley Yokuts and the Plains and Sierra Miwok. Geographically, the Miwoks occupied the eastern edge of Stanislaus County in the foothills, while the Yokuts lived in the Valley (Santos 2002, cited in Stanislaus County 2016b).

It is estimated that the Yokuts population ranged from 11,000 to 31,000 at European contact and was concentrated along waterways and on the east side of the San Joaquin River (Wallace 1978, Latta 1977, cited in Stanislaus County 2016b). Settlements were typically composed of single-family dwellings, sweathouses, and ceremonial structures. Subsistence revolved around water resources in the San Joaquin Valley (Wallace 1978, cited in Stanislaus County 2016b).

The Miwok population at European contact is estimated to have been around 9,000. Miwok territory was focused on the westward slope of the Sierra Nevada range and in the eastern Central Valley along the San Joaquin and Sacramento rivers. Miwok villages were composed of single-family dwellings, sweat houses, and semi-subterranean dance houses. Subsistence was focused on

gathering plant foods, such as acorns, and deer hunting (Kroeber 1919, California Department of Parks and Recreation 2013, cited in Stanislaus County 2016b).

Typically, prehistoric sites are represented by the following:

- Substantial middens (organic cultural deposits) with surface lithic (stone flake) scatters and surface features (mortars, housepit depressions) some of which are referenced in ethnographic reports.
- Surface lithic scatters without associated subsurface (buried) components (including lithic scatters around vernal pools).
- Food processing stations (primarily mortar hole complexes).
- Mortuary complexes.
- Trails.
- Petroglyphs.

Historic Setting

Interior northern California was initially visited by Anglo-American fur trappers, Russian scientists, and Spanish-Mexican expeditions during the early part of the 19th century. European presence in Stanislaus County began as early as 1806, when Gabriel Moraga and Father Pedro Munoz led 25 men from Mission San Juan Bautista to explore the Central Valley for suitable mission locations (Stanislaus County 2016b). By the mid-1820s, hundreds of fur trappers were annually traversing the Central Valley on behalf of the Hudson's Bay Company (Maloney 1945). By the late 1830s and early 1840s, several small permanent European-American settlements had emerged in the Central Valley and adjacent foothill lands. These included ranchos in the interior Coast Ranges and the settlement at New Helvetia (Sutter's Fort) at the confluence of the Sacramento and American Rivers (Sacramento).

With the discovery of gold in the Sierra Nevada in 1848, large numbers of European-Americans, Hispanics, and Chinese arrived in and traveled through Stanislaus County. Early settlement in the County was focused on the Sierra Nevada foothills and on the three rivers in the area (San Joaquin, Stanislaus, and Tuolumne). Communities such as La Grange and Knight’s Ferry began as mining camps along the Stanislaus and Tuolumne Rivers. By the 1860s, larger and more permanent settlements were developing along the Stanislaus River, including Oakdale. Steamboats and small barges on the San Joaquin River provided early transportation for freight and passengers. Many of the early communities remain, containing core areas which date back to the 19th century and numerous important historic structures and features.

Beginning in the 1870s, river towns were generally abandoned in favor of railroad towns. Development of the agricultural industry on the valley floor was stimulated by the extension of the Central Pacific Railroad to Stanislaus County. Railroads played a key role in the formation of Modesto and Turlock, as well as the development of small commercial centers such as Oakdale, Waterford, and Newman.

Historic sites in Stanislaus County include ranch complexes, mining-related sites, transportation (road and railroad) corridors, separate buildings, structures and features within and near historic communities, isolated buildings and features, as well as less well-known but nonetheless important

residential structures and refuse disposal sites. These sites, structures and features are widely scattered throughout the County, and they tend not to be as closely linked with surface water sources as the prehistoric sites. One prominent historical resource is the community of La Grange, which was the County seat and is currently part of La Grange Regional Park.

The historical community of La Grange straddles SR 132 on the south bank of the Tuolumne River near the eastern boundary of the County. Surrounding lands are grazing and range land, but the community itself dates the early 1850's, when French Bar miners relocated their settlement to higher ground due to flooding concerns. La Grange served briefly as the County seat from 1856-1862. The community includes several surviving historical structures, which are intermixed with more recent structures; historical structures and sites include a school, hotel, boarding house, Wells Fargo office and cemeteries. The County owns and is responsible for fifteen separate historical sites and structures in La Grange.

Paleontological Resources

During the Mesozoic Era (208-65 million years ago) the Sierra Nevada formed, but the region that would become the San Joaquin Valley lay several thousand feet below the surface of the Pacific Ocean. During the late Cenozoic Era (65-2 million years ago), the Sierra Nevada eroded, the Coast Ranges rose, and the San Joaquin Valley began to form. In the Pleistocene Epoch (2 million to 10,000 years ago), the Sierra Nevada range was increasingly elevated and glaciated, resulting in the formation of features such as Yosemite Valley. During the Holocene Epoch (10,000 years ago to the present), the San Joaquin Valley was above sea level and achieved its present appearance. The valley contained freshwater lakes and rivers attractive to herds of prehistoric grazing animals, including Columbian mammoth, camel, bison, and native horse. The fossil remains of these creatures have been found in San Joaquin County and adjacent areas (San Joaquin County 2016a).

Geological materials underlying the Program Area include the recent (Quaternary) sedimentary deposits of the Modesto and Riverbank Formation. Both formations have produced paleontological materials throughout the Central Valley, including land mammals, birds, reptiles, and amphibians (California High Speed Rail Authority 2012). A search of records of the Museum of Paleontology at the University of California, Berkeley, indicated that most paleontological specimens found in Stanislaus County were concentrated in the foothill regions in the east and west; however, remains were found throughout the County (UCMP 2016). The paleontological sensitivity of the County as described in the General Plan EIR is shown on Figure 9-4 in the following chapter.

CEQA Requirements

Criteria specified in CEQA Guidelines §15064.5 suggest that an "important historical or archaeological resource" is one which generally meets the criteria for listing on the California Register of Historical Resources, including the following:

- Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
- Is associated with the lives of persons important in California’s past;
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic value; or

- Has yielded, or may be likely to yield, information important in prehistory or history.

The fact that a resource is not listed in, or determined to be eligible for listing in, the California Register of Historical Resources, or is not included in a local register of historical resources or identified in a historical resources survey, does not preclude a lead agency from determining that a resource may be a historical resource as defined in Public Resources Code §5020.1(j) or §5024.1 (CEQA Guidelines §15064.5).

Regulatory Setting

Federal

Some projects that are part of the Parks Master Plan may involve components that require federal permits or use federal lands. For these projects, evaluation of archaeological and historic sites must conform with Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations (36 CFR Part 800), Section 2(b) of Executive Order 11593, Section 101(b)(4) of the National Environmental Policy Act, the Archaeological Resources Protection Act, the Native American Grave Protection and Repatriation Act of 1990, and other rules and regulations. Relevant federal agencies that may be involved in proposed actions include the ACOE and the USFWS. Federal requirements generally exceed CEQA provisions, so compliance with Section 106 of the NHPA typically ensures compliance with requirements in the CEQA Guidelines for assessing impacts to cultural resources.

Tribal Cultural Resources

Impacts on cultural resources, particularly archaeological resources and human burials of Native American origin, have long been a subject of CEQA analysis. SB 18, enacted in 2004, requires consultation with tribes on potential cultural resource impacts when a general plan or a specific plan is adopted or amended, or when an open space area is designated.

In 2014, the California Legislature enacted AB 52, which applies to projects for which a Notice of Preparation for an EIR or a notice of filing of a Negative Declaration is issued on or after July 1, 2015. AB 52 focuses on CEQA consultation with Native American tribes on projects that could potentially affect resources of value to the tribes. The intent of this consultation is to avoid or mitigate potential impacts on "tribal cultural resources," which are defined as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

- Included or determined to be eligible for inclusion in the California Register of Historical Resources

- Included in a local register of historical resources as defined in subdivision (k) of public Resources Code Section 5020.1.

Under AB 52, when a tribe requests consultation with a CEQA lead agency on projects within its traditionally and culturally affiliated geographical area, the lead agency must provide the tribe with notice of a proposed project within 14 days of a project application being deemed complete or at the time of the Notice of Preparation if an EIR is being prepared. The tribe has up to 30 days to respond to the notice and request consultation; if consultation is requested, then the local agency has up to 30 days to initiate formal consultation. Matters which may be subjects of consultation include the

type of CEQA environmental review necessary, the significance of tribal cultural resources, and project alternatives or appropriate measures for preservation or mitigation of the tribal cultural resource that the tribe may recommend to the lead agency. The consultation process ends either (1) when the parties agree to mitigate or avoid a significant effect on a tribal cultural resource, or (2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Significance Thresholds

According to Appendix G of the CEQA Guidelines, a project may have a significant impact on the environment if it would:

- Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines §15064.5,
- Cause a substantial adverse change in the significance of an archaeological resource as defined in CEQA Guidelines §15064.5,
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature, or
- Disturb any human remains, including those interred outside of formal cemeteries.

Appendix G of the CEQA Guidelines also states that a project may have a significant impact on the environment if it would cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Impact CULT-1: Historical and Archaeological Resources

Project activities associated with the proposed Parks Master Plan may result in impacts to archaeological and historic sites that affect the characteristics which render a site significant under CEQA or qualify a property for inclusion on the NRHP. Adverse effects may include, but are not limited to:

- Physical destruction, damage, or alteration of all or part of a historic property, as could occur if a site were subjected to direct construction impacts.

- Isolation of a historic property, or alteration of the character of its setting when that character contributes to the property's eligibility for the NRHP or its cultural significance.

- Introduction of visual, audible, or atmospheric elements that are out of character with the property or which alter its setting.

Potential for cultural resources impacts at any particular location or for any specific project need to be determined based on site-specific background studies and field surveys. In some situations, survey data is insufficient for fully evaluating the significance of a particular resource, and sub-surface testing may be necessary.

Intensive-level pedestrian surveys have been undertaken within only a portion of the overall County. Only a small percentage of the prehistoric and historic sites presently documented (recorded) within the County have been subjected to formal eligibility or significance evaluation. As a result, reliable conclusions regarding the potential cultural resources effects of planned park improvements cannot be presented. The need for cultural resources surveys and/or additional investigation will need to be made on a project-by-project basis.

The Parks Master Plan indicates that a Historic District Master Plan shall be prepared for the town of La Grange within the La Grange Regional Park. The County currently is responsible for fifteen separate historical sites and structures in La Grange. The Historic District Master Plan would consist of a facilities inventory and a plan for management of these resources. The Historic District Master Plan is expected to provide direction for the review of projects under the existing historic zoning for the area as well as design and preservation guidelines contained in the Master Plan.

Development and implementation of the La Grange Historic District Master Plan is expected to assist in the preservation and enhancement of the historical character of La Grange; therefore, implementation of the Parks Master Plan would have a beneficial impact on La Grange. This is not meant to suggest that no additional effort need be made to minimize adverse effects on La Grange historical resources or others in the County. This mitigation measures described below should be observed in conjunction with the preparation of the Historic District Master Plan and in the subsequent review of development or restoration projects in La Grange.

Previously unidentified cultural resources could be inadvertently encountered during the course of project construction activity. The establishment of procedures to address historical or archaeological discoveries if they should occur would reduce potential effects to a less than significant level. These procedures are set forth in the mitigation measures presented below.

Level of Significance: Potentially significant

Mitigation Measures:

CULT-1: The LaGrange Historic District Master Plan should identify the historic resources of the District, their historic significance and the factors contributing to the significance. The LGHDMP shall define procedures for development, restoration or other management actions required to preserve and enhance La Grange historic values, including applicable state and federal standards and guidelines.

CULT-2: For projects not exempt from CEQA review, the County shall obtain a cultural resources record search from the Central California Information Center (CCIC) at California State University Stanislaus in Turlock.

CULT-3: If recommended by the CCIC, the County shall retain a qualified archaeologist to complete an archaeological survey of the project site, evaluate the importance of any resources found under CEQA and to provide recommendations regarding proper handling of important resources consistent with the requirements of the CEQA Guidelines. The County shall implement the archeologist's recommendations in conjunction with project construction.

CULT-4: Where avoidance of potentially significant effects is not possible, the County shall provide mitigation of potential adverse effects to the standards prescribed in the CEQA Guidelines or applicable federal guidelines, as appropriate. Mitigation measures could include a range of treatment options, including a) detailed recordation, b) undertaking historic documentary research as a means of preserving the information values of a particular site, or c) data recovery-level excavation. These measures shall be developed in consultation with a qualified archaeologist.

CULT-5: If any archaeological remains are unearthed during project construction, construction within 50 feet of the find shall be halted and a qualified archaeologist shall be retained to evaluate the find and recommend steps to mitigate impacts to the resource pursuant to the CEQA Guidelines. The project shall incorporate the mitigation measures recommended by the archaeologist.

Significance After Mitigation: Less than significant

Impact CULT-2: Tribal Cultural Resources

Projects that are associated with the Parks Master Plan would be subject to the provisions of AB 52, and therefore would require consultation with potentially interested tribes if any have previously requested consultation. The establishment of procedures to address impacts on tribal cultural resources, in accordance with AB 52 and CEQA, would reduce potential effects to a less than significant level. These procedures are set forth in the following mitigation measure. Mitigation measures described under Impact CULT-1 would further reduce potential impacts.

Level of Significance: Potentially significant

Mitigation Measures:

CULT-6: If a local tribe, as part of consultation under AB 52, identifies a tribal cultural resource on a proposed project site, the County shall consult with the tribe and with other involved agencies to develop mitigation measures that can be incorporated in the project to avoid or minimize impacts on the tribal cultural resource. If the County and the tribe cannot agree on mitigation after a reasonable and good faith effort, the County shall develop and implement mitigation measures deemed feasible to avoid or minimize potential impacts on tribal cultural resources as part of its CEQA environmental review.

Significance After Mitigation: Less than significant

Impact CULT-3: Paleontological Resources

The Valley portion of Stanislaus County has been known to yield paleontological resources. It is conceivable that excavation associated with project construction could unearth paleontological

materials of unknown significance. The establishment of procedures to address paleontological discoveries if they should occur would reduce potential effects to a less than significant level. These procedures are set forth in the following mitigation measure, which would reduce potential impacts on paleontological resources to a less than significant level.

Level of Significance: Potentially significant

Mitigation Measures:

CULT-7: If any paleontological resources are encountered during project construction, all construction activity in the vicinity of the encounter shall cease until a qualified paleontologist examines the materials, determines their significance, and recommends mitigation measures that would reduce potentially significant impacts to a less than significant level, in accordance with CEQA. The County shall be immediately notified of the discovery, and the County or its contractor shall be responsible for retaining a qualified paleontologist and for implementing mitigation measures recommended by the paleontologist.

Significance After Mitigation: Less than significant

Impact CULT-4: Human Burials

The extent to which human remains are buried outside of formal cemeteries in Stanislaus County is unknown. Excavation associated with project construction could encounter human burials, which potentially could be Native American in origin.

CEQA Guidelines §15064.5(e) describes the procedure to be followed when human remains are uncovered in a location outside a dedicated cemetery. These requirements are incorporated into the mitigation measure below. If these procedures are followed, potential impacts related to burials would be reduced to a less than significant level.

Level of Significance: Potentially significant

Mitigation Measures:

CULT-8: In the event that human remains are encountered during earthwork, work in the vicinity of the find shall be halted and the County Coroner shall be notified to determine if an investigation of the death is required. If the County Coroner determines that the remains are Native American in origin, then the County Coroner must contact the Native American Heritage Commission within 24 hours. The Native American Heritage Commission shall identify the most likely descendants of the deceased Native American, and the most likely descendants may make recommendations on the disposition of the remains and any associated grave goods with appropriate dignity. If a most likely descendant cannot be identified, the descendant fails to make a recommendation, or the landowner rejects the recommendations of the most likely descendant, then the landowner shall rebury the remains and associated grave goods with appropriate dignity on the property in a location not subject to further disturbance.

Significance After Mitigation: Less than significant

9.0 GEOLOGY, SOILS, AND MINERAL RESOURCES

ENVIRONMENTAL SETTING

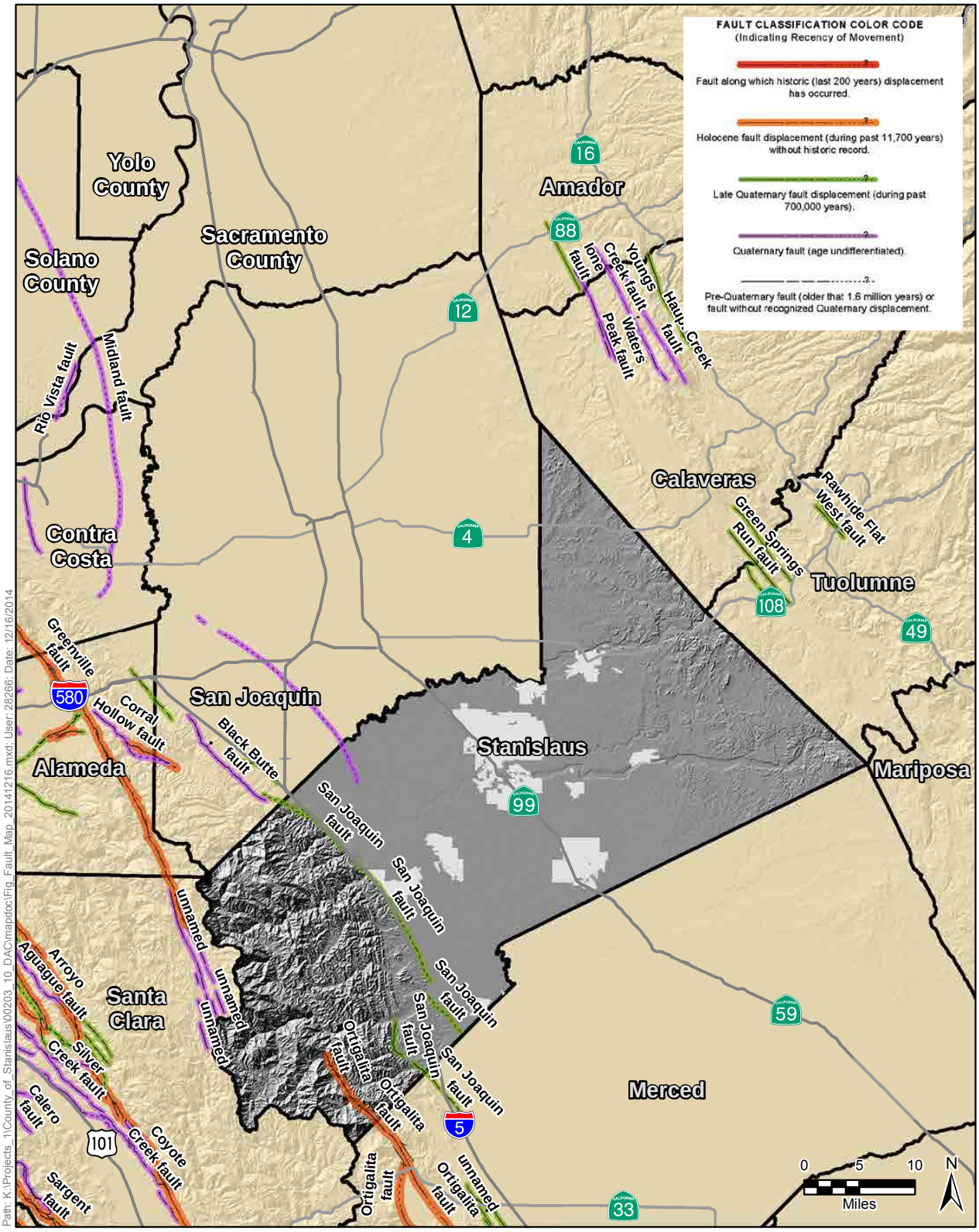
Geomorphology and General Geology

Stanislaus County spans three geomorphic provinces: the Great Valley, the Sierra Nevada, and the Coast Ranges. The largest area of the county is in the San Joaquin Valley portion of the Great Valley geomorphic province, which is the County's flat, lowland center. Beneath the San Joaquin Valley floor is a thick sequence of sedimentary deposits. The major geologic units of this province, listed from west to east, are the San Joaquin River deposits of the Dos Palos Alluvium, Quaternary alluvial fan deposits, the sedimentary alluvial deposits of the Modesto and Riverbank Formations, the alluvium of the Turlock Lake Formation, the andesitic conglomerates of the Mehrten Formation, the consolidated alluvium of the Laguna Formation, localized outcrops of the sedimentary Ione Formation, and bands of Quaternary alluvium in stream drainages (Wagner et al. 1991).

Along the eastern edge of the county are the Sierra Nevada foothills of the Sierra Nevada geomorphic province. The Sierra Nevada geomorphic province is a linear, tilted fault block almost 400 miles long that extends from northern Butte County to the Mojave Desert. Its western slope is gentle, in contrast to its steep eastern slope. The western slope is deeply incised by rivers and disappears beneath the sediments of the Great Valley (California Geological Survey 2002:2). The major geologic units of this province are the Gopher Ridge Volcanics, the rhyolitic tuff and sedimentary rocks that make up the Valley Springs Formation, the Mehrten Formation, and the volcanic rock of the Table Mountain Latite (Wagner et al. 1991).

A broad band on the west side of the county contains the steeper Coast Ranges geomorphic province (California Geological Survey 2002). The Coast Ranges geomorphic province is characterized by parallel to subparallel northwest-trending mountain ranges formed by active uplift related to complex tectonics of the San Andreas fault/plate boundary system (Norris and Webb 1990:359–380). The major geologic units of this province consist of a central "core" of Mesozoic units—primarily the Cretaceous Panoche Formation and Franciscan Complex—flanked on the east by an upward tilting sequence of marine and terrestrial sedimentary units that include the Moreno Formation, the San Pablo Formation, a Miocene-age fanglomerate, and Quaternary alluvial deposits (Wagner et al. 1991).

Topography in the valley portion of Stanislaus County is typically flat to very gently sloping, with slopes commonly under five percent. Slopes in the eastern and western portions of the county range from rolling to mountainous. The eastern foothills are dissected into deep canyons by major rivers draining the west slope of the Sierra Nevada range, including the Stanislaus and Tuolumne Rivers. The canyons of the western foothills are less pronounced, as no major rivers flow through that area. Numerous smaller and larger creek drainages traverse Stanislaus County to reach the San Joaquin River, which drains north to the Sacramento-San Joaquin Delta (see Chapter 12.0, Hydrology and Water Quality).



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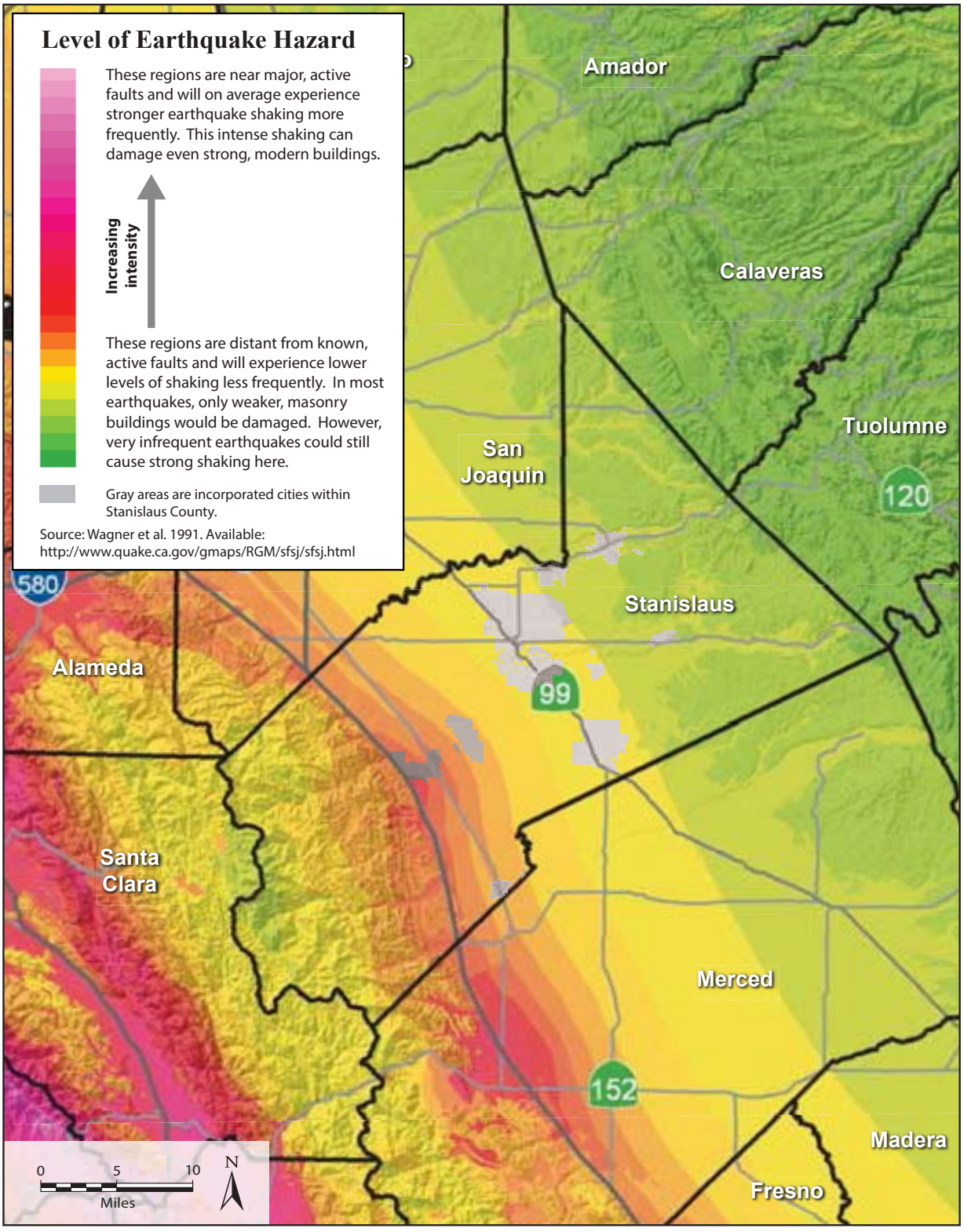
SOURCE: Stanislaus County General Plan EIR (ICF 2016)

BaseCamp Environmental

Figure 9-1
FAULT LOCATIONS



SOURCE: Stanislaus County General Plan EIR (ICF 2016)

Figure 9-2
SEISMIC SHAKING INTENSITY

Geological Conditions

Faulting and Fault Rupture

There are several faults and potential fault traces located within Stanislaus County, concentrated along its eastern and western margins. Faults are classified as to their potential for seismic activity on the basis of evidence of past activity. An "active" fault is defined as one along which displacement has been demonstrated to occur within the past 11,700 years. A fault is considered "potentially active" if there is evidence of movement within the past 700,000 years and further movement is considered likely. An "inactive fault" shows no evidence of movement within the last 1.6 million years, and renewal of activity is not considered likely.

The Ortigalita Fault, in the southwestern corner of the county, is considered an active fault. The San Joaquin Fault, located at the foot of the western foothills, is considered a potentially active fault. An unnamed fault on the Stanislaus-Santa Clara County line is considered inactive (Stanislaus County 2016a). In the extreme eastern parts of the county, the Bear Mountain and Melones Faults are found, although these faults are believed to have been inactive for the past 150 million years. No faults are known to exist in the Central Valley portion of the county (Stanislaus County OED 2010).

Fault rupture is a potential hazard that occurs within active earthquake fault zones. A fault zone has significant width, ranging from a few feet to several miles (Bryant and Hart 2007). The Alquist-Priolo Earthquake Fault Zoning Act, enacted in 1972 and subsequently amended, prohibits the location of most structures for human occupancy across the traces of active faults and to thereby mitigate the hazard of fault rupture. Under the Act, the State Geologist is required to delineate Earthquake Fault Zones along known active faults in California. Cities and counties affected by the zones must regulate certain development projects within the zones, withholding development permits for sites within the zones until geologic investigations demonstrate that the sites are not threatened by surface displacement from future faulting (Bryant and Hart 2007).

In Stanislaus County, an Earthquake Fault Zone has been delineated on the Mustang Peak and the Crevison Peak USGS quadrangle maps, in the southwestern corner of the county (California Geological Survey 2015). The Earthquake Fault Zones on both maps trace the Ortigalita Fault. The area in which the Earthquake Fault Zones are located is remote and undeveloped. No other Earthquake Fault Zones have been delineated in the county.

Ground Shaking

The strength of an earthquake can be described in two ways. The magnitude of an earthquake is a measure of the energy released. The intensity of an earthquake is based on observed physical effects. The Modified Mercalli Intensity Scale measures the intensity of physical effects associated with earthquakes (Table 9-1).

Since 1930, one earthquake epicenter of a magnitude greater than 4.0 on the Richter Scale has been recorded in Stanislaus County. In 1986, an earthquake of magnitude 3.7 occurred with an epicenter several miles west of Crows Landing (Stanislaus OES 2010). Numerous earthquakes occur each year along California's major faults outside the County, including the San Andreas, Calaveras, Hayward, and Nacimiento Faults. Ground shaking along these faults could produce damage in Stanislaus County that could reach varying intensities on the Modified Mercalli Intensity Scale. The eastern half of the county can be expected to have shaking of Modified Mercalli Intensity of VI or

VII, producing minor to moderate damage. The western half of the county can be expected to have shaking of an intensity of VII to VIII, which can cause considerable damage to ordinary structures. The area around the city of Newman may have shaking intensity of IX or X, which could result in major damage (Stanislaus County OES 2010).

TABLE 9-1
MODIFIED MERCALLI INTENSITY SCALE

Intensity	Shaking	Description
I	Not felt	Not felt except by a very few under especially favorable conditions.
II	Weak	Felt only by a few persons at rest, especially on upper floors of buildings. Delicately suspended objects may swing.
III	Weak	Felt quite noticeably by persons indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibrations similar to the passing of a truck. Duration estimated.
IV	Light	Felt indoors by many, outdoors by few during the day. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably.
V	Moderate	Felt by nearly everyone; many awakened. Some dishes, windows broken. Unstable objects overturned. Pendulum clocks may stop.
VI	Strong	Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight.
VII	Very strong	Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken.
VIII	Severe	Damage slight in specially designed structures; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned.
IX	Violent	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.
X	Extreme	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rails bent.
XI	Extreme	Few, if any (masonry) structures remain standing. Bridges destroyed. Rails bent greatly.
XII	Extreme	Damage total. Lines of sight and level are distorted. Objects thrown into the air.

Source: U.S. Geological Survey 1989 (http://earthquake.usgs.gov/learn/topics/mercalli.php.)

Liquefaction

Liquefaction is the process in which soils and sediments lose shear strength and fail during seismic ground shaking. The vibration caused by an earthquake can increase pore pressure in saturated materials, allowing the material to behave as a fluid. This temporary condition can result in severe settlement of foundations and slope failure.

The susceptibility of an area to liquefaction is determined largely by the depth to groundwater and the properties (e.g., texture and density) of the soil and sediment within and above the groundwater.

The sediments most susceptible to liquefaction are saturated, unconsolidated sand and silt soils (particularly Quaternary age units) with low plasticity within 50 feet of the ground surface (California Geological Survey 2008b).

The portion of Stanislaus County most susceptible to liquefaction is likely the western margin of the valley, because of the combination of young geologic units (Quaternary fan deposits and Dos Palos Alluvium) and potential for strong ground shaking. Where groundwater is shallow, liquefaction could occur. Other parts of the valley also have young geologic units and shallow groundwater conditions, but the ground shaking hazard is lower. The geologic units in the Coast Ranges and Sierra Nevada foothills are not as susceptible to liquefaction because they are older and more consolidated, or because they are igneous. In addition, shallow groundwater is not likely to be present in the steeper terrain.

Landslides and Slope Stability

The potential for landslides in Stanislaus County varies greatly. The greatest risk of landslides is in the steep Diablo Range in the western portion of the county (California Geological Survey and U.S. Geological Survey 2011). Although the California Geological Survey has not designated any part of Stanislaus County as a Zone of Required Investigation for landslide hazard (California Geological Survey 2007), two factors make slope instability (both seismically and non-seismically induced) a concern in this area: the steep topography and the potential for moderate ground shaking (California Geological Survey and U.S. Geological Survey 2011).

In addition, slope stability related to precipitation may also be a factor in the Diablo Range. This area has a history of landslides and is considered a risk area by the County because of the steep slopes and unstable geologic formations (Stanislaus County 2004:29; Stanislaus County 1994:5-4). Of the various County park lands, only Frank Raines Regional Park is located in this area. There is a moderate risk of landslides on the far eastern side of the county in the Sierra Nevada foothills (California Geological Survey and U.S. Geological Survey 2011). For the valley portion of the county, there is low to no risk of landslides (California Geological Survey and U.S. Geological Survey 2011).

Other Geological Hazards

Subsidence is the sinking of a large area of ground surface in which the material is displaced vertically downward, with little or no horizontal movement. The San Joaquin Valley and the Sacramento-San Joaquin Delta are areas that have experienced subsidence. The main cause of subsidence in valley areas is the withdrawal of groundwater from aquifers; in the Delta region, subsidence is largely due to oxidation of exposed organic soils. When groundwater withdrawn exceeds recharge, the aquifer layers may be permanently compressed and will not expand to their original thickness, resulting in permanent land subsidence at the ground surface (Stanislaus County 2016b). Stanislaus County is just north of the region of the San Joaquin Valley most severely affected by subsidence. Chapter 12.0, Hydrology and Water Quality, discusses groundwater conditions in more detail.

Volcanic hazards in California are limited to areas east of the Pacific Crest and the Lake County geothermal area. No volcanic hazards have been identified in Stanislaus County. Tsunamis are seismically-induced waves occurring in the ocean and affecting coastal areas. These hazards likewise are not a concern for the County (Alfors et al. 1973).

A seiche is a wave induced in a lake or similarly enclosed body, either from seismic activity, wind and atmospheric variation, or from an event such as a landslide. Stanislaus County contains reservoirs where seiches could occur. Some of them, such as Modesto Reservoir, Woodward Reservoir, and Turlock Lake, have recreational facilities on their shorelines.

Soils and Soil Conditions

Because of the large area under consideration, soils in Stanislaus County are best described at a landscape scale. The NRCS maps soils at a landscape scale by mapping soil associations. Soil associations are groupings of individual soils that occur together in the landscape and are typically named after the two or three dominant soil series. Soil associations cover broad areas that have a distinctive pattern of soils, topographic relief, and drainage (U.S. Department of Agriculture 2006?7?). Figure 9-1 shows the soil associations in Stanislaus County.

Soil issues of concern in the county include high water table, restricted permeability, and shrink-swell potential (USDA NRCS 2007), which can cause construction problems. For example, soils with a moderate to high shrink-swell potential, also known as expansive soils, expand and contract with changes in moisture content and therefore do not provide a suitable substrate for construction without modification. Larger scale maps showing the individual soil map units that comprise each association are often used for evaluating soil suitability on a site-specific scale (e.g., selecting a building site).

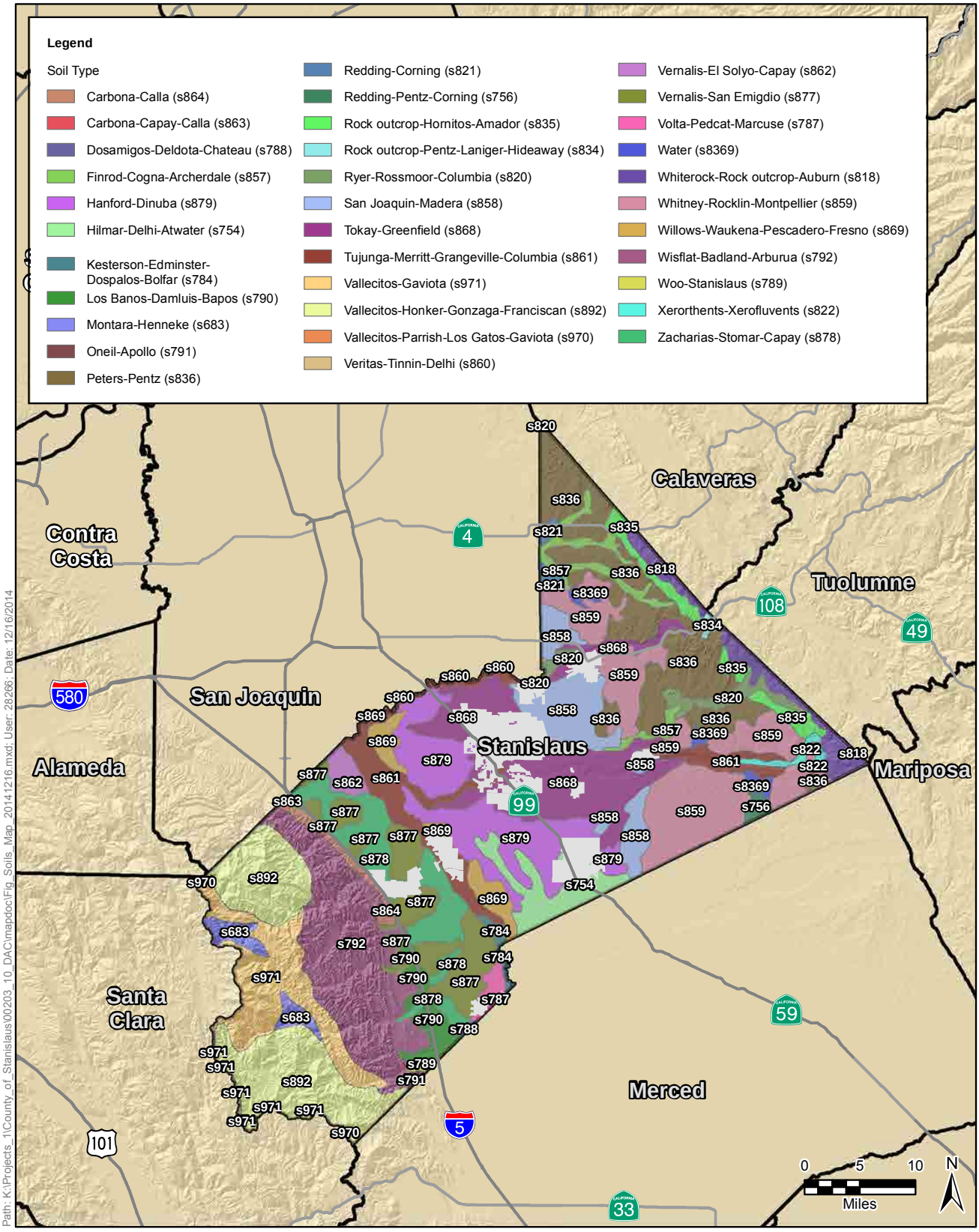
Soil Erosion

Soil erosion potential is a function of soil texture, steepness, rainfall and runoff and disturbance. Generalized soil erosion information (Alfors et al. 1973) indicates that erosion hazards are low throughout the flat and gently-sloping portions of the Program Area. Erosion potential is locally moderate to high in foothill and mountain areas, varying with soil texture and slope steepness.

Soils erosion is generally a localized concern within the Stanislaus County park system. In the Valley portions of the system, erosion concerns are localized to areas of high vehicle and foot traffic that are unpaved and programmed for improvement in the Master Plan. Examples would include the undeveloped riverfront access in the southern portion of Laird Regional Park, where unsupervised vehicle use that results in a proliferation of vehicle tracks, impacts to vegetation and soil exposure. This is, however, a floodplain area that is regularly inundated and re-shaped by high river flows as in the winter of 2016-2017.

Naturally-Occurring Asbestos

In some parts of California, naturally occurring asbestos may be found. Asbestos is a mineral fiber that occurs in rock and soil which has been used in a variety of construction materials. Asbestos fibers may be released into the air by the disturbance of asbestos-containing material. Exposure to asbestos fibers may lead to adverse health effects such as asbestosis, lung cancer and mesothelioma. Naturally occurring asbestos is found in areas with ultramafic rock – rock with an elevated magnesium and iron content. One of the most common of ultramafic rocks in California is serpentinite, commonly called serpentine, found in the Sierra Nevada foothills.



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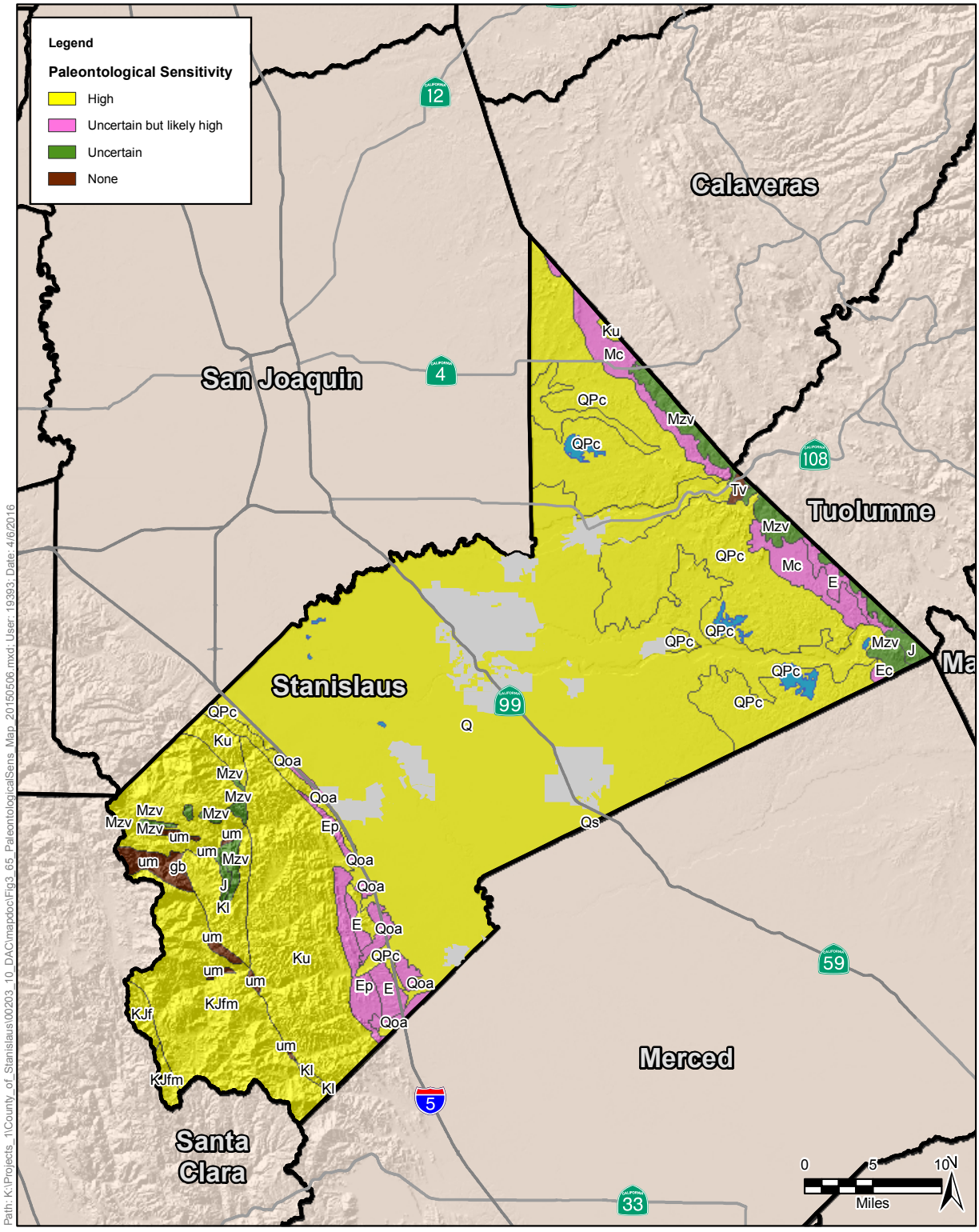
Source: STATSGO; ESRI USA Imagery (2010)

SOURCE: Stanislaus County General Plan EIR (ICF 2016)

Figure 9-3
SOIL ASSOCIATIONS



Source: California Geological Survey 2010

SOURCE: Stanislaus County General Plan EIR (ICF 2016)

A California Geological Survey study identified areas of ultramafic rock in California, where naturally occurring asbestos is likely to occur (Churchill and Hill 2000). Ultramafic rock areas have been identified in the Coast Range area of Stanislaus County and in the Sierra foothills, although the ultramafic rock units in the foothills are located well east of Stanislaus County in Calaveras, Tuolumne and Mariposa counties. Several small ultramafic rock units are located in the upper Del Puerto Creek watershed in western Stanislaus County. These units include areas within Frank Raines Regional Park and may include portions of the proposed 500-acre OHV expansion area.

Asbestos occurs naturally in ultramafic rock (which includes serpentine). When this material is disturbed in connection with construction, grading, quarrying, or surface mining operations, asbestos-containing dust can be generated. Exposure to asbestos can result in health ailments such as lung cancer, mesothelioma (cancer of the linings of the lungs and abdomen), and asbestosis (scarring of lung tissues that results in constricted breathing) (ARB 2002).

The California Air Resources Board (ARB) approved an Asbestos Airborne Toxic Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations. This ATCM requires road construction and maintenance activities, construction and grading operations, and quarrying and surface mining operations in areas where naturally-occurring asbestos is likely to be found to employ the best available dust mitigation measures. Existing OHV use of the park may be generating NOA-containing dust.

Mineral Resources

Mineral resources in Stanislaus County are primarily sand, gravel, and other construction material deposits in the alluvial portion of the San Joaquin Valley. Sand and gravel deposits have been identified along the Stanislaus River (DMG 1977). A more extensive mineral survey indicated the presence of significant concrete aggregate deposits in the northeastern tip of the county and along the Tuolumne River. Deposits of industrial minerals include kaolinitic clay and quartz-rich specialty sand near the communities of Cooperstown and La Grange, and diatomite and specialty sand in the Coast Ranges west of Newman. In the foothills, the geological environment is favorable for precious metal deposits such as gold and silver, but no such deposits have been identified (DMG 1993). Natural gas deposits have been identified throughout the Central Valley, but no natural gas fields are located in Stanislaus County (DOGGR 2001).

The mineral resource development potential of lands in the counties are classified by the State Geologist in accordance with the California Mineral Land Classification System. The classifications include:

MRZ-1 Areas of No Mineral Resource Significance

MRZ-2 Areas of Identified Mineral Resource Significance

MRZ-3 Areas of Undetermined Mineral Resource Significance

MRZ-4 Areas of Unknown Mineral Resource Significance

The County General Plan has designated several aggregate resource areas within the county. These include resource areas near the cities of Riverbank, Oakdale, and Waterford and the communities of Knights Ferry and Valley Springs (Stanislaus County 2016a). The aforementioned industrial

mineral deposits have been designated by the County General Plan. Figure 9-2 indicates the location of areas in Stanislaus County containing aggregate, which is used for construction.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Significance Thresholds

According to Appendix G of the CEQA Guidelines, a project may have a significant impact on the environment if it would:

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure (including liquefaction), or landslides.
- Result in substantial soil erosion or the loss of topsoil,
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse,
- Be located on expansive soil as defined in Table 18-1-B of the Uniform Building Code,
- Result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state,
- Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan, or
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

For mineral resources, Appendix G of the CEQA Guidelines states that a project may have a significant impact on the environment if it would:

- Result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state, or
- Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

Impact GEO-1: Faulting and Seismicity

Projects constructed as part of the Parks Master Plan would not be subject to hazards associated with surface rupture of known fault systems. No existing or planned parks or recreational facilities are located within areas identified as having active faults, which are mainly in the southwestern portion of the county.

Park and recreational facilities improvements would be exposed to potentially significant seismic shaking from faults within and outside Stanislaus County. The potential severity of shaking would be greater in the vicinity of active or potentially active faults with a record of seismic activity.

Seismic shaking could cause damage to improvements, but this would be of concern for buildings and other structures. Parks, dog parks, campgrounds, picnic areas, and fishing access points would not be significantly affected, as they contain few facilities that would experience damage or expose users to harm. Facilities of greater concern would be outdoor amphitheaters, playing field seating areas, and shade shelters, as these are facilities where people would congregate.

New facilities should be designed in accordance with applicable standards and building codes, which account for seismic activity and would avoid or reduce potential for substantial seismic damage. The mitigation measure below would require design review and approval of certain projects, reducing potential impacts to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures:

GEO-1: Preliminary Park improvements involving new disturbance or construction on steep slopes, substantial grading and modification of existing topography and/or structure for human occupancy or in and near areas of concentrated assembly shall be designed by qualified professionals in accordance with adopted County codes and standards and subject to the review and approval of the County Engineer or Building Official. Design shall be preceded by geotechnical or soils studies as provided by adopted codes and standards or as required by County officials.

Significance After Mitigation: Less than significant

Impact GEO-2: Other Geologic Hazards

Park improvements located in areas of potential geologic hazard may be subject to damage as a result of slope instability, liquefaction, and/or wet soils. These would include projects in more steeply-sloping areas, including river banks, alluvial terrace margins, hillsides and mountainsides requiring substantial grading for site preparation. Such projects could include various improvements at Frank Raines Regional Park, planned topographic modifications at Modesto Reservoir Regional Park, a proposed boat ramp and fishing dock at Laird Regional Park, motorized and non-motorized boat ramps at Riverdale and various improvements within the Tuolumne River Regional Park. Where construction would occur in areas of slope instability, existing conditions could be exacerbated by disturbance. In addition, facilities located in or on coarse, frequently saturated soils may be subject to liquefaction, settlement or subsidence hazards.

As discussed in GEO-1, proposed grading and building plans should be designed by qualified professional with input from civil, soils or geotechnical engineers as required. Mitigation Measure GEO-1 would ensure that such design work occurs, thereby reducing geologic hazards impacts to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures: Mitigation Measure GEO-1

Significance After Mitigation: Less than significant

Impact GEO-3: Soil Erosion

Potential water erosion impacts associated with park improvements in the Valley and other gently-sloping portions of Stanislaus County are expected to be less than significant because of the relatively flat slopes and minimal disturbance required to construct proposed facilities in these areas. Some improvements in locally steep areas, for example boat launch improvements at Laird Regional Park, river bank trails, or the non-motorized boat launch facility at Riverdale Park along the Tuolumne River, could involve localized soil erosion. These concerns can, however, be reduced to a less than significant by specific consideration of erosion control in construction plans, as required by Mitigation Measure GEO-2.

Park improvements or expansion that would affect sloping and mountainous lands may involve grading and OHV use, which would remove existing vegetation and increase potential soil erosion. This potential will vary with the soil texture, slope and degree of disturbance associated with the individual activity, but it could be locally significant.

Additional campsites, restrooms, water system and entrance and parking improvements at La Grange Regional Park would involve additional disturbance of existing soils and some potential for increased soil erosion. In light of the existing level of vegetation removal and soils disturbance at the park, these improvements are not expected to involve significant increases in soil erosion. Sediment generated by increased erosion if any would be contained on-site in existing sediment ponds.

Master Plan implementation would involve improvements to existing day use, camping, restroom and existing buildings, expansion of camping facilities and extension of potable water service to some of these facilities at Frank Raines Regional Park. An existing baseball field would be removed and converted to camping, and a new 50-100 person amphitheater would be constructed for educational and special events. These improvements would occur in existing disturbed areas and would not result in significant increases in soil erosion. Paving of existing entrance and parking facilities would involve some initial disturbance of these disturbed areas but reduction in erosion upon completion.

The Master Plan provides the opening of an additional 500-acre mountainous area to the northwest of existing OHV use areas that has not been subject to previous such use. Opening of this area will involve the construction of new OHV trails and exploitation of accessible terrain by OHV users, resulting in removal of vegetation and exposure of soils to erosion. OHV access and erosion concerns will be managed as they are in existing facilities; no significant erosion concerns or special problems are anticipated by staff. Nonetheless, the opening of this area will result in potentially significant erosion and sediment to the branch creek and Del Puerto Creek. A project-specific erosion control plan will be needed to reduce potential erosion effects to a less than significant level. Whether or not this will reduce potential impacts to a less than significant level is uncertain.

Individual construction projects that would disturb one acre of land or more would be required to comply with the provisions of the Construction General Permit, issued by the State Water Resources Control Board (SWRCB). The permit requirements include preparation of a Storm Water Pollution Prevention Plan (SWPPP) by a Qualified SWPPP Developer to address potential soil erosion and water quality issues. The SWPPP includes implementation of Best Management Practices to avoid or minimize adverse water quality impacts from erosion and sedimentation. Best Management Practices fall within the categories of Temporary Soil Stabilization, Temporary Sediment Control, Wind Erosion Control, Tracking Control, Non-Storm Water Management, and

Waste Management and Materials Pollution Control. Only Best Management Practices applicable to the individual project would become part of the SWPPP.

Wind erosion would not be a concern due to relatively small areas of disturbance associated with planned improvements. Implementation of Mitigation Measure AIR-1 would reduce the level of wind erosion that would occur, which would reduce potential impacts to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures: See Mitigation Measure AIR-1.

GEO-2: Construction plans and specifications for boat launch, access or other improvements in steeper areas in the Valley parks shall incorporate construction and post-construction erosion control provisions.

GEO-3: A detailed erosion control plan shall be prepared for the planned opening of 500 additional acres of OHV use. The plan shall consider the nature and erodibility of soils in the area and the options for permitting public OHV use while avoiding significant erosion and sedimentation of Del Puerto Creek.

Significance After Mitigation: Less than significant

Impact GEO-4: Geological Instability and Expansive Soils

Projects associated with the Parks Master Plan are not expected to significantly affect the local geology. Most projects would not involve significant effects on geologic resources in the widespread alluvial, volcanic or other geologic units of the Central Valley, in urban areas, or in other areas where substantial physical change has already occurred. Projects in foothill and mountain areas would likely not involve unique geologic resources. Proposed projects are not located in any designated mineral resource areas of Stanislaus County

Projects would be potentially subject to damage from expansive soils if they are located on such soils, especially those with a high clay content. Damage can be avoided by design which accounts for soil properties. Mitigation Measure GEO-1 above would require such work, thereby reducing impacts related to expansive soils to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures: See Mitigation Measure GEO-1

Significance After Mitigation: Less than significant

Impact GEO-5: Exposure to Naturally-Occurring Asbestos

Planned park improvements would not involve any known potential for the occurrence of Naturally-Occurring Asbestos (NOA) except at Frank Raines Regional Park, which is underlain by mapped units of ultramafic rock. No documentation is available as to the exact nature of these rocks or their asbestos content, if any. It is unclear as to whether existing NOA regulations would apply to existing or future operations of the park. Introduction of OHV use into the proposed 500-acre expansion area, including OHV trail construction and pioneering of new trails by OHV users, as well as existing use and park maintenance activities, may involve exposure of park employees and

OHV users to asbestos inhalation. Without further information, this exposure would be considered a potentially significant health risk and a potentially significant environmental effect.

Level of Significance: Potentially Significant

Mitigation Measures:

GEO-4: Prior to opening the upper 500 acres of Frank Raines for public OHV use, the Parks and Recreation Department shall conduct a geological investigation of the area for the presence of Naturally-Occurring Asbestos, its friability, its potential for dust generation and suspension in the air as a result of OHV use, and effective options for dust control that are appropriate to the setting and proposed use. The Department shall make a determination based on the evidence, which may need to include a health risk assessment, as to whether OHV operations in this area will present a considerable health risk to visitors and park employees with or without effective mitigation measures. The Department shall open the new terrain only if potential health risks are shown to be acceptable.

Significance After Mitigation: Uncertain, dependent on additional scientific work

Impact GEO-6: Access to Mineral Resources

As previously described, mineral resource deposits have been identified along the Stanislaus and Tuolumne Rivers and the far northeastern tip of Stanislaus County. The projects proposed as part of the Parks Master Plan would not be located in any of these designated areas. As such, these projects would not interfere with existing access to mineral deposits. The Parks Master Plan would have no impact related to mineral resources.

Level of Significance: No impact

Mitigation Measures: None required

Impact GEO-7: Suitability of Soils for Wastewater Disposal Systems

The Parks Master Plan proposes the installation of new restrooms at several County parks. Some would be located in neighborhood parks that have access to wastewater collection systems. However, many would be located in areas where there is no wastewater collection system. In particular, new restrooms are proposed at four of the five regional parks (Laird being the only regional park where no new restrooms are proposed) and at Kiwanis Park. Some of these restrooms would be combined with a shower facility. Wastewater generated by these facilities would need to be collected by individual collection systems. Septic systems require soils that are suitable for the use of such systems; otherwise, environmental contamination could occur.

At La Grange and Modesto Reservoir Regional Parks, the use of vaulted restrooms is proposed. Vaulted restrooms contain tanks where wastewater is collected. These tanks are emptied by collection trucks that transport the collected wastewater elsewhere for treatment and disposal. Because vaulted restrooms do not require a leach field as do typical septic systems, the suitability of soils is not an issue. However, the type of restrooms proposed for other parks do not specify the method of wastewater disposal. It is possible that more conventional septic systems may be used. In that circumstance, soil suitability would be a significant issue.

Mitigation presented below would require an analysis of the suitability of soils for the use of septic systems prior to their installation, if they are proposed. If the soils are not suitable, then alternative wastewater systems would be used. With implementation of this measure, impacts related to soil suitability for wastewater disposal would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures:

GEO-5: If a project proposes the use of a septic system that includes a leach field, then a soil suitability analysis shall be conducted by a qualified engineer and permitted by the County Environmental Resources Department prior to the proposed installation of the septic system. If the soil is determined to be unsuitable for a leach field, then an alternative method of wastewater disposal shall be used, such as a vaulted restroom.

Significance After Mitigation: Less than significant

10.0 GREENHOUSE GAS EMISSIONS

ENVIRONMENTAL SETTING

Global Climate Change and Greenhouse Gases

Global climate change is a shift in the "average weather," or climate, of the Earth as a whole. Recent scientific observations and studies indicate that global climate change, linked to an increase in the average global temperature that has been observed, is now occurring. There is a general consensus among scientists that the primary cause of this change is human activities that generate emissions of greenhouse gases (GHGs) (CAPCOA 2009). GHGs are gases that trap heat in the earth's atmosphere. They include carbon dioxide (CO_2), the most abundant GHG, as well as methane, nitrous oxide, and other, less abundant gases. Although each GHG has heat-trapping properties, they vary in the amount of heat they can trap. Measurements of GHG emissions are commonly expressed in CO_2 equivalent (CO_2e), in which emissions of all other GHGs are converted to equivalent CO_2 emissions. Total worldwide emissions of GHGs in 2010 were estimated at nearly 46 billion metric tons CO_2e (EPA 2014). U.S. emissions in 2013 were estimated at 6.673 billion metric tons CO_2e (EPA 2015a).

Unlike the criteria air pollutants described in Chapter 6.0, Air Quality, GHGs have no "attainment" standards established by either the federal or state governments. Nevertheless, the EPA has found that GHG emissions endanger both the public health and public welfare under Section 202(a) of the Clean Air Act, due to their impacts associated with climate change (EPA 2009).

Concerns related to global climate change include the direct consequences of a warmer climate, but also include indirect effects such as reduced air quality, reduced snowpack, higher-intensity storms, and rising sea levels. All of these changes have implications for the human environment, as well as existing ecosystems and the species that depend on them. The United Nations Intergovernmental Panel on Climate Change (IPCC) has concluded that stabilization of greenhouse gases at a concentration of 400-450 parts per million (ppm) CO_2e is required to keep mean global warming below 2° Celsius, which is considered necessary to avoid dangerous impacts of climate change (IPCC 2001). The 2011 GHG concentration in the atmosphere was estimated at 430 ppm (IPCC 2015).

In 2013, GHG emissions in California totaled 459.3 million metric tons CO_2e – a decrease from the 2004 peak of 495.3 million metric tons CO2e (ARB 2015a). The major source of greenhouse gases in California was transportation, accounting for 37% of total 2013 GHG emissions. Electric power generation and industrial activity each accounted for 20% of total emissions, commercial and residential accounted for 9%, agriculture accounted for 8%, and the remaining 6% were from other sources (ARB 2015b).

The State of California's Climate Action Team, in its 2010 Biennial Report, discussed the potential impacts of climate change on California's environment. These potential impacts include (Climate Action Team, 2010):

- With some variation, the general trend would be for less precipitation throughout California to the end of the 21st century. Higher temperatures would increase evaporative water loss, and thus produce overall drier conditions.

- The snowpack in the Sierra Nevada, a major source of California's water, would melt earlier. The snowpack would produce less overall runoff, and there would be an increasing trend in high flows and floods during the winter months.

- Sea levels would rise, subjecting many coastal areas to inundation, as well as areas near bodies of water affected by tides.

- Some crops (e.g., cherries, cotton, maize, wheat, sunflower) would experience a significant decrease in yields. Other crops (e.g., almonds, tomatoes, rice, alfalfa) would experience no change in yields or even an increase.

- The number and intensity of wildfires is expected to increase, thereby increasing risk to lives and property and contributing to decreased air quality.

- Timber production is expected to decline on a statewide basis, but may increase in some locations and for some tree species.

- While water deliveries to urban users would generally be maintained, water for agricultural uses and environmental flows may be reduced. Reservoir carryover storage (the amount of water in reservoirs at the end of the dry season) would decline. In response, groundwater pumping in the Sacramento Valley would increase.

- Increases in mean temperature and increased frequency, length and intensity of heat waves would occur, which would negatively affect public health.

- Increases in temperature, combined with the uneven distribution of new residential development across the state, will generate increased electricity demand for cooling, particularly in the Central Valley. However, hydroelectric power generation is expected to decline due to changes in hydrology.

- Air pollution in coming decades is expected to worsen, with an increased potential for high ozone and high particulate matter days. This would also adversely affect public health.

The Safety Element of the Stanislaus County General Plan identified the following effects that would be experienced in the county as a result of climate change (Stanislaus County 2016a):

- Increased health risks for vulnerable populations during extended heat waves.

- Changes in insect vector populations due to warmer temperatures, and associated increase in human risk.

- Increased drought potential due to less reliable snowfall.

- Increased flood risk due to the expected increase in winter rains in relation to winter snow at higher elevations.

- Reduced carryover storage in multi-purpose reservoirs as a result of the need to maintain a larger flood control capacity later into the year (see also Bureau of Reclamation Climate Impact Assessment paragraph above).

- Extended wildfire season.

In 2014, the Bureau of Reclamation released a Climate Impact Assessment for the Sacramento and San Joaquin Basins. Among the potential impacts identified in the assessment are a projected earlier seasonal runoff that would lead to a decrease in end-of-September reservoir storage of 2%, and projected lower reservoir levels that would reduce the surface area of reservoirs available for recreation by 17% (U.S. Bureau of Reclamation 2014).

Regulatory Setting

Global climate change is a subject of longstanding international dialogue and action, dating from the 1988 establishment of the IPCC to further the understanding of human-induced climate change, its potential impacts, and options for adaptation and mitigation (IPCC 2004). Action on the international level has been limited, as not all countries have been able to agree on a global strategy. In 2015, the Paris Agreement was reached among 196 countries, with each country pledging to take actions to decrease GHG emissions to reach the overall goal of limiting the increase in global temperature to no more than 2° Celsius. Although the United States was a signatory to the Paris Agreement, the U.S. Senate did not ratify the agreement, and the current presidential administration has announced recently its intention to withdraw from it.

Although the federal government does not have a comprehensive GHG strategy, it has adopted some GHG emission reduction actions. In coordination with the U.S. Department of Transportation, EPA issued GHG emission and fuel economy standards for passenger vehicles and trucks that are intended to cut 6 billion metric tons of GHG emissions over the lifetimes of vehicles sold in model years 2012-2025. In 2010, the EPA set GHG emissions thresholds to define when permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities. In 2013, the EPA proposed standards to cut carbon emissions from new power plants. These standards were adopted in 2015 (EPA 2015b). Also in 2015, EPA adopted the Clean Power Plan; however, implementation of the Clean Power Plan has been stayed by the U.S. Supreme Court, and an Executive Order issued on March 28, 2017 required reconsideration of the Clean Power Plan.

California

California has addressed climate change on its own initiative as early as 1988, when the California Energy Commission was designated as the lead agency for climate change issues. However, the most significant state activities have occurred from 2005 to the present, when various executive orders and State legislation established the current framework for dealing with climate change. Several of these are described below:

Executive Orders S-3-05 and B-30-15. Executive Order S-3-05, signed by Governor Schwarzenegger in 2005, established GHG emission reduction targets for California. Specifically, GHG emissions are to be reduced to the year 2000 level by 2010, the year 1990 level by 2020, and to 80% below the 1990 level by 2050. The desired 2050 GHG emission reduction is consistent with the IPCC objectives for stabilizing global climate change. The 2020 reduction goal set forth by S-3-05 was codified by Assembly Bill (AB) 32, which is described below.

On April 29, 2015, Governor Brown signed Executive Order B-30-15, which advances the goals of Executive Order S-3-05 by establishing a GHG reduction target of 40% below 1990 levels by

2030. The 2030 reduction goal established by B-30-15 was recently codified by Senate Bill (SB) 32, which also is described below. To date, the 2050 reduction goal has not been made State law.

AB 32. AB 32, the Global Warming Solutions Act of 2006, is State legislation that sets goals of reducing GHG emissions to year 2000 levels by 2010 and to year 1990 levels by 2020. These specific goals are directly related to the Governor's overall objectives established in Executive Order S-3-05. The State's initial planning efforts are oriented toward meeting the legislated 2010 and 2020 goals, while placing the State on a trajectory that will facilitate eventual achievement of the 2050 goal set forth in Executive Order S-3-05. The ARB has primary responsibility for AB 32 implementation.

ARB adopted a Climate Change Scoping Plan (Scoping Plan) in 2008 with the purpose of meeting the AB 32 targets. The Scoping Plan details the various GHG reduction initiatives that will be undertaken by the State or passed down to local government, and it quantifies the GHG emission reductions associated with each of the initiatives. The 2008 Scoping Plan proposed to reduce GHG emissions from the State's projected 2020 "business-as-usual" emissions by approximately 29%. Under the Scoping Plan, nearly 85% of the GHG reductions would be achieved under a "cap-and-trade" program and "complementary measures," including expansion of energy efficiency programs, increase in the use of renewable energy sources, and low-carbon fuel standards, among others. The remaining 15% would include measures applicable to GHG sources not covered by the cap-and-trade program (ARB 2008).

The cap-and-trade program is the centerpiece of the GHG reduction program set forth in the Scoping Plan. In general, the program sets a "cap" on the total GHG emissions that would be allowed in California, which gradually decreases over time. Allowances for GHG emissions are sold at auction to industrial activities and utilities that emit large quantities of GHGs, which in turn can sell allowances that are unused to other activities that need more allowances (the "trade" component). The cap-and-trade program, originally set to expire after 2020, was recently extended by the State Legislature to 2030, as part of a strategy to meet GHG reduction targets set by SB 32, described below.

In May 2014, the ARB approved the First Update to the Scoping Plan. The 2014 Update lays the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to the 2050 target set forth in Executive Order S-3-05. It recommends actions in nine sectors: energy, transportation, agriculture, water, waste management, natural and working lands, short-lived climate pollutants, green buildings, and the cap-and-trade program (ARB 2014).

SB 32. In 2016, the State Legislature passed and Governor Brown signed SB 32. SB 32 extends the GHG reduction goals of AB 32 by requiring statewide GHG emission levels to be 40% below 1990 levels by 2030, in accordance with the target originally established by Executive Order B-30-15.

ARB has recently released an updated Scoping Plan for public review that sets forth strategies for achieving the SB 32 target. The draft Scoping Plan proposes to continue many of the programs that were part of the previous Scoping Plans, including the cap-and-trade program, low-carbon fuel standards, renewable energy, and methane reduction strategies. It also addresses for the first time GHG emissions from the natural and working lands of California, including the agriculture and forestry sectors (ARB 2017). The public comment period on the draft Scoping Plan ended on April 10, 2017. As previously noted, the cap-and-trade program has been extended to 2030.

Renewables Portfolio Standard. Although not directly connected with other state GHG reduction laws and regulations, California's Renewables Portfolio Standard includes GHG reduction as one of

its goals. Established originally in 2002, it was modified in 2006 and 2011. Under the 2011 modifications, all electricity retailers in the state must generate 20% of electricity they sell from renewables by the end of 2013, 25% by the end of 2016, and 33% by the end of 2020. In 2015, SB 350 was signed into law, which increases the electricity generation requirement from renewable sources to 50% by 2030.

Regional and Local Agencies

SJVAPCD. In August 2008, the SJVAPCD adopted its Climate Change Action Plan. The goals of the Climate Change Action Plan are, among others, to establish processes for assessing the significance of project-specific GHG impacts for projects permitted by the SJVAPCD, and to assist local land use agencies, developers and the public by identifying and quantifying GHG emission reduction measures for development projects (SJVAPCD 2008).

In its 2009 Final Staff Report on addressing GHG emission impacts under CEQA, the SJVAPCD adopted an approach to determine the significance of project-specific GHG emissions. This approach relies on a project implementing Best Performance Standards, which would lead to a determination of the project having a less than cumulatively significant impact. For projects not implementing Best Performance Standards, or for any projects requiring an EIR, demonstration of a 29% reduction in GHG emissions from business-as-usual conditions is required to determine that a project would have a less than cumulatively significant impact. The 29% reduction standard was determined by the SJVAPCD to be consistent with the emission reduction targets established in the state's Climate Change Scoping Plan (SJVAPCD 2009). These criteria were incorporated in SJVAPCD's GAMAQI, which was recently updated (SJVAPCD 2015b).

Stanislaus County. Stanislaus County currently does not have a GHG emission reduction plan, alternatively known as a Climate Action Plan. However, the Safety Element of the County General Plan contains a section on climate adaptation. This section discusses the potential impacts climate change would have on County communities and facilities. Essential facilities and utilities, disadvantaged unincorporated communities, and industrial or commercial businesses were identified as particularly vulnerable to adverse climate change impacts. Safety Element policies and implementation measures relating to efforts to improve flood control and to reduce risks for future development, and efforts to improve the county's standard of living, comprise the County's adaptation strategy, along with measures in the Multi-Jurisdictional Hazard Mitigation Plan (MJHMP), which is discussed in Chapter 11.0, Hazards and Hazardous Materials.

Of the incorporated cities within Stanislaus County, Hughson and Oakdale have adopted Climate Action Plans to reduce GHG emissions. Patterson is working on a Climate Action Plan, and it has adopted policies and implementation measures in its General Plan related to GHGs. Turlock and Riverbank have not adopted Climate Action Plans, but they have adopted GHG policies and implementation measures in their General Plans. All other cities in the County have adopted neither a Climate Action Plan nor policies in their General Plans explicitly addressing GHGs.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Significance Thresholds

According to Appendix G of the CEQA Guidelines, a project may have a significant impact on the environment if it would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or

- Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

This PEIR conducts its GHG analysis in accordance with CEQA Guidelines §15064.4, which states that a lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate, or estimate the amount of greenhouse gas emissions resulting from a project. CEQA Guidelines §15064.4(b) states that a Lead Agency should consider the following factors, among others, when assessing the significance of impacts from GHG emissions on the environment:

- The extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting.

- Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.

- The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

Impact GHG-1: Construction GHG Emissions

GHG emissions would result directly and indirectly from the construction of facilities and improvements described in the Parks Master Plan. Potential sources would include emissions from construction worker travel and combustion from the operation of heavy and light construction equipment where such equipment is required. Specific GHG emissions associated with construction vehicles and equipment include carbon dioxide and methane. Other GHGs are not generally associated with fossil fuel combustion during construction projects (Power Engineers 2011).

Indirect GHG emissions would result from use of commercial energy during the construction process and from resource extraction and manufacturing of construction materials. However, the latter sources would require a "lifecycle analysis," which would involve identification of all inputs and data to quantify emissions, neither of which is readily available. Also, there is no agreement on methodological approaches to a lifecycle analysis for most sectors (CAPCOA 2010). Therefore, this analysis will be limited to direct source emissions.

As noted in Chapter 6.0, Air Quality, potential emissions may vary based on the scope of the individual project, from incidental or negligible for small improvements to more for larger projects involving more extensive construction efforts or grading. No significance thresholds for construction GHG emissions have been established by the County or by SJVAPCD. However, these emissions would be limited to the period of individual project construction, and would cease after construction work is completed.

It should be noted that emissions from construction activities account for a small portion of total GHG emissions. In 2013, GHG emissions in California generated by construction activities were 0.61 million metric tons CO_2e; total GHG emissions in California in 2013 were 459.3 million metric tons CO_2e (ARB 2015c). Moreover, GHG emissions from fuel combustion by construction equipment would likely be reduced by actions such as the Low Carbon Fuel Standard, federal fuel

economy standards, and emission standards for diesel engines. Any electricity consumption by construction activities would likewise generate fewer indirect GHG emissions due to implementation of the Renewables Portfolio Standard, which would lead to more electrical generation from renewable sources. For these reasons, construction GHG emissions are expected to have impacts that are less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact GHG-2: Operational GHG Emissions

The County's existing park facilities generally do not generate any substantial GHG emissions in their operations, other than vehicle trips generated by visitors to the parks. Several of the Scoping Plan's provisions, notably more stringent vehicle emission standards, low-carbon fuels, and increased fuel efficiency requirements, would incrementally reduce GHG emissions from this source over time. With the exception of expanded entertainment venues at Woodward Regional Park, proposed park improvements would not result in any quantifiable or substantial increase in vehicle trips other than would be anticipated over time with projected population growth in the County. Planned improvement projects may result in some incremental but less than significant increases in energy use; electricity consumed by project operations would increasingly come from renewable energy sources, as required by the Renewables Portfolio Standard. GHG impacts from operations associated are considered less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact GHG-3: Consistency with Applicable Plans and Policies

As noted in the discussion under Impact GHG-2, operational GHG emissions from projects are not considered significant; increases associated with planned improvements are expected to be minor overall, and programs designed to reduce statewide GHG emissions will increasingly take effect. Plans for vegetation restoration would have some small effect of sequestering GHGs, although the amount of sequestration is not known. The Parks Master Plan would be consistent with State plans for reducing GHG emissions. Impacts on applicable GHG plans and policies would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

11.0 HAZARDS AND HAZARDOUS MATERIALS

ENVIRONMENTAL SETTING

Hazardous Material Sites

Information on hazardous material sites within the County is available from the EnviroStor database (http://www.envirostor.dtsc.ca.gov/), maintained by the California Department of Toxic Substances Control (DTSC), and from the GeoTracker database (http://geotracker.waterboards.ca.gov/), maintained by the SWRCB. A comprehensive search for records of hazardous materials sites was not conducted. A review of the Geotracker and Envirostor databases indicated that most active hazardous material sites are concentrated in urban areas, particularly in and around the cities of Modesto and Turlock. Sites in rural areas are fewer and more scattered in location. Many of these sites are classified as closed, with no further action to be taken.

Regulations of hazardous materials at the federal level primarily is under the Resource Conservation and Recovery Act (RCRA), commonly referred to as Superfund, with amendments by the Superfund Amendments and Reauthorization Act (SARA). RCRA and SARA create a federal framework for the generation, transport, storage, treatment and disposal of hazardous wastes. The U.S. Department of Transportation sets regulations for the transport of hazardous materials. According to the EnviroStor database, three sites have been identified as Superfund sites: groundwater contamination behind Halford's Cleaners on McHenry Avenue in Modesto, the Riverbank Army Ammunition Depot site, and the Valley Wood Preserving site on Golden State Boulevard southeast of Turlock. None of the existing or planned park facilities are located near these sites.

Several state agencies regulate the transportation and use of hazardous materials, including the California Environmental Protection Agency (CalEPA) and the Office of Emergency Services. The California Highway Patrol and California Department of Transportation (Caltrans) enforce regulations specifically related to the transport of hazardous materials. Within CalEPA, the DTSC has primary authority to enforce hazardous materials regulations. EnviroStor indicates that there are several "state response" sites throughout the County. The former Crow's Landing airfield is designated as a state response site, and another is located at the Keyes Road/SR 99 interchange. Two are located in the vicinity of Bellenita Park, but none of the other existing or planned park facilities are located near state response facilities. Envirostor also identifies "Voluntary Cleanup" sites, where owners are remediating hazardous material contamination under state supervision, and "School Cleanup" sites. None of these mapped sites are located near existing or planned park facilities.

The Geotracker site identifies leaking underground storage tank (LUST) cleanup sites, and other Cleanup Program sites, which are numerous. Military Cleanup Sites are located at the former Crow's Landing airfield. In addition, Geotracker identifies permitted, but not leaking, storage tanks, which are also numerous. The identified LUST and Cleanup Program sites are located primarily in developed commercial areas. None appear to be located in the immediate vicinity of existing or planned park facilities.

On the local level, the Stanislaus County Environmental Resources Department was approved by the State as a Certified Unified Program Agency (CUPA). A CUPA administers the Hazardous Material Business Plan, California Accidental Release Prevention, Aboveground Petroleum Storage Act, Hazardous Waste Generator, Hazardous Waste Onsite Treatment and Underground Storage Tank programs to minimize potential risks to public health and safety. A Hazardous Material Business Plan is required for all activities that handle hazardous materials in quantities equal to or greater than 55 gallons of a liquid. The requirements of the plan include an inventory of hazardous materials, an emergency plan addressing the release of hazardous materials, and a training program for employees.

Parks and Recreation employees are properly trained and responsible for cleanup of minor hazardous materials concerns in the parks. Larger spills or contamination are reported to and handled by the Department of Environmental Resources.

Wildfire Hazards

Four factors contribute to wildland fires: vegetation, climate, topography, and people. Wildland fire hazards generally are limited to the foothills on the eastern and western sides of the County. Chaparral, grasslands, and other wild plant life provide the major sources of fuels. More remote areas are vulnerable to damage from wildfires, particularly in the dry summer and early fall when vegetation is at its driest. Response times to fires in these areas tend to be slower due to access restrictions and distance from fire stations. In rural agricultural and urban areas, the risk of wildlife is relatively low.

The California Department of Forestry and Fire Protection (Cal Fire) indicates that eastern and western Stanislaus County is part of a State Responsibility Area (SRA) where Cal Fire is primarily responsible for fire protection. Figure 11-1 shows wildfire hazard severity zones as designated by Cal Fire. The eastern Stanislaus County portion of the SRA is in a Moderate Fire Hazard Severity Zone. The Fire Hazard Severity Zones in the western Stanislaus County portion of the SRA vary from Moderate to Very High (Stanislaus County 2016a). More information is available at the website http://frap.fire.ca.gov/. These designations are consistent with information contained in the County's Multi-Jurisdictional Hazard Mitigation Plan (MJHMP), which is described in more detail below. The MJHMP indicates that wildfires have occurred in both areas with Fire Hazard Severity Zone designations, with scattered fires in the eastern foothills and more widespread fires in the Coast Range (Stanislaus County OES 2010).

Visitor use of the County's regional parks involves fire hazards; fire risk are managed by the Parks and Recreation Department rules that prohibit all fires in undeveloped areas and require fire containment in campground areas. No large fires, such as bonfires, are allowed in the park system. OHV use in the parks requires approved spark arrestors. In most neighborhood parks, fire risk is relatively low, and the use of barbeques is allowed.

Airport Hazards

Stanislaus County has two public use airports: the Modesto City-County Airport and the Oakdale Municipal Airport. Also, the County has the former Crows Landing Naval Auxiliary Landing Field, currently not in use but proposed for future general aviation activities. In 2016, the County adopted an updated Airport Land Use Compatibility Plan (ALUCP). The ALUCP establishes a process by

which land uses near public use airports are determined to be compatible with airport operations. As part of this process, the ALUCP has identified safety zones surrounding the airports, along with proposed restrictions on development within each safety zone. The most restrictive development areas are within the approach/departure zones for the airport. The ALUCP currently applies to the Modesto and Oakdale airports; compatibility maps and development criteria for the Crows Landing facility is forthcoming as of the time this EIR is being prepared. Mono and Oregon Drive Parks are located immediately northwest of Modesto Airport, and portions of the Tuolumne River Regional Park are located immediately south of the runway. There are no County park facilities located in the vicinity of Oakdale Airport or Crow's Landing airfield.

Stanislaus County has an Airport Land Use Commission (ALUC), which reviews land use proposals within the approach patterns and areas of review for public airports (but no airstrips). The ALUC bases its determinations on whether or not proposed development meets compatibility criteria set forth in the ALUCP.

The Federal Aviation Administration (FAA) regulates airport operations, airspace use and aspects of land use which affect aviation, in particular noise and safety influences. Cities, counties and local Airport Land Use Commissions have limited jurisdiction over land use in the vicinity of airports, in particular over construction of structures that may interfere with defined aircraft safety zones. Federal and local regulations are generally applicable within approximately two miles of airports.

Stanislaus County Code Chapter 17.12 establishes airport zone surfaces and height limitations for airports, including the Modesto and Oakdale airports. Except as otherwise provided in this chapter of the County Code, no structure shall be erected, altered, or be maintained in the airport zone to a height in excess of the approach surface, transitional surfaces, horizontal surface and conical surface as they apply to each airport.

Private airstrips are scattered throughout the county. Many of these airstrips are use purely for agricultural purposes (Stanislaus County 2016a). Location of airstrips is governed by the County Zoning Ordinance and, in some cases, the State. The County has an adopted policy regarding the siting of airstrips that requires approach patterns to be free from development (Stanislaus County 2016a).

Hazard Mitigation Plans

In 2010, Stanislaus County updated its MJHMP, with the participation of the County's incorporated cities and several special districts. The MJHMP was prepared in compliance with the federal Disaster Mitigation Act of 2000. It is a countywide plan that identifies risks posed by disasters and ways to minimize damage from these disasters. The MJHMP is a comprehensive resource document that serves many purposes: enhancing public awareness and understanding, creating a decision tool for management, promoting compliance with State and federal program requirements, enhancing local policies for hazard mitigation capability, and providing inter-jurisdictional cooperation. The basic elements in the MJHMP include a risk assessment, a vulnerability analysis that identifies vulnerable assets (e.g., buildings, properties, critical infrastructure), and a mitigation plan/strategy to reduce potential losses identified in the vulnerability analysis.

The MJHMP identified five hazards in its risk assessment that could lead to vulnerability of key assets in Stanislaus County: earthquakes, landslides, dam failure, floods, and wildfires. Maps were prepared that identified areas of high risk associated with each of these hazards. Key assets for which vulnerabilities were assessed include public buildings, infrastructure, critical facilities (i.e.,

emergency services), structures that house the elderly and disabled, and transportation systems. Potential wildfire hazards are discussed above. Chapter 9.0, Geology, Soils, and Mineral Resources, discusses earthquake and landslide hazards, and Chapter 12.0, Hydrology and Water Quality, discusses hazards associated with flooding and dam failure.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Significance Thresholds

According to Appendix G of the CEQA Guidelines, a project may have a significant impact on the environment if it would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment,
- Emit hazardous emissions or handle hazardous or acutely hazardous materials within one-quarter mile of an existing or proposed school,
- Be located on a site included on a list of hazardous material sites compiled pursuant to Government Code §65962.5, and as a result create a significant hazard to the public or the environment,
- For a project located within an airport land use plan or within two miles of a public or public airport if no plan has been adopted, result in a safety hazard for people residing or working in the project area,
- For a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area,
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, or
- Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

Impact HAZ-1: Hazardous Materials

Construction and ongoing maintenance of park and recreational facilities do, and would continue to involve the use of limited amounts of potentially hazardous materials. Construction and maintenance vehicles transport and use fuels in ordinary quantities. Other substances are consumer products which are stored in approved containers, and used in generally small quantities, and in accordance with the manufacturer's recommendations and/or applicable regulations. The project would not involve a substantial increase in the routine use of hazardous materials, and this activity would involve a less than significant effect on the environment.

Turf and landscape maintenance at parks typically require the use of herbicides, pesticides, and fertilizers. Improper application of these substances could have adverse impacts related to soil and water contamination. These concerns would be more acute at parks adjacent to rivers and lakes, including Laird, Woodward Reservoir and Modesto Reservoir Regional Parks, Tuolumne River Regional Park and Riverdale Park. The mitigation measures presented below would regulate the use of these substances, thereby reducing impacts on soil and water to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures:

HAZ-1: New and expanded landscaping at County parks shall involve the minimum use of herbicides, pesticides, and fertilizers required for landscape maintenance. All new proposed developments and/or landscaped areas adjacent to surface waters shall include a site-specific park management plan. The plan shall include discussions of the following:

- Acceptable plant materials
- Acceptable fertilizers, soil amendments, and application methods
- Water conservation and irrigation practices
- Storm water disposal practices
- Use of and application methods for pesticides, herbicides, fungicides, and insecticides
- Water quality monitoring
- Chemical and hazardous materials storage
- Employee training program
- Spill prevention control programs

A list of fertilizers and pesticides proposed for use in the management plans shall be submitted to the Agriculture Commissioner for review and comment. The description shall include the types of compounds to be used, the amounts to be applied, and form of application.

The effectiveness of these management plans shall be checked through periodic monitoring of nutrients and suspended solids in nearby surface and underground water sources. Sampling shall begin prior to project construction to provide a baseline for water quality data and shall continue for a period of time to be decided by the appropriate regulatory bodies to ensure that the project is in compliance with Regional Water Quality Control Board water quality standards.

HAZ-2: The use of pesticides, herbicides, fungicides, or insecticides that are included on official State or federal lists of restricted materials shall require issuance of a Restrictive Materials Permit, issues by the County Agricultural Commissioner. All materials on this list will be subject to special use restrictions as a condition of

permit issuance to ensure against significant health risks. Non-selective herbicides that affect all plants in the contact area will be limited to spot spraying as needed to kill only target vegetation and to reduce the use of chemicals.

Impact HAZ-2: Wildfire Hazards

According to information from Cal Fire depicted in Figure 11-1, the La Grange Regional Park, Kiwanis Park, and Joe Domecq Wilderness Area are within the Moderate Fire Hazard Severity Zone designated in eastern Stanislaus County. Modesto Reservoir and Woodward Reservoir Regional Parks are on the border of the Moderate Fire Hazard Severity Zone. Frank Raines Regional Park, in western Stanislaus County, is in a High Fire Hazard Severity Zone. New or upgraded facilities at these parks would be subject to a potentially high wildfire hazard as they are today.

Neighborhood and community parks, located in valley communities, are not subject to a substantial wildfire hazard, as are most fishing access points, except for the J-59 access point near La Grange. Adoption and implementation of the Master Plan would not result in significant increases in fire risk or exposure at these locations.

Ongoing and expanded use of the regional park facilities, which are located in areas with elevated fire hazards, would continue to present a fire ignition risk from an assortment of sources, including motor vehicle operation, smoking and camping. The County would continue its existing regulation and enforcement program, which would help moderate and prevent a significant increase in these risks.

Cal Fire would be responsible for providing fire protection service for parks in the Fire Hazard Severity Zones, with assistance from local fire districts (see Chapter 16.0, Public Services). Although parks under threat of wildfire would be evacuated, users of parks in the Fire Hazard Severity Zone would be exposed to a potential safety hazard from wildfires. Mitigation described would reduce wildfire risk to park users and employees, thereby reducing impacts to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures:

HAZ-3: For new parks and recreational facilities located within a Moderate Fire Hazard Severity Zone or higher, as designated by the California Department of Forestry and Fire Protection, a wildfire management plan shall be prepared. The plan should address fuel reduction management, setbacks from structures, locations of fire suppression equipment and water sources, provisions for fire breaks and trails, provisions for maintenance, closure or access limitation during times of high fire danger, evacuation plans, and road and access standards. Occupied buildings in these areas, such as shops and entrance stations, should include pressurized water systems and fire extinguishers.

Significant after Mitigation: Less than significant

Impact HAZ-3: Airport and Airstrip Hazards

Construction of new facilities in the vicinity of airports could involve conflicts with defined approach surfaces and safety zones surrounding the airports, if improvements could involve tall structures that could extend into approach surfaces. Areas of potential conflict could occur near the Modesto City-County Airport. There are two County parks in the vicinity of the Modesto Airport – Mono and Oregon Drive. Mono Park is planned for sale, and no tall structures are planned for Oregon Drive Park. The Modesto Airport safety zones also cover part of the Tuolumne River Regional Park. There are no plans for any structures in the portion of the regional park within the airport safety zones.

No County parks or recreational facilities are located in the safety zones of Oakdale Municipal Airport. No park facilities are located near the former Crows Landing Naval Auxiliary Landing Field. There are no known private airstrips in the vicinity of County parks and recreational facilities. Impacts of the Parks Master Plan related to airport and airstrip hazards are considered less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact HAZ-4: Interference with Emergency Evacuation Plans

The County has an Office of Emergency Services that is responsible for developing plans to respond to potential disasters. A typical part of these emergency plans is discussion of evacuation routes that would most likely be used for specific disasters, such as flooding and dam inundation. In times of emergency, it is important that these evacuation routes be free from obstructions that might slow or block evacuations. It is also important that roads and streets are clear to allow emergency vehicles to respond to calls. Chapter 16.0, Transportation, discusses this issue.

Improvements associated with the Parks Master Plan would involve no effect on operation of state or local emergency evacuation plans. Construction of most of the proposed improvements would not involve work on public roadways. For the few improvements that may occur near roadways, road closures are not anticipated. Construction equipment is mobile and can be relocated on short notice, so any interference with emergency responses or evacuations would be avoided or minimized.

Level of Significance: Less than significant

Mitigation Measures: None required

12.0 HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL SETTING

Surface Waters

The major surface water resources of Stanislaus County include several rivers, creeks, wetlands area and other natural features, as well as several man-made reservoirs and a network of irrigation canals and channels that support the agricultural use that dominates the Valley area (Figure 12-1). The waters of nearly all of these resources depend directly or indirectly on storm runoff and snowmelt from the Sierra Nevada. Outside the Central Valley, the river features are generally confined to canyons in the mixed geology of the foothills; within the Central Valley, the rivers meander within generally distinct floodplain areas.

The major rivers that flow through Stanislaus County are the San Joaquin River, the Stanislaus River, and the Tuolumne River. The San Joaquin River begins in the High Sierra and forms part of the boundary between Madera and Fresno counties before turning towards the northwest to flow through the middle of Merced and Stanislaus counties on its way to the Sacramento-San Joaquin Delta. The two main east-west flowing rivers in the County are the Stanislaus River and the Tuolumne River, both of which also have their sources in the High Sierra. The Stanislaus River forms part of the boundary between Stanislaus and San Joaquin counties, flowing by the cities of Oakdale and Riverbank to its confluence with the San Joaquin River. The Tuolumne River flows between the cities of Modesto and Ceres before discharging into the San Joaquin River.

Laird Regional Park is adjacent to the San Joaquin River and Laird Slough. The community of La Grange and, downstream, the various units of the Tuolumne River Regional Park are adjacent to the Tuolumne River, which is crossed by Basso Bridge just downstream of La Grange. The Riverdale Park is located on the south bank of the River, just downstream of Carpenter Road.

River flows vary widely during the year depending on the size, elevation, location and degree of water development in the watershed, and the annual precipitation and snowmelt from the Sierra Nevada. Watershed area, annual discharge, the range of mean monthly flow and peak recorded flows on the major rivers are shown in Table 12-1 below.

TABLE 12-1
MAJOR RIVERS WITHIN STANISLAUS COUNTY

River	Average Annual Mean Discharge (million acre-feet)	Peak Flood Flow (1,000 cfs)	Range of Average Monthly Mean Discharge (cfs)
San Joaquin System	3.13	79	1,460-7,430
Stanislaus	0.68	63	374-1,920
Tuolumne	0.95	57	402-1,980

cfs – cubic feet per second
Source: USGS 2015

Stanislaus County also contains numerous creeks and smaller streams. Significant creeks include Dry Creek in the east, Littlejohn Creek and Rock Creek in the area east of the San Joaquin River, and Del Puerto Creek, Crow Creek, and Orestimba Creek in the west. The county contains extensive wetland resources, in particular along the San Joaquin River floodplain and to a lesser degree along the more-incised floodplains for the Stanislaus and Tuolumne Rivers. A substantial amount of this area is contained within the San Joaquin River National Wildlife Refuge, west of Modesto. Substantial wetland areas have also developed along the margins of Woodward and Modesto Reservoirs, which are managed by the Department for recreational use in conjunction with water storage and regulation, and Turlock Lake, which also provides water storage but is managed by the State for recreational purposes. Undeveloped lands of the lower foothills support a large number of vernal pools and swales as well as lesser streams and drainages. Chapter 7.0, Biological Resources, discusses wetlands in more detail.

The larger bodies of water in Stanislaus County are the storage reservoirs, which are used primarily for storage of irrigation water and provide a supply for drinking water treatment plants supplying small cities in south San Joaquin County and the cities of Modesto and Turlock, and outlying areas. Woodward Reservoir, in the northeastern portion, is managed by the South San Joaquin Irrigation District (SSJID). Modesto Reservoir, in the eastern portion, is managed by MID. Turlock Lake, a reservoir in the southeastern portion of the County, is managed by TID. There are no large natural lakes in Stanislaus County.

Irrigation and water supply systems, including diversions, transmission and delivery canals, and related regulatory devices, are ubiquitous throughout Stanislaus County. Local agencies with responsibility for water supply are the irrigation districts. Modesto Irrigation District (MID) has approximately 208 miles of canals and pipelines in its irrigation service area in the northern portion of the county. Turlock Irrigation District (TID) has more than 250 miles of canals, most of them in the southern portion of the county. The western portion of Stanislaus County is crossed by the California Aqueduct, managed by the California Department of Water Resources (DWR) as part of the State Water Project, and the Delta-Mendota Canal, managed by the U.S. Bureau of Reclamation as part of the Central Valley Project. Another major water transmission system is the Hetch Hetchy Aqueduct, a set of large mostly underground pipelines managed by the City and County of San Francisco. The Aqueduct traverses the northern portion of the county between Hetch Hetchy Reservoir and the San Francisco Bay Area.

Groundwater

The Central Valley contains significant groundwater resources within the deep alluvial deposits of the area. In the foothills to the east and west, groundwater is present but is limited in volume, as geologic materials are of very low porosity. Groundwater resources in these areas are confined primarily to fracture systems and small alluvial areas, and the occurrence of groundwater can vary widely.

The San Joaquin Valley groundwater basin occupies a total of more 13,700 square miles, including all of the valley portions of Stanislaus County. Estimated storage at depths of less than 1,000 feet is over 570 million acre-feet with useable storage exceeding 80 million acre-feet. Water quality and well volume vary widely by local conditions; average well yields are about 1,100 gallons per minute. The portion of the county north of the Stanislaus River lies within the Eastern San Joaquin Subbasin. East of the San Joaquin River, the area south of the Stanislaus River and north of the Tuolumne River lies within the Modesto Subbasin, while the area south of the Tuolumne River lies

within the Turlock Subbasin. The portion of the county west of the San Joaquin River lies within the Delta-Mendota Subbasin.

Overdraft – the condition in which the extraction of groundwater from an aquifer exceeds its replenishment – is a problem in portions of the San Joaquin Valley, but the development of major surface irrigation water supplies by the South San Joaquin, Modesto, and Turlock Irrigation Districts has helped with this (DWR 2003). The Eastern San Joaquin and Delta-Mendota Subbasins are classified as overdrafted. The Modesto and Turlock Subbasins are not in an overdraft condition.

Groundwater levels within Stanislaus County vary by type of aquifer beneath the surface, seasonal changes in precipitation and snowmelt, and groundwater usage. Historically, groundwater levels in the central portion of the traditional MID service area ranged from 23 to 70 feet below ground surface, while levels closer to the San Joaquin River were as shallow as 10 feet below ground surface (Bookman-Edmonston 2005).

TABLE 12-2
GROUNDWATER SUSTAINABILITY AGENCIES IN COUNTY

Groundwater Sustainability Agency	Location in County	Date of Notice of Formation
DM-II	Western Stanislaus County	6/15/2017
Eastside San Joaquin	Northeastern Stanislaus County	5/10/2017
East Turlock Subbasin	Southeastern Stanislaus County	4/3/2017
Merced Subbasin	Northeast of Newman adjacent to San Joaquin River	3/28/2017
City of Newman	Newman	12/13/2016
Northwestern Delta-Mendota	Western Stanislaus County	3/14/2017
Oakdale Irrigation District	Eastern Stanislaus County near Oakdale	3/22/2017
City of Patterson	Patterson	3/3/2017
Patterson Irrigation District	Stanislaus County outside Patterson	3/28/2016
San Joaquin River Exchange	Southern Stanislaus County near Newman	12/29/2015
STRGBA	Stanislaus County between Stanislaus and Tuolumne Rivers (Modesto, Oakdale, Riverbank, Waterford)	2/28/2017
South San Joaquin	Woodward Reservoir	4/18/2017
West Stanislaus Irrigation District - 1	Western Stanislaus County	2/25/2016
West Stanislaus Irrigation District - 2	Western Stanislaus County	2/25/2016
West Turlock Subbasin	Southern Stanislaus County, Turlock	3/27/2017

Source: DWR 2017

In 2014, the California Legislature passed the Sustainable Groundwater Management Act, the purpose of which is to give local agencies greater authority to manage groundwater supplies. The legislation requires the formation of local groundwater sustainability agencies (GSAs) that must

assess conditions in their local water basins and adopt locally-based management plans. Local groundwater sustainability agencies are to be formed by June 30, 2017. Table 12-2 below shows the various GSAs that cover Stanislaus County, along with the dates of providing notice to DWR of their formation.

Under the Sustainable Groundwater Management Act, groundwater sustainability plans for critically overdrafted basins must be adopted by January 31, 2020, while other basins must adopt plans by January 31, 2022. The Eastern San Joaquin and Delta-Mendota Subbasins have been designated critically overdrafted basins, and thus must prepare management plans by the 2020 deadline. The Modesto and Turlock Subbasins do not have to submit a management plan until the 2022 deadline.

In 2014, the County adopted its Groundwater Ordinance, which requires permits for construction of new groundwater wells in areas outside districts with adopted groundwater management plans. These areas are located primarily in eastern Stanislaus County. New well permits require a demonstration based upon substantial evidence that the well will not result in "undesirable results" such as overdrafting or otherwise adversely affecting the groundwater resource. If this demonstration cannot be made, then an EIR must be prepared to determine whether or not the well would involve significant adverse groundwater effects.

Flooding

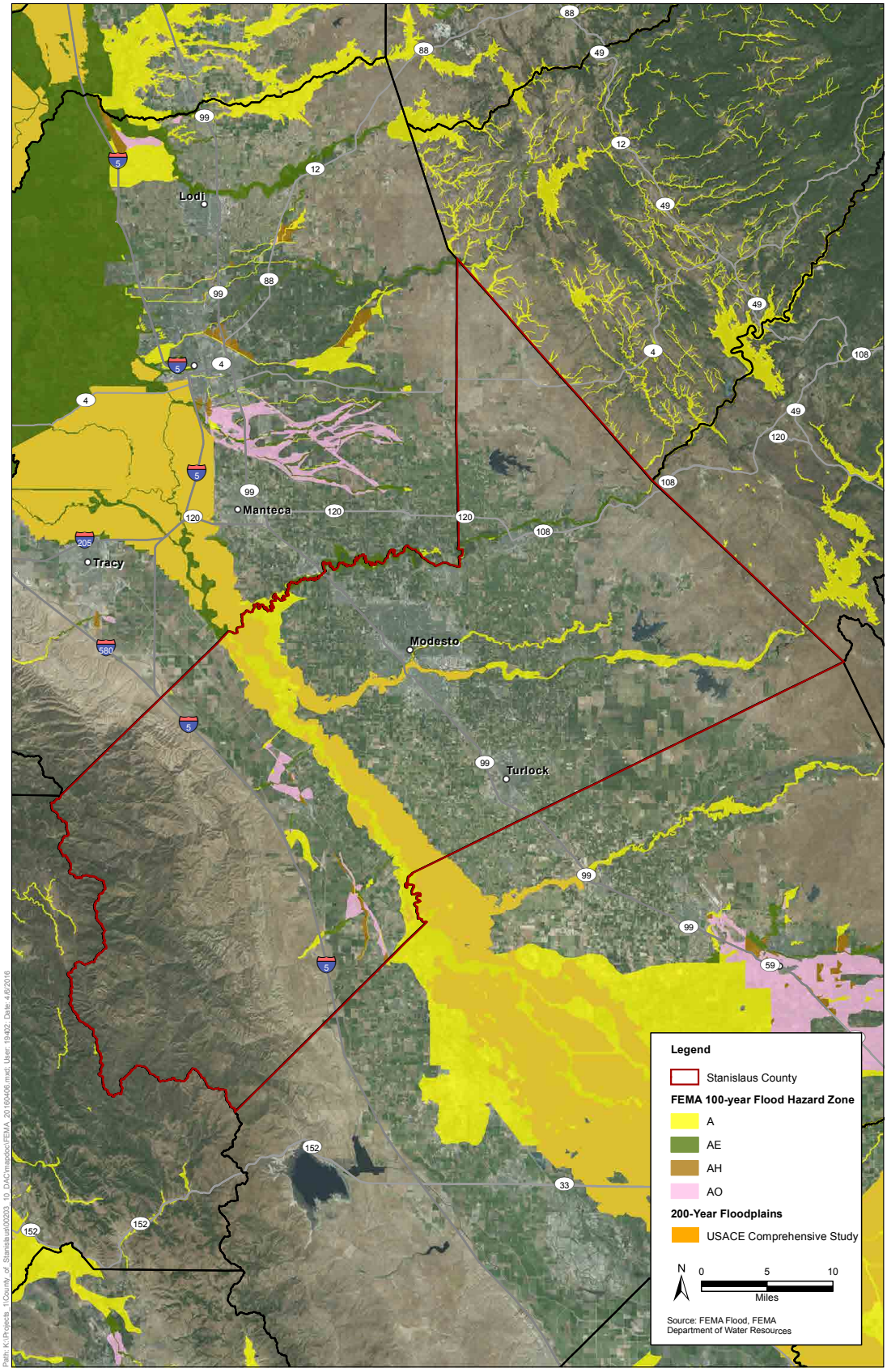
The Central Valley portion of the Program Area is subject to flooding, mainly areas along major rivers and streams. The Federal Emergency Management Agency (FEMA) has prepared maps identifying areas within a 100-year floodplain – an area that would be covered by a flood that would occur once every 100 years on average. In Stanislaus County, flooding hazards have been identified along the San Joaquin River, along the south bank of the Stanislaus River, and along isolated stretches of the Tuolumne River (Figure 12-2). The 100-year floodplains, as designated by FEMA, are confined to the Tuolumne River and to portions of Dry Creek, with broader floodplains located near the San Joaquin River (Stanislaus County OES 2010). The Corps of Engineers has purchased flowage easements along portions of the Stanislaus River so that they have the "right" to flood these areas (Stanislaus County 1994).

In 2007, the State of California approved SB 5 and a series of related Senate and Assembly bills intended to set new flood protection standards for urban areas. This group of bills, referred to collectively in this document as "the SB 5 Bills," establish the State standard for flood protection in urban areas as protection from the 200-year frequency flood. Under the SB 5 Bills, urban and urbanizing areas must be provided with 200-year flood protection no later than 2025. The DWR has drafted 200-year floodplain maps for areas along the San Joaquin River and the Tuolumne River. Additional more-specific mapping is being prepared by incorporated areas that have planned urban development in areas potentially subject to 200-year flooding.

A potential source of flooding is the failure of dams that retain water in reservoirs and of levees that hold back flood water along rivers and creeks. In Stanislaus County, dam failure areas have been identified for New Melones Dam, Don Pedro Dam, and San Luis Dam near the San Joaquin River (Stanislaus County OES 2010). Levees are found along the San Joaquin River and along the south bank of the Stanislaus River downstream of Ripon (DWR 2011). No other levees have been identified in the county.

BaseCamp Environmental

Figure 12-1
RIVERS AND STREAMS



SOURCE: Stanislaus County General Plan EIR (ICF 2016)

Figure 12-2
FEMA FLOOD ZONES

Water Quality

Surface and ground waters provide much of the drinking and irrigation water in Stanislaus County, so the quality of these waters is an important issue. In particular, Modesto Reservoir and Woodward Reservoir are significant sources of water for irrigation and for drinking water supply. They also provide recreational opportunities such as swimming, boating, and watersports. Impacts of these recreational activities on the water quality of these reservoirs has been indicated as an issue of concern. Woodward Reservoir and Modesto Reservoir Regional Parks are managed in accordance with lease agreements between the Department and the owner districts, including provisions for water quality maintenance consistent with downstream drinking water treatment and use. Water quality is monitoring by the water supply agencies in accordance with their respective State drinking water permits.

The RWQCB, in accordance with Section 303(d) of the federal Clean Water Act, maintains a list of "impaired waters" – waters that contain pollutants in amounts that compromise water quality. Table 12-3 lists the surface waters in Stanislaus County that are considered impaired waters, along with the pollutants responsible for the impairment and their potential sources.

TABLE 12-3
SECTION 303(D) LIST OF IMPAIRED WATERS IN STANISLAUS COUNTY

Surface Water	Contaminants	Potential Sources
Del Puerto Creek	Bifenthrin, chlorpyrifos, diazinon, dieldrin, dimethoate, diuron, E. coli, pyrethroids, salinity, sediment toxicity, unknown toxicity, pH	Agriculture, unknown
Dry Creek	Chlorpyrifos, diazinon, E. coli, unknown toxicity	Agriculture, unknown
Modesto Reservoir	Mercury	Unknown
Orestimba Creek	Azinphos-methyl, chlorpyrifos, DDD, DDE, DDT, diazinon, dieldrin, dimethoate, diuron, E. coli, malathion, sediment toxicity, unknown toxicity	Agriculture, unknown
San Joaquin River (from Merced River to Stanislaus River)	alpha.-BHC, chlorpyrifos, DDE, DDT, diazinon, electrical conductivity, Group A pesticides, mercury, water temperature, unknown toxicity	Agriculture, resource extraction, unknown
Stanislaus River, Lower	Chlorpyrifos, diazinon, Group A pesticides, mercury, water temperature, unknown toxicity	Agriculture, resource extraction, unknown
Tuolumne River, Lower	Chlorpyrifos, diazinon, Group A pesticides, mercury, water temperature, unknown toxicity	Agriculture, resource extraction, unknown
Turlock Lake	Mercury	Unknown
Westley Wasteway	Chlorpyrifos, dimethoate, E. coli, sediment toxicity	Agriculture
Woodward Reservoir	Mercury	Unknown

Source: RWQCB 2010.

Groundwater quality in the Modesto Subbasin is for the most part of good quality. Locally, some problem constituents include total dissolved solids, nitrates, radionuclides, dibromochloropropane, and volatile organic compounds, as well as localized areas of man-made contamination by gasoline, solvents, and other substances (STRGBA 2005). Groundwater quality in the Turlock Subbasin is generally good, such that municipalities using groundwater for drinking water are not required to provide significant water treatment. Contaminants that have been identified in Turlock Subbasin groundwater include salinity, nitrates, iron, manganese, arsenic, radionuclides, bacteria, and pesticides (Turlock Irrigation District 2008). In the Delta Mendota Subbasin, shallow, saline

groundwater occurs over a large portion of the subbasin, and there are localized areas of elevated levels of iron, fluoride, nitrate, and boron (DWR 2006).

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Significance Thresholds

According to Appendix G of the CEQA Guidelines, a project may have a significant impact on the environment if it would:

- Violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality,
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table,
- Substantially alter the existing drainage pattern of the area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site,
- Substantially alter the existing drainage pattern of the area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site,
- Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff,
- Place housing within a 100-year floodplain as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map,
- Place within a 100-year flood hazard area structures which would impede or redirect flood flows,
- Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a dam or levee, or
- Inundation by seiche, tsunami, or mudflow.

Impact HYDRO-1: Surface Water Resources and Quality

Several of the existing park facilities to be improved are located adjacent to surface waters and some will involve improvements that affect the waterways, for example through the construction of boat ramps and fishing docks and drainage improvements. Park improvements with potential for direct effects on surface would include the five regional parks, Riverdale Neighborhood Park, the fishing access facilities and, indirectly, the Tuolumne River Regional Park.

Planned improvements at Frank Raines Regional Park would involve relatively minor hydrologic effects, which would be "less than significant" for CEQA purposes. The improvement includes

unspecified "storm sewer infrastructure," which are assumed to be facilities such as new or replacement drainage lines and replacement or installation of waterway crossing culverts at road and OHV trail crossings.

At other locations, planned park improvements would include construction of new fishing and swimming docks as well as improvements to or paving of non-motorized boat ramps along the river bank or lake edge. In-water improvements are planned at Laird, Modesto Reservoir and La Grange Regional Parks (Basso Bridge), at Riverdale Neighborhood Park and at the J-59, Las Palmas and Shiloh Fishing Accesses.

In-water or shoreline improvements would not substantially affect the course or impede the flow of surface waters. However, they would likely require a U.S. Army Corps of Engineers permit and notification of the California Department of Fish and Wildlife. Assuming that required permits are obtained as required by mitigation measures below, the hydrologic effects of these improvements would be less than significant.

Planned improvements would involve the installation of new or improved potable water and restroom facilities, involving incremental increases in water demand. These demands would be met from new wells and would involve no direct effect on surface waters

Construction of certain planned improvements would involve substantial but localized earthmoving activities. The most substantial earthmoving activity would occur at proposed improvements to the regional parks. These improvements would include planned 50-100-seat amphitheaters at Frank Raines, La Grange, Laird and Modesto Reservoir Regional Parks. Planned improvements at Modesto Reservoir Regional Park would include several acres of slope grading to expand useable recreation areas. Construction of new entertainment facilities at Woodward Reservoir Regional Park would involve new entry, road and parking area construction, construction of a planned 7,500-seat amphitheater and other facilities required to accommodate entertainment and festival events. Areas of concentrated earthmoving activity would occur in the vicinity of lake and river waters.

Improvements at La Grange, Modesto Reservoir and Woodward Reservoir Regional Parks would involve the development of additional camp site and restroom facilities and new parking facilities at Modesto Reservoir and La Grange. Additional grading would be required at various locations in the park system in conjunction with planned paving of existing parking areas and access routes, although this activity would be relatively minor in comparison to new road construction. Other soil disturbance would be required in conjunction with miscellaneous park improvements, but this activity would be much less extensive and widely distributed.

Improvements at both Modesto Reservoir and Woodward Reservoir Regional Parks would occur near reservoirs used for both irrigation and drinking water. Erosion and sedimentation from construction activities near the reservoir could adversely affect the quality of these water sources (see Chapter 9.0, Geology, Soils, and Mineral Resources). In addition, expanded recreational uses at these reservoirs, especially water contact sports, also could affect water quality adversely.

Visitation-related concerns related to maintaining potable water quality are addressed through existing agreements between the County and the managing irrigation districts, including seasonal prohibitions on water contact recreation. Recreation management under these agreements has been adequate to maintain mutually-acceptable water quality.

Where proposed construction would involve disturbance of one or more acres, the County would be required to obtain a Construction General Permit issued by the Regional Water Quality Control Board (RWQCB), as part of the National Pollutant Discharge Elimination System (NPDES)

program. The NPDES program is a federal Clean Water Act program whose management in California has been delegated to the State, which in turn delegates responsibilities to the RWQCB. The Construction General Permit requires the preparation of a Storm Water Pollution Prevention Plan (SWPPP), which would establish required erosion control measures for each project. These measures are incorporated in the mitigation described below.

Sediment production at the OHV parks is controlled by routing runoff through settlement ponds; collected material is stockpiled and re-used in trail maintenance, with the application of erosion control measures. The Parks Master Plan provides for the incorporation of Low Impact Development (LID) stormwater quality at new and existing park facilities. LID techniques include the use of permeable or pervious surfaces and the capture and treatment of storm water runoff in biological and engineered water quality control features.

As described in Chapter 11.0, Hazards and Hazardous Materials, park maintenance likely would involve the use of hazardous materials such as pesticides, herbicides, and fertilizers. Application of vegetation and pest management products is by trained personnel and reported to the Agricultural Commissioner as required. Runoff is minimized by controlling sprinkler spray patters and other water conservation measures. Implementation of Mitigation Measure HAZ-1 would reduce the potential impacts of park development and maintenance on surface and groundwater quality.

Level of Significance: Potentially significant

Mitigation Measures:

HYDRO-1: The County shall comply with NPDES permit requirements for storm water discharge prior to construction activity. A Storm Water Pollution Prevention Plan shall be developed, and required protection shall be in place before earthmoving work begins. Permanent water quality protection structures, if necessary, shall be in place prior to public use of the facility.

Significance after Mitigation: Less than significant

Impact HYDRO-2: Groundwater Resources and Quality

As previously noted, depths to groundwater in the Program Area are generally 10 feet below ground surface or greater. Park improvement activities would involve relatively shallow excavations; no large-scale grading that could expose or cause interception or physical changes in groundwater systems is anticipated.

As discussed above and in Chapter 11.0, Hazards and Hazardous Materials, hazardous materials use associated with construction and operations would occur without the potential for discharges that could affect groundwater with the implementation of mitigation measures. With these protections, Master Plan implementation would have no significant hazardous material effect on groundwater.

As part of the proposed improvements to Modesto Reservoir and Woodward Reservoir Regional Parks, wells would be drilled to provide potable water service to existing and proposed recreational facilities. Improvement of neighborhood and community parks may lead to small increases in demand on groundwater resources, which would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact HYDRO-3: Drainage and Runoff

Several of the improvements proposed under the Parks Master Plan would involve the paving of existing roads and parking areas, along with additional sport courts and walking paths. These improvements would slightly increase the amount of impervious surface at these sites, and would lead to small increases in runoff. No localized flooding concerns have been identified as requiring correction at the facilities proposed for paving improvement, and runoff increases would be relatively small. As a result, this potential effect would be less than significant. Nonetheless, the following mitigation measures are recommended..

Level of Significance: Potentially significant

Mitigation Measures:

HYDRO-2: Drainage plans shall be prepared with each proposed project that would include additional impervious surfaces. Drainage systems shall be designed to control runoff volumes and velocities both during and after construction and to prevent significant erosion.

Significance after Mitigation: Less than significant

Impact HYDRO-4: Flood Hazard

County parks and recreational facilities are located along streams subject to 100-year flooding, including the Tuolumne River Regional Park, Kiwanis Park, Joe Domecq Wilderness Area, portions of La Grange Regional Park, and the fishing access points. Improvements placed within the 100-year floodplain of these facilities would be vulnerable to flooding. This is a potentially significant impact.

Several more parks are within identified dam inundation areas, particularly the New Melones and the Don Pedro inundation areas along the Stanislaus and Tuolumne Rivers, respectively. The Grayson parks are within the inundation areas for the San Luis, New Exchequer, and Pine Flat dams. The probability of dam failure is low at any given time, and the existing hazard would not change with the construction of the improvements. As park visitation grows, public exposure to these hazards would also increase incrementally. This is not considered a significant effect.

Mitigation measures described below would minimize the impacts flooding would have related to park improvements. With implementation of the mitigation measures, flooding impacts would be considered less than significant.

Level of Significance: Potentially significant

Mitigation Measures:

HYDRO-3: To the extent practicable, new facilities, structures, roadways, and utilities shall be located outside the 100-year floodplain. The County Parks Department shall consult with the County Department of Public Works and the County Planning

and Community Development Department to ensure compliance with this measure.

HYDRO-4: Stationary restroom facilities with potential exposure to 100-year floods shall be designed and constructed for flood resilience.

Significance after Mitigation: Less than significant

Impact HYDRO-5: Seiche, Tsunami, and Mudflow Hazards

A seiche is a standing wave in an enclosed or partially enclosed body of water, such as a reservoir. Strong winds and rapid changes in atmospheric pressure may induce a seiche, as would an earthquake. The Modesto Reservoir and Woodward Reservoir Regional Parks have bodies of water that potentially may experience seiche. Also the Turlock Lake Fishing accces is located adjacent to Turlock Lake, which also may experience seiche. However, there is no record of seiche occurring at these reservoirs, and the probability of the conditions for seiche occurring at a given time is low. The seiche hazard associated with these reservoirs is not considered significant.

Stanislaus County is located within the California interior; as such, it is not subject to a tsunami hazard. In the foothills, mudflow hazards would be increased in areas where there is loss of vegetation from wildfire. The likelihood of mudflow occurrence at any given location would require considerable speculation and need not be addressed under CEQA.

Level of Significance: Less than significant

Mitigation Measures: None required

13.0 LAND USE, POPULATION, AND HOUSING

ENVIRONMENTAL SETTING

Land Use Patterns

Stanislaus County is located in the northern San Joaquin Valley, in the heart of California's Central Valley. The county is bordered by the Coast Ranges to the west and the Sierra Nevada to the east. It spans nearly 1,500 square miles and has approximately 514,000 residents in its nine cities and unincorporated areas. Two of California's major north/south routes, Interstate 5 and State Route 99, traverse the county, connecting it to urban centers in the San Francisco Bay Area, Fresno, Stockton, and Sacramento (ICF 2016).

Stanislaus County is considered an agricultural county in transition. Population and economic growth in the Bay Area since 1960 have created an abundance of employment opportunities within commuting distance of the county's largest cities, and housing prices that are substantially higher. Resulting rapid population growth increased pressure to convert agricultural lands to residential and other non-agricultural uses. In response, voters passed the 30-Year Land Use Restriction Initiative (Measure E) in 2008, which requires majority approval by county voters before any redesignation or rezoning of agricultural or open space use to a residential use can be approved.

Land use in Stanislaus County can be generally described in relation to location in the Central Valley, or foothills which bound the Central Valley area to the west and east. Land use in the Central Valley region is dominated by intensive agriculture, including field crops, orchards, vineyards, and feed production. Agricultural product processing sites, such as canning, fruit packing and nut hulling facilities, ranging from small to large, are scattered throughout the agricultural areas. Chapter 5.0, Agricultural Resources, discusses agricultural activities in more detail.

The County's largest urban center is Modesto (population 215,080), which encompasses a wide range of land uses including residential, commercial, industrial, governmental, and institutional uses. Modesto's downtown area forms a block aligned to the Southern Pacific Railroad, and the City's urban sprawl extends more than 5 miles from the city center, mostly to the north and east. Several industrial clusters are found in the City, including the Beard Industrial District. The City is also home to the Modesto City-County Airport and Modesto Junior College.

The smaller cities of Ceres, Turlock, Oakdale, Riverbank, Waterford, Patterson, Hughson, and Newman, which range in population from approximately 7,300 to approximately 73,000, consist predominantly of residential areas with substantial lands devoted to commercial uses supporting the needs of residents. These cities also maintain some lands devoted to industry and, in the case of Turlock, CSU Stanislaus, a significant institutional use.

Outside of the incorporated cities are numerous unincorporated areas of development, ranging in size from a few clustered structures to substantial urban development. These communities include Denair, Empire, Grayson, Keyes, La Grange, Salida, and Westley, among others. Several of these communities are satellites of larger cities, e.g. Salida, Empire, and Denair. Other settlements developed around major crossroads or along significant bodies of water.

Most of the County's existing park facilities are located in the Central Valley portion of the County. These include a number of community and neighborhood park facilities in unincorporated areas of residential development including Salida, Empire, Grayson, Parklawn and Keyes, as well as the Laird Regional Park located along the San Joaquin River. The remaining regional parks are located in or at the margins of the foothill region; Frank Raines Regional Park is located several miles outside of the Valley in the Coast Range along Del Puerto Canyon Road. The Modesto and Woodward Reservoir Regional Parks are located adjacent to water storage facilities in the westernmost portions of the Sierra foothills area. La Grange Regional Park and the La Grange historical area are located adjacent to the Tuolumne River east of Modesto and Turlock Reservoirs.

Land use elsewhere in the foothills is primarily rangeland, consistent with the steeper grassland and oak woodland nature of the area. Livestock production ranges from light to intensive, depending on land capability. Localized areas with suitable soils and water supply are utilized for more intensive agriculture. The edge of the eastern foothills is increasingly being converted to orchards and vineyards where sufficient water supplies are available, as discussed in Chapter 5.0, Agricultural Resources.

Development in the foothills is generally limited to individual residences and small-scale settlements of residential and commercial development primarily serving local residents. Mineral resource development operations are located within this area. Communities in the foothills include Knights Ferry and La Grange in the eastern foothills, and the Diablo Grande development in the western foothills. Residential and related service commercial development is located in the vicinity of Lake Don Pedro in the eastern portion of the foothills area.

Stanislaus County is located immediately west of extensive public recreation opportunities associated with the Stanislaus River, Tulloch and New Melones Reservoirs; Lake Don Pedro and the Tuolumne River; and historic resources and sightseeing opportunities located in and around former Gold Rush mining towns along SR 49. State Routes 108, 120 and 132 provide direct access to these areas through Stanislaus County. Chapter 16.0, Public Services and Recreation, discusses Stanislaus County parks and recreational facilities in more detail.

Land Use Policies and Ordinances

Land use policy for unincorporated Stanislaus County, and for the various incorporated cities within the County, is set forth in each jurisdiction's general plan. Under California Government Code §65300, each county and city must adopt a "comprehensive, long-term general plan for the physical development of the county or city, and any land outside its boundaries which bears relation to its planning". In keeping with the requirement for a comprehensive plan, general plans address a variety of subjects, including the required elements of Land Use, Circulation, Housing, Conservation of Natural Resources and Open Space, Noise and Safety. Elements addressing other subjects may be added at the option of the local jurisdiction. Whether mandatory or optional, all general plan elements have equal legal status. Table 13-1 below shows the general plan status of Stanislaus County and its incorporated cities, focusing on the mandatory elements.

TABLE 13-1
STATUS OF GENERAL PLANS IN STANISLAUS COUNTY AND CITIES

Jurisdiction	Year Most Current Element Adopted						
	Land Use	Circulation	Conservation	Open Space	Noise	Safety	Housing
Stanislaus County	2016	2016	2016	2016	2016	2016	2016
Ceres	1997	1997	1997	1997	1997	1997	2016
Hughson	2005	2005	2005	2005	2005	2005	2015
Modesto	2008	2008	2008	2008	2008	2008	2017
Newman	2007	2007	2007	2007	2007	2007	2016
Oakdale	2013	2013	2013	2013	2013	2013	2016
Patterson	2010	2010	2010	2010	2010	2010	2015
Riverbank	2009	2009	2009	2009	2009	2009	2009
Turlock	2012	2012	2012	2012	2012	2012	2016
Waterford	2006	2006	2006	2006	2006	2006	2006

Each city has its own land use designations as set forth in its general plan. More detailed planning information and policy provisions for unincorporated communities is set forth in the County General Plan and in individual community plans. The Stanislaus County General Plan contains community plans for the following unincorporated communities: Crows Landing, Del Rio, Denair, Hickman, Keyes, Knights Ferry, La Grange, Salida, and Westley.

General plan elements typically contain policies that are intended to avoid or mitigate environmental effects of land development. While all elements may contain such policies, they are usually concentrated in the conservation and open space elements. As described in Chapter 5.0, Agricultural Resources, however, the County General Plan contains an Agriculture Element, one of the goals of which is to conserve agricultural lands. Agriculture is the predominant land use designation in Stanislaus County. Measure E, passed in 2008, requires a majority of County voters to approve any proposal to change lands designated as agricultural or open space to residential use. Consistent with this measure, most land designated for development in the unincorporated County is located within established unincorporated communities or adjacent to incorporated cities.

While general plan policies state the intent of a local jurisdiction on matters relating to the physical environment, actual implementation of these policies relies on local ordinances enacted by the jurisdiction, such as zoning, mitigation of agricultural land conversion, and groundwater management.

Land use regulations governing County park lands and development of other lands in the unincorporated area are contained within the Stanislaus County Zoning Ordinance. Zoning requirements within each of the incorporated cities are set forth in each city's respective municipal code.

The U.S. Army Corps of Engineers has floodplain easements restricting development of potentially-flooded lands along the Stanislaus River below Tulloch Reservoir.

Public Lands

The majority of land in Stanislaus County is privately owned. There are some lands that are owned, or have rights-of-way held, by public and quasi-public agencies. Public lands in Stanislaus County include the various existing holdings of the County Department of Parks and Recreation as inventoried in the Master Plan Update.

State lands include portions of the Turlock Lake State Recreation Area (see Chapter 16.0, Public Services and Recreation), along with title to State Route rights-of-way, waterways, and miscellaneous State lands and buildings such as CSU Stanislaus. The State maintains an interest in the submerged lands of California, which include lake and stream beds. The federal government has few land holdings, which are concentrated mainly in the San Joaquin National Wildlife Refuge in the center of the county.

The County, incorporated cities, and special districts have title to other lands such as roads, streets, corporation lands (e.g., wastewater treatment plants), and miscellaneous buildings and grounds. The school and community college districts maintain college, secondary school, and elementary school campuses. Public utility, irrigation, and reclamation districts maintain a variety of transmission lines, canals, levees, and other facilities on fee-owned and easement lands. The larger irrigation districts - MID, TID, and SSJID - have ownership interests in reservoir facilities and watershed lands in the Sierra Nevada foothills, including Modesto Reservoir, Turlock Lake, and Woodward Reservoir.

Population in Stanislaus County

Table 13-2 below shows population trends in Stanislaus County and its incorporated cities from 2000 to 2017. As of January 1, 2017, Stanislaus County had an estimated population of 548,057. This is an of approximately 22.6% from the 2000 U.S. Census population of 446,997. By comparison, the population of California increased by approximately 16.7% during the same time period (California Department of Finance 2012, 2017). In 2017, the population of the unincorporated area of the county was 114,891, an increase from the 2000 population of 106,785 of approximately 7.6%.

Most of the population in Stanislaus County reside in the incorporated cities, in population approximately 79%. The largest numerical increase in population has occurred in Modesto; however, Modesto's 13.9% rate of growth was lower than that of smaller cities. Waterford gr=ew by 28.6%, while Turlock and Ceres grew by 30.6% and 38%, respectively. Oakdale's population increased by 46.5%, and the populations of Hughson, Newman, and Riverbank increased by more than half of their respective 2000 populations. The population of Patterson almost doubled during the same period. County unincorporated communities also have substantial populations; according to the 2010 U.S. Census, Salida had a population of 13,722 and Empire had a population of 4,189.

Table 13-3 shows projected population growth for Stanislaus County and its incorporated cities to the year 2035, based on a growth forecast prepared by the Stanislaus Council of Governments (StanCOG). As indicated in Table 15-2, the population of Stanislaus County was projected to grow to 594,146 by 2020 and to 721,582 by 2035, the end year of the County General Plan's planning horizon. The 2035 population would be an increase of 40.3% from the 2010 population. However, by 2017 the population had only reached 548,057 (California Department of Finance 2017); thus far, growth has been slower than predicted. Many of the cities are projected to have greater increases in population from 2010 to 2035. Newman's population is expected to increase by more

than 70%, while Patterson's population would more than double (StanCOG 2014, cited in Stanislaus County 2016a).

TABLE 13-2
POPULATION OF STANISLAUS COUNTY, 2000 AND 2017

City	2000 Population	2017 Population	Population Change, 2000-2017
Ceres	34,609	47,754	+38.0%
Hughson	3,980	7,331	+84.2%
Modesto	188,861	215,080	+13.9%
Newman	7,092	11,165	+57.4%
Oakdale	15,503	22,711	+46.5%
Patterson	11,606	22,730	+95.8%
Riverbank	15,826	24,610	+55.5%
Turlock	55,811	72,879	+30.6%
Waterford	6,924	8,906	+28.6%
Unincorporated areas	106,875	114,891	+7.6%
Total – Stanislaus County	**446,997**	**548,057**	**+22.6%**

Source: California Department of Finance 2012, 2017

TABLE 13-3
POPULATION FORECAST FOR STANISLAUS COUNTY

Local Jurisdiction	**2010 Population**	**2020 Population**	**2035 Population**	**Population Change, 2010-2035**
Ceres	45,417	55,379	70,127	+54.4%
Hughson	6,640	7,437	8,805	+32.6%
Modesto	201,165	223,966	263,802	+31.1%
Newman	10,224	13,274	17,559	+71.7%
Oakdale	20,675	25,457	32,466	+57.0%
Patterson	20,413	30,375	43,559	+113.4%
Riverbank	22,678	27,627	34,961	+54.2%
Turlock	68,459	82,328	103,086	+50.4%
Waterford	8,456	10,496	13,464	+59.2%
Unincorporated area	110,236	117,807	133,753	+21.3%
Total – Stanislaus County	**514,453**	**594,146**	**721,582**	**+40.3%**

Source: Stanislaus Council of Governments 2014, cited in Stanislaus County 2016a.

Housing in Stanislaus County

As of January 1, 2017, the number of housing units in Stanislaus County exceeded 181,000. Single-family detached units made up approximately 74.6% of this total, in number 135,387. Multi-family units including duplexes and apartment complexes totaled 37,370, approximately 20.6% of the remainder, while 8,617 mobile homes made up the remaining 4.7% (California Department of Finance 2017). Multi-family units were concentrated in urban communities, along with more than 75% of single-family units. The remaining single-family units, along with a few hundred multi-family units and more than half the County's mobile homes, were outside urban centers. These units could be found in the smaller settlement areas, which were mostly distributed around major roads and rivers, or in the sparse habitations among agricultural lands. From 2000 to 2017, the percentage increase in the number of housing units in Stanislaus County exceeded the percentage increase in the state overall – 20.3% vs. 15.2% (California Department of Finance 2012, 2017).

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Significance Thresholds

According to Appendix G of the CEQA Guidelines, a project may have a significant impact on the environment relative to land use if it would:

- Physically divide an established community,
- 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, or
- Conflict with any applicable habitat conservation plan or natural community conservation plan.

Chapter 7.0, Biological Resources, discusses Park Master Plan impacts related to habitat conservation plans, so these impacts are not discussed in this chapter.

According to Appendix G of the CEQA Guidelines, a project may have a significant impact on the environment relative to population and housing if it would:

- Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure),
- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere, or
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

Impact LU-1: Private Land Use Conflicts and Division of Communities

Planned development of parks and recreational facilities described in the Parks Master Plan would occur within existing park areas or adjacent areas already owned by the County. These lands are already in or planned for recreational use and are contributing to existing community land use patterns. No expansion of existing park areas or development of new parks is planned in areas that would encroach on or potentially divide existing communities.

Construction of planned recreational facilities within existing parks would involve no substantial change in land use or interference with adjoining residential, agricultural, or other land uses in the vicinity. Planned improvements would enhance the recreational nature and attractiveness of these facilities, augmenting their amenity value to nearby development. The project would involve a less than significant effect in this issue area.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact LU-2: Land Use Plans and Policy Considerations

Proposed improvements included in the Parks Master Plan would be constructed within or adjacent to existing park lands. These lands have been designated for recreational use in the County General Plan and its Land Use Map, and County zoning is consistent with the County General Plan designations. Park development would be coordinated with the Community Development Department; this consultation would identify any design or mitigation that may be required to maintain consistency with adopted plans, zoning, and nearby land uses.

Proposed recreational improvements identified in the Master Plan Update have been reviewed for consistency with applicable land use designations, goals, policies and standards. No substantial conflicts have been identified.

This PEIR evaluates the potential impacts of the Parks Master Plan on biological resources and natural landscapes, and it describes mitigation measures as needed to avoid or minimize impacts on these resources. With these mitigation measures, proposed park improvements would not conflict with land use policies, programs, and ordinances designed to reduce environmental effects. The project would involve a less than significant effect in this issue area.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact LU-3: Public Land Use Conflicts

It is anticipated that no public lands would be affected by the Parks Master Plan, other than existing County parks and recreational facilities. The San Joaquin National Wildlife Refuge would not be affected by proposed activities, nor would most State lands. Development in areas near regulated waterways may require permits or approvals from federal or State agencies. Chapter 7.0, Biological Resources, discusses this in more detail. Compliance with permit or approval conditions would reduce impacts on affected public lands to a level that would be less than significant.

Planned improvements at Woodward and Modesto Reservoir Regional Parks would involve potential effects on lands and waters belonging to or subject to the control of the South San Joaquin and Modesto Irrigation Districts. Improvements or changes in management would, however, require consistency with the limitations contained in existing County leases, including required irrigation district approval of improvement plans, which should be adequate to prevent adverse land use effects. In any event, proposed improvements will be coordinated with the respective irrigation districts during the planning and engineering phases. No other public lands would be affected, as all work would occur within existing County parks and recreational facilities. Impacts of the Parks Master Plan on public lands would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact LU-4: Inducement of Population Growth

The Parks Master Plan is not expected to result in any direct effect on the amount or rate of population growth in Stanislaus County. No residences, commercial buildings, or industrial facilities would be constructed, so plan implementation would have no direct effect on population.

Indirect inducement of population growth is not expected to occur with implementation of the Parks Master Plan. Parks and recreational facilities offer recreational opportunities to residents who otherwise may not enjoy such opportunities, and they draw visitors from both within and outside of the County, and therefore could contribute incrementally to the attractiveness of Stanislaus County for land development. However, parks and recreational facilities are just one factor in a decision to relocate a household or a business to the County. Job and housing availability, quality of schools, and transportation accessibility are other factors, and it is likely that access to recreational opportunities is at best a secondary consideration. In addition, new parks and recreational facilities typically are constructed in response to population growth; they are generally an incidental product of population growth. Additional discussion on this issue is addressed in the Growth-Inducing Impacts section of Chapter 21.0, Other CEQA Issues. The impacts of the Parks Master Plan on population growth are considered less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact LU-5: Displacement of Housing and People

Proposed future facilities under the Parks Master Plan would be located in existing park areas or on County-owned land. The Master Plan does not indicate that any residential properties would need to be acquired for subsequent development. Since no housing properties would be acquired, no people would be displaced. The potential impacts of the Parks Master Plan on the displacement of housing and people are considered less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

14.0 NOISE

ENVIRONMENTAL SETTING

Noise Background

Noise is "unwanted sound," or sound that is annoying and/or harmful due to its loudness, pitch, or duration. Adverse effects of noise include annoyance, sleep and speech interference, and hearing loss. Noise analysis criteria are related to both annoyance and environmental health. There are two types of noise impacts: exposure of existing sensitive receptors to noise levels in excess of adopted standards, and placement of new sensitive receptors in areas where they would be exposed to noise levels in excess of the standards. Exposure of existing receptors to significant noise can result from new noise sources created by a project, construction activities near existing residences, traffic increases, or other changes in noise sources.

The decibel (dB) scale was devised to measure sound. The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. Within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by the A-weighting network. There is a strong correlation between A-weighted decibels (dBA) and the way the human ear perceives noise.

Community noise is commonly described in terms of the "ambient" noise level, defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the equivalent sound level (L_{eq}), which corresponds to a steady-state, A-weighted sound level containing the same total energy as a time-varying signal over a given time period (usually one hour). The L_{eq} shows very good correlation with community response to noise and is the foundation for other composite noise descriptors such as the day-night average level (L_{dn}) and the Community Noise Equivalent Level (CNEL). The L_{dn} is based upon the average hourly L_{eq} over a 24-hour day, with a +10 decibel weighting applied to noise during the hours between 10:00 p.m. and 7:00 a.m. to account for greater sensitivity during that period. The CNEL is the same as the L_{dn}, with an additional +5 decibel weighting applied to noise during the hours between 7:00 p.m. and 10:00 p.m.

Noise levels in developed areas are primarily a function of human, and especially mechanical, activity, and the intensity, duration and frequency of that activity. Noise levels also vary by distance from a noise source. The noise level at a given distance from a source can be estimated using the Inverse Square Law of Noise Propagation. Essentially, this law states that noise decreases by 6 dBA with every doubling of distance from a source (Harris 1991). Thus, the noise level 50 feet from a source decreases by 6 dBA at a distance of 100 feet, and by another 6 dBA at a distance of 200 feet.

Existing Conditions

The ambient noise environment in much of Stanislaus County is relatively quiet, based on the generally low level of noise-generating development and predominantly agricultural land uses.

Noise is concentrated in the vicinity of major highways, railroads, airports, industry, and urbanized areas, where L_{dn} noise levels may range upward from 50 dBA to more than 70 dBA in the immediate vicinity of major highways or moderately-used railroad lines. In rural areas removed from major transportation routes, daytime L_{eq} noise levels may range from 40 to 50 dBA, with occasionally higher levels depending on surrounding land uses, and nighttime levels between 30 and 40 dBA.

Transportation sources are some of the most consistent and ubiquitous sources of noise; consequently, they are the predominant sources of concern. In the vicinity of heavily-used urban freeways, L_{dn} noise levels of 60 dBA may be experienced more than one-quarter mile from the freeway, and levels in excess of 70 dBA may occur closer to the source. Along heavily used city streets and rural highways, L_{dn} noise levels of 60 dBA may occur within 1,000 feet of the road, although 70 dBA would be reached only in the immediate vicinity of the road. On lightly-used rural roads, only land uses in the immediate vicinity of the highway are substantially affected by noise. County parks are not situated in the immediate vicinity of freeways or other noise generating highways

Noise along railroad corridors may be substantial, depending on the number of daily train operations and their timing. A railroad line with numerous night operations can generate L_{dn} noise levels of 70 dBA in the vicinity of the tracks. Other than Wincanton and Countrystone Parks in Salida, the County park sites are not located adjacent to railroad lines. Empire and Parklawn parks are in the general vicinity of railroads.

Airport-generated noise is dependent on the number of operations and approach restrictions. Noise contours for the airports within the County are available in the ALUCP, which is described in Chapter 11.0, Hazards and Hazardous Materials. Two existing park facilities, Oregon Drive Park and Mono Park, are located in the vicinity of Modesto Airport. These parks are within the 60-65 dB CNEL contour for the airport but outside the 65 dB noise contour. No other existing park facilities are located near airports that generate substantial noise.

Noise levels in urban centers may vary locally where impacted by existing industrial land uses, which may generate daily or constant noise. Agricultural operations produce more intermittent or occasional noise associated with phases of agricultural production.

Noise Standards

Guidelines for the acceptability of noise have been developed by the EPA and adapted by the California Office of Noise Control as planning tools for use by local government in California. These are reflected in the Office of Noise Control's "Guidelines for the Preparation and Content of Noise Elements of the General Plan" (1976). While cities, counties and other agencies are free to adopt their own standards, most general plans incorporate these standards or a modified version of them.

An exterior noise environment of 50-60 dBA L_{dn} or CNEL is "normally acceptable" for single family residential land uses, and noise levels of up to 70 dBA L_{dn} or CNEL are "conditionally acceptable." For multi-family residential uses, noise levels up to 65 dBA are considered "normally acceptable." Commercial, industrial and recreational uses are considered less sensitive to noise, and therefore have higher levels of "normally acceptable" noise. The Office of Noise Control guidelines recognize that a more restrictive standard could be appropriate under special circumstances such as quiet suburban or rural settings.

The above composite noise standards are appropriate tools for assessing the acceptability of prevailing noise conditions; they do not recognize the impact of "intrusive" noise sources, or sources which involve intermittent, temporary, or similar noise events which are well above ambient levels. Some cities and counties have adopted standards for such sources, and others have not.

Stanislaus County has adopted a Noise Ordinance that defines maximum noise levels that may be received by specific land uses. For residential areas, the maximum outdoor noise level shall be 50 dBA from 7:00 a.m. to 9:59 p.m., and 45 dBA from 10:00 p.m. to 6:59 a.m. For noise-sensitive land uses (i.e., school, church, hospital, convalescent home, public library, cemetery, and sensitive wildlife habitat), the maximum outdoor noise level shall be 45 dBA at all times. Also, construction equipment cannot be operated at a noise level of 75 dB, as measured at or beyond the property line upon which a dwelling unit is located, between the hours of 7:00 p.m. and 7:00 a.m. However, the County Noise Ordinance exempts from its provisions construction or maintenance activities performed by, or at the direction of, any public entity or public utility. Activities on or in publicly-owned properties and facilities are also exempt, provided that such activities have been authorized by the owner of such properties or facilities.

Groundborne Vibration

Groundborne vibration is not a common environmental problem. It is typically associated with transportation facilities, although it is unusual for vibration from sources such as buses and trucks to be perceptible, except in locations very close to major roads. Some common sources of groundborne vibration are heavy trucks, trains, buses on rough roads, and construction activities such as blasting, pile-driving and operating heavy earth-moving equipment. The effects of groundborne vibration include felt movement of the building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. In extreme cases, the vibration can cause damage to buildings (FTA 2006).

Areas of potential concern for groundborne vibration within the County include those adjacent to state highways and railroad lines. The County Noise Ordinance prohibits the operation of any device that creates vibration that is above the vibration perception threshold of any individual at or beyond the property boundary of the source if on private property, or at 150 feet from the source if on a public space or public right-of-way.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Significance Thresholds

According to Appendix G of the CEQA Guidelines, a project may have a significant impact on the environment if it would result in:

- Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies,
- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels,
- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project,

- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project,

- For a project located within an airport land use plan or within two miles of a public or public airport if no plan has been adopted, exposure of people residing or working in the project area to excessive noise levels, or

- For a project within the vicinity of a private airstrip, exposure of people residing or working in the project area to excessive noise levels.

Impact NOISE-1: Exposure to Noise Levels in Excess of Standards

The regional County park facilities, along with the fishing access points, are located in rural areas where noise levels are generally low. It is anticipated that the existing rural character would be retained in these areas, and that these facilities would be exposed to at most minimal changes in ambient noise throughout the planning period of the Parks Master Plan.

Neighborhood and community parks, because of their location in more developed areas, would experience more elevated levels of noise. Since most of these parks are located in more residential areas, it is expected that the ambient noise would be less than in other developed areas. Most parks are located relatively far from major noise generators such as highways, railroads, and industrial sites. Exceptions would include Wincanton and Countrystone Parks in Salida. In any case, the noise to which these parks are and would be exposed would not be altered by park improvements. Park use and noise exposure would be short-term and governed by user choices. Impacts related to exposure to noise levels at these locations are considered less than significant.

Frank Raines and La Grange Regional Parks are devoted to OHV uses, which are substantial noise generators. Park users are exposed to OHV noise, but park use and park visitor noise exposure is short-term and governed by user choices. This park visitor/noise relationship would extend to the planned OHV extension area at Frank Raines Regional Park. Park visitor exposure to OHV noise would not be a significant concern or environmental effect in areas proposed for OHV expansion.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact NOISE-2: Generation of Noise Levels in Excess of Standards and Permanent Noise Level Increases

As noted in the discussion under Impact NOISE-1, regional County park facilities are located in rural areas. Few residences and other noise-sensitive land uses are located in the vicinity of these regional parks. Given their size and location, noise generated by expectable recreational activities in the regional parks is rarely audible beyond park boundaries. Even proposed facilities that may attract an increased number of visitors are not expected to generate noise levels that would be a disturbance to noise-sensitive land uses that may exist in their vicinity. New campgrounds and campsites proposed for development at Modesto Reservoir and Woodward Reservoir Regional Parks are likewise located in areas with compatible existing uses and little off-site development, and camping activities do not generate substantial amounts of noise. Incremental increases in recreational use over time are unlikely to generate substantial increases in traffic noise, given the

relatively low volume characteristics of traffic traveling to and from these parks (see Chapter 16.0, Transportation).

Planned development of a new entertainment venue at Woodward Reservoir Regional Park is intended to provide potential for scheduling of major music events and festival events. Amplified music and other sounds would be a part of future operations at this location. Without appropriate noise controls, which need to be defined in operating rules and mitigation measures for this facility as discussed below, event operations would have the potential to result in significant noise effects on off-site lands. There are three residences, or sensitive receptors, in the immediate vicinity of the northside area that could be exposed to project-related noise, so the number of people affected would be relatively small. Nonetheless, this potential impact would remain significant without mitigation. Stanislaus County is presently preparing a project-specific CEQA analysis of this project, which will need to be reviewed and adopted before planned development of the northside can move forward.

OHV use at the same parks generates noise and potential for impact on surrounding lands. In existing OHV areas, this is an existing condition, which would not, at La Grange, expand in geographic scope, as this area is not proposed to be enlarged. At Frank Raines, however, OHV use is proposed to be extended northward onto lands not previously subject to this use. Nearby lands are remote and in undeveloped open space; existing and anticipated future land uses in this area would not be considered noise-sensitive. As a result, OHV expansion at Frank Raines Regional Park would not involve a significant noise effect.

Fishing access areas also are located in rural areas. They receive relatively few visitors compared to other County park facilities, and they have no overnight facilities. The Parks Master Plan does not propose the construction of any overnight facilities at these points. Noise from increased usage that could flow from improvements at fishing access points is not considered a significant issue.

In general, neighborhood and community parks do not generate substantial levels of noise. Most visitors to these parks come from the more immediate area, and there are few facilities at the parks that would attract large numbers of visitors. However, some community parks have facilities such as ballfields that may attract larger numbers of visitors and traffic. Activities at these facilities have the potential to generate elevated levels of noise to which nearby residences could be exposed. Planned improvements to neighborhood and community parks would not result in any predictable increase in scheduling of noise-generating events; therefore, this potential effect would be less than significant.

Level of Significance: Potentially significant (Woodward Reservoir Northside)

Mitigation Measures:

NOISE-1: Prior to development or operation of the Woodward Northside entertainment venue, the County shall consider an analysis of potential volume, timing, and duration associated with noise-generating events and their impacts on noise-sensitive receptors in the vicinity of the proposed facility. Potentially significant noise impacts that are identified shall be avoided or minimized through design of facilities and sound systems, use of sound barriers, or limits on the volume and hours of operation.

Significance after Mitigation: Less than significant

Impact NOISE-3: Temporary Increases in Noise Levels

Construction activity and related equipment used for recreational improvements would result in temporary noise increases in the vicinity of improvement projects. Noise levels for construction equipment can reach 85 dBA at a distance of 50 feet (FHWA 2006). Table 14-1 below shows the noise levels of sample construction equipment. Where such activity occurs in the vicinity of sensitive receptors, potential noise impacts would occur. Sensitive receptors are similar to those defined in defined in Chapter 6.0, Air Quality – residences, schools, child care centers, hospitals, nursing homes, and other convalescent facilities. These land uses tend to be located in the more developed areas of Stanislaus County; as such, noise from construction activities at neighborhood and community parks would be a more significant issue than at more remote regional parks and fishing access points.

TABLE 14-1
CONSTRUCTION EQUIPMENT NOISE LEVELS

Type of Equipment	Maximum Level, dBA at 50 feet
Auger Drill Rig	84
Backhoe	78
Concrete Mixer Truck	79
Crane	81
Dozer	82
Excavator	81
Flat Bed Truck	74
Grader	85†
Pneumatic Tools	85
Scraper	84

Based on average of actual measurements, except where indicated.
Source: FHWA 2006.

Construction noise would be a short-term impact, affecting individual receptors typically for a few days, at most. Also, actual noise experienced would vary by distance from construction activities, as described in the Environmental Setting. However, even temporary noise would have the potential to disturb residents. Restricting construction activities so that noise does not occur during the evening and night hours, as provided in the following mitigation measure, would minimize this impact. Impacts of construction noise, with implementation of the mitigation measure, would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures:

NOISE-2: Consistent with the County Noise Ordinance, construction activities in the vicinity of sensitive noise receptors, such as residences, schools, day care centers, hospitals, nursing homes, and other convalescent facilities, shall be restricted to the hours of 7:00 a.m. to 7:00 p.m. All equipment used on the

construction site shall be fitted with mufflers which meet applicable manufacturers' standards.

Significance after Mitigation: Less than significant

Impact NOISE-4: Groundborne Vibrations

As previously noted, common sources of groundborne vibrations are heavy trucks, trains, buses on rough roads, and construction activities such as blasting, pile-driving and operating heavy earth-moving equipment. Project improvements proposed under the Parks Master Plan are not expected to use much, if any, heavy construction equipment. Given this and the short-term duration of construction work, groundborne vibration impacts are considered less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

15.0 PUBLIC SERVICES AND RECREATION

ENVIRONMENTAL SETTING

Fire Protection Services

Fire protection services throughout Stanislaus County are provided by local fire districts and by fire departments in some of the incorporated cities. The largest agency responsible for providing fire protection services in unincorporated Stanislaus County is the Stanislaus Consolidated Fire Protection District. The District serves approximately 550 square miles of unincorporated area, and also serves the cities of Oakdale, Riverbank, and Waterford. It currently has 12 stations: three each in Modesto and Oakdale, two in Riverbank, and one each in Waterford, La Grange, Valley Home, and Knights Ferry. As of 2014, the District had 69 career employees and took more than 7,000 calls for fire, hazardous material, and emergency medical services (Stanislaus County 2016b).

Other fire districts that cover substantial unincorporated areas include Denair Fire, Keyes Fire, Oakdale Rural Fire, Salida Fire, Turlock Rural Fire, and West Stanislaus Fire, among others. The cities of Ceres, Hughson, Modesto, Newman, Patterson, and Turlock have their own fire departments. The service areas of some of these city fire departments include unincorporated areas.

As noted in Chapter 11.0, Hazards and Hazardous Materials, Cal Fire provides fire protection services in the portions of Stanislaus County within State Responsibility Areas (SRAs). The Stanislaus Consolidated Fire Protection District works closely with Cal Fire in these SRAs (Stanislaus County 2016b).

Police Protection Services

Police protection services in unincorporated Stanislaus County are provided by the Stanislaus County Sheriff's Department. The main station is at 250 E. Hackett Road in Modesto, which is also the location of one of two detention facilities managed by the Sheriff's Department (the other is a men's jail on H Street in Modesto). The Sheriff's Department has approximately 600 employees, of whom __ are sworn officers.

Four incorporated cities have contracted with the County Sheriff's Department for police services: Hughson, Patterson, Riverbank, and Waterford. The other cities have their own police departments.

Schools

Public school services from kindergarten to 12th grade are decentralized; responsibility for public education is vested with numerous school districts located throughout Stanislaus County. School districts vary by service area, the number of students enrolled, and the level of education provided. For example, the Knights Ferry Elementary School District in northeastern Stanislaus County enrolled 91 students in the 2015-16 school year, while Modesto City Schools had more than 30,000 students enrolled in its elementary, middle, and high schools (California Department of Education

2017). There are also a variety of private schools serving kindergarten to 12th grade students and adults.

The Modesto Junior College District, the main community college district in Stanislaus County, maintains two campuses in Modesto. In the 2016-17 academic year, enrollment at Modesto Junior College was 24,149 (Modesto Junior College 2017). California State University (CSU) Stanislaus is located in the city of Turlock. Enrollment at CSU Stanislaus in the fall of 2016 was 9,762 (CSU Stanislaus 2017).

Other Public Facilities

Public libraries are located in all incorporated cities within Stanislaus County and in the unincorporated communities of Denair, Empire, Keyes, and Salida. Stanislaus County Library manages all of the County public libraries.

Courthouses in Stanislaus County, as in other counties, are staffed and maintained by the State of California. The main courthouse in Stanislaus County is in Modesto, with a division in Turlock.

Parks and Recreational Facilities

Recreational land uses are scattered throughout Stanislaus County, including state and local park lands, public access to woodlands and riparian corridors, and public lands reserved for wildlife habitat protection. There are also numerous private recreational facilities such as golf courses.

Recreation is an important land use within the Sierra Nevada foothills, as well as an important consideration for residents and travelers in the area. In addition to receiving substantial recreational travel from adjoining Central Valley areas, State highways passing through the eastern foothills provide primary access ways to the national parks, national forests, lakes and rivers, wilderness areas, resorts, camping and fishing areas and other recreational resources of the middle to high Sierra Nevada. Primary access ways include SR 4, 108, 120 and 132. SR 120 is one of three western gateways to Yosemite National Park. Recreational opportunities in the western foothills are much more limited, with few parks and recreational areas.

The major recreational resources within Stanislaus County are predominantly associated with water resource development. Turlock, Woodward, and Modesto Reservoirs receive heavy recreational use. Turlock Reservoir is operated by the State. The County manages regional parks at both Woodward and Modesto Reservoirs. These reservoirs provide opportunities for boating, fishing, and camping. The reservoir facilities provide opportunities for motorized water sports.

The Stanislaus County Parks and Recreation Department is the primary recreation provider for the unincorporated area, but its facilities are available to the population as a whole. The County's existing parks facilities, described in more detail in Chapter 1.0, 3.0 and Appendix A, include five regional parks, 22 community and neighborhood parks and a range of other recreation sites including several river and canal fishing access and miscellaneous other open space sites. Two of the regional parks – Frank Raines and La Grange – are devoted to OHV use. Woodward Reservoir and Modesto Reservoir Regional Parks, as mentioned above, are used for water-oriented recreation, camping and day use. Stanislaus cooperates with the cities of Modesto and Ceres in the management and development of the Tuolumne River Regional Park.

The Turlock Lake State Recreation Area is part of the California State Parks system. It is located on the north shore of Turlock Lake near the community of La Grange. Recreational activities are

primarily water-oriented: swimming, fishing, boating, and water skiing. Camping, picnicking, hiking, and bicycling are other activities offered at the recreation area. The San Joaquin National Wildlife Refuge, a federal facility, offers wildlife viewing and photography opportunities along the San Joaquin River.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Significance Thresholds

According to Appendix G of the CEQA Guidelines, a project may have a significant impact on the environment related to public services if it would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or generate a 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,
- Parks, or
- Other public facilities.

For recreational facilities and services, CEQA Guidelines Appendix G indicates that a project may have a significant impact on the environment if it would:

- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated, or
- Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Impact SERV-1: Fire Protection

Potential impacts on fire protection from the project would result from increases in fire risk at County Park facilities. Chapter 11.0, Hazards and Hazardous Materials, discussed potential wildfire hazards associated with implementation of the Parks Master Plan. Users of parks in the Fire Hazard Severity Zone would be exposed to a potential safety hazard from wildfires. In addition, parks improvements would lead to an increase in the number of visitors to the parks, which would also increase the probability that fires could be caused, either accidentally or intentionally. Fire risk would also be increased during construction of new facilities through equipment use and construction worker activities.

Neighborhood and community parks do not have overnight facilities, have well-maintained landscapes, and are located in areas with available fire protection services. Even with proposed improvements, neighborhood and community parks would at most generate a minimal increase in

demand for fire protection services, and would not require new or expanded fire protection facilities.

Fishing access areas have fewer visitors and no overnight facilities, and they are located near waterways, so the potential for fires at these facilities is typically lower. However, given their location in rural areas and generally restricted access, fishing access points could present challenges to local fire districts in responding to fires that start in these locations. Mitigation presented below would address access issues, reducing potential impacts to a level that would be less than significant.

Demand for fire protection services would most likely be greatest at the regional parks, which attract more visitors and have overnight facilities such as campgrounds. The Parks Master Plan proposes improvements at these regional parks, such as additional campgrounds and extension of existing OHV use at Frank Raines Park, that would further increase the number of visitors and the use of more remote and inaccessible areas, increasing the probability that fires could start and spread. Moreover, given their location in more remote rural areas, responses to calls for fire protection services at regional parks would take longer. County fire control plans will need to be updated to address changes in park usage and fire risk.

Special public events at the regional parks, including the large new venue at Woodward Reservoir, can be expected to attract large numbers of people and include overnight camping, expanded electrical usage and temporary water systems. Adequate fire protection for such events depends on event organization and layout, maintenance of adequate access for emergency vehicles, availability of fire suppression materials and equipment and trained personnel able to make a quick response. Public events are subject to event-specific permits issued by the Department of Parks and Recreation. Event plans must be prepared and submitted to the Department of review and approval; event plans must include provisions for provision and maintenance of adequate fire control and verification throughout the event. Based on County experience, the permit process has prevented significant fire risks. Based on this existing practice, incorporated in mitigation measures below, special public events would not result in a significant fire protection effect.

Mitigation Measure HAZ-3, described in Chapter 11.0, Hazards and Hazardous Materials, would require preparation of a plan to reduce potential wildfire hazards in areas where the regional parks are located. In addition, mitigation presented below would require continued coordination between the County and affected fire districts. Implementation of these mitigation measures would reduce potential fire protection impacts to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures:

PS-1: Mitigation Measure HAZ-3

PS-2: The Parks and Recreation Department will update fire control plans for park facilities as part of improvements to regional or neighborhood parks or fishing access points. As part of this process, the Parks and Recreation Department shall consult with the appropriate local fire district or Cal Fire in the effort to provide adequate fire protection access at each location.

PS-3: Permits for special public events, especially large gatherings, shall be conditioned on the establishment and maintenance of adequate fire control for the duration of the event, including setup and takedown.

Significance after Mitigation: Less than significant

Impact SERV-2: Police Protection

Parks Master Plan implementation will involve incremental increases in demand on police protection service as park visitation increases over time. No substantial increase in police services would be anticipated. Although the County Sheriff's Department has established patrols for the unincorporated areas, response times would remain extended, particularly for calls in more remote areas where the regional parks and fishing access points are located. However, no new or expanded facilities are expected to be required, and no significant environmental impact on police services is expected.

As with fire protection services, coordination with the County Sheriff's Department on provision of service is recommended in conjunction with planned park improvements.

Large public events at the regional parks can generate special law enforcement demands, which will require the presence of trained security personnel and staffing coordination with the County Sheriff. As discussed for fire control, these events require event-specific permits that must include security plans, which are subject to the review and approval of the Department. Based on County experience, the permit process has prevented significant law enforcement problems. Based on this existing practice, incorporated in mitigation measures below, special public events would not result in a significant police protection effect.

Level of Significance: Potentially significant

Mitigation Measures: In addition to Mitigation Measure PS-2, the following measure shall be implemented:

PS-4: Permits for special public events, especially large gatherings, shall be conditioned on the establishment and maintenance of adequate security, coordinated with the County Sheriff's Department as required, for the duration of the event, including setup and takedown.

Significance after Mitigation: Less than significant

Impact SERV-3: Schools and Other Public Facilities

As discussed in Chapter 13.0, Land Use, Population, and Housing, Parks Master Plan implementation would not affect population growth. Population growth drives demand for school facilities, libraries, and other public services. Since the Parks Master Plan would not induce population growth, implementation would not lead to a demand for new or expanded schools, libraries, courthouses, or other public facilities. Impacts would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact SERV-4: Parks and Recreation Facilities

The purpose of the Parks Master Plan is to guide development of County parks and recreational facilities for the years 2018-2038. Projects proposed as part of plan implementation would directly

affect parkland areas, improving these facilities for recreational use and public enjoyment. This would be considered a beneficial effect of the project. The potential environmental impacts of implementation are evaluated in this PEIR, which identifies potentially significant impacts proposes mitigation measures to avoid or reduce these impacts. With implementation of the mitigation measures described in this PEIR, impacts on parks and recreational facilities would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

16.0 TRANSPORTATION

ENVIRONMENTAL SETTING

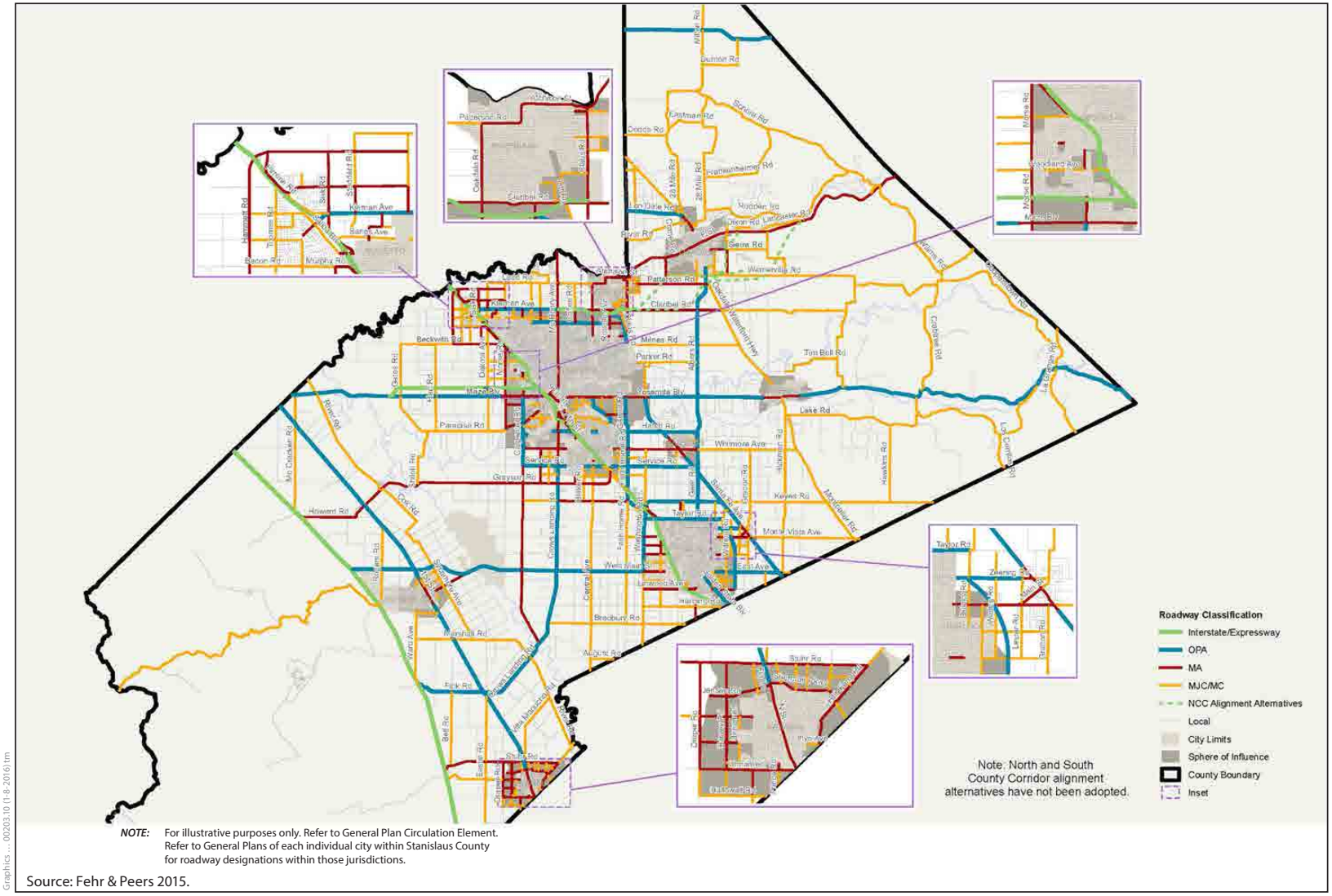
Road System

Stanislaus County is served by a network of State Routes and local streets and roads. There are approximately 2,999 highway and road miles within the county. Of these total miles, approximately 1,508 miles are County roads, 1,290 miles are city roads and streets, and 181 miles are State highways. The remaining road mileage mainly includes roads on federal lands (California Department of Transportation 2014a).

Figure 16-1 illustrates the road system in Stanislaus County, with State and major local roadways. The principal roadways are Interstate 5 and SR 99. Interstate 5 is the major interregional freeway on the West Coast, connecting Stanislaus County with Sacramento, Oregon and Washington to the north, and with Los Angeles and San Diego to the south. This freeway traverses the western portion of the county, passing near the cities of Newman and Patterson. Traffic on I-5 as it passes through Stanislaus County is about 40,000 vehicles per day. SR 99 is a freeway between Sacramento and its southern terminus south of Bakersfield. Between Sacramento and its northern terminus at Red Bluff, SR 99 consists primarily of four-lane highway, with segments of freeway and multi-lane expressway. In Stanislaus County, SR 99 connects the cities of Modesto, Ceres, and Turlock and the communities of Keyes and Salida. Highway 99 traffic ranged from about 60,000 to 137,000 vehicles per day in 2015.

Several State Routes provide primarily east-west regional circulation. These are predominantly two-lane surface highways with selected four-lane segments in high-traffic areas, although SR 108 and SR 120 include freeway and expressway segments. East-west State Routes include:

- SR 4 – Traverses northeastern corner of Stanislaus County as it connects the San Francisco Bay Area, Stockton, and Ebbetts Pass in the Sierra Nevada.
- SR 120 – Links Manteca, Yosemite and Tuolumne Pass in the Sierra Nevada. Passes through Oakdale in the County. A major route to the San Francisco Bay Area (via Interstate 205 and 580).
- SR 108 – Links Modesto and Sonora Pass in the Sierra Nevada. Passes through Riverbank and Oakdale.
- SR 132 – Links Modesto with Tracy and the Tuolumne/Mariposa County foothills. Another major route to the Bay Area (via Interstate 580).
- SR 219 – Connects SR 99 at Salida with SR 108 north of Modesto. Also known as Kiernan Avenue.



NOTE: For illustrative purposes only. Refer to General Plan Circulation Element. Refer to General Plans of each individual city within Stanislaus County for roadway designations within those jurisdictions.

Source: Fehr & Peers 2015.

Graphics ... 00203.10 (1-8-2016).tm

SOURCE: Stanislaus County General Plan (ICF 2016)

Figure 16-1
ROADWAY CLASSIFICATION

Aside from SR 99, there are two north-south State Routes in Stanislaus County. SR 33 traverses the western portion of the county east of Interstate 5, passing through Westley, Patterson, and Newman as it continues south to Ventura County. SR 165 extends south from Turlock into Merced County.

County roads vary in size and traffic capacity. In rural areas, County roads are predominantly two-lane roads; a typical configuration would include a two-lane paved road with minor paved shoulders through sparsely-settled agricultural and rural residential areas. Substantial portions of the right-of-way are often in unpaved shoulder and undeveloped area. In more developed areas, expanded shoulder width and additional lanes are provided where higher traffic requires additional capacity. A number of County roads provide for regional travel and connections between the incorporated cities and unincorporated communities. Examples include McHenry Avenue, Santa Fe Avenue, Keyes Road, Howard/Grayson Road, West Main Street/Las Palmas Avenue, Crows Landing Road, and Geer/Albers Road (Stanislaus County 2016b).

Streets within incorporated cities vary in width and amenities, depending on the nature and volume of vehicular, pedestrian, and other uses. City streets range from narrow two-lane local streets to multi-lane urban arterials and expressways, often occupying all available right-of-way when sidewalks are included.

Railroads

Stanislaus County is served primarily by two federally-regulated private railroads – Union Pacific and Burlington Northern Santa Fe (BNSF). There are also two short-line railroads in the county – the Sierra Northern Railway with stations at Oakdale and Riverbank, and the Modesto & Empire Traction Company, which serves the Beard Industrial District.

Railroads serving Stanislaus County are oriented mostly northwest to southeast. Along the east side of the area, the BNSF line runs from Sacramento south through Manteca and Modesto. A branch line runs east from Stockton and southeast through Oakdale to the Waterford area. Another BNSF line runs southeast from Stockton through Escalon, Riverbank and Empire. A Union Pacific line runs south from Stockton to Escalon and Modesto. The Sierra Northern Railway operates two lines: one from Riverbank in eastern Stanislaus County into the foothill communities of central Tuolumne County, and the other from Oakdale in eastern Stanislaus County to Sonora in Tuolumne County.

The railroad lines in Stanislaus County are predominantly used for freight, but lines connecting urbanized and urbanizing areas are increasingly being used by commuter trains. Amtrak operates the San Joaquin passenger routes through the Central Valley; Amtrak stations are located in Modesto and Turlock-Denair. The Altamont Commuter Express (ACE), a commuter rail service connecting Stockton to San Jose, has proposed an extension from Lathrop in San Joaquin County to downtown Modesto by 2019 and eventually to the city of Merced. The State Legislature has recently approved a transportation bill that includes funding for the ACE extension. The California High Speed Rail Authority has proposed a high-speed rail line between Sacramento and Merced that would include a station in Modesto, but this line has not been funded and is not anticipated to be constructed in the near future.

Airports

Chapter 11.0, Hazards and Hazardous Materials, identifies public airports in Stanislaus County. The Modesto City-County Airport is the largest airport in Stanislaus County. A public airport managed by the City of Modesto Public Works Department, the Modesto Airport provides general

and corporate aviation services, and formerly provided commercial passenger service. Other airports include the Oakdale Municipal Airport, a public airport serving general aviation needs of the community, and the Crows Landing Naval Auxiliary Landing Field, formerly owned by the U.S. Navy but now closed. As noted in Chapter 11.0, the FAA regulates airport operations, airspace use, and aspects of land use which affect aviation, in particular noise and safety influences.

Public Transportation

Stanislaus Regional Transit (StaRT), managed by the County Department of Public Works, provides bus service throughout Stanislaus County. It serves cities and unincorporated communities, plus provides service to Merced and Gustine in Merced County. StaRT operates fixed route, deviated fixed route, and curb-to-curb, dial-a-ride services, and it provides non-emergency medical transportation to Bay Area medical facilities. It has Memoranda of Understanding to operate dial-a-ride services in the cities of Newman, Oakdale, Patterson, Riverbank, and Waterford.

StaRT connects with the three other public transit systems in Stanislaus County: Ceres Area Transit (CAT), Modesto Area Express (MAX), and Turlock Transit. The service area for CAT is confined mainly to Ceres, although it connects with MAX. MAX is centered in Modesto, but provides bus service to the unincorporated communities of Salida and Empire. MAX also provides commuter bus service to the ACE station in Lathrop in San Joaquin County and to the Dublin/Pleasanton Bay Area Rapid Transit (BART) station in the eastern Bay Area. Turlock Transit serves the Turlock area, with connections to StaRT and Merced County Transit. All transit services are supported through the construction and operation of transit amenities and facilities, such as bus shelters, bus benches, and bus stop signs.

Bicycle and Pedestrian Travel

Bicycling in Stanislaus County is done for utilitarian purposes, such as trips to work or schools, as well as longer recreational rides that often occur in the more rural parts of the county. Bicycles account for approximately 0.5% of commuter travel in Stanislaus County. Oakdale has the highest percentage of bicycle commuter travel at 0.9%, followed by Turlock at 0.8% (StanCOG 2013). Figure 16-2 shows the existing and proposed bicycle network in Stanislaus County. Numerous bike lanes and bike routes have been established in the incorporated cities and some unincorporated areas. However, bicycle access to many destinations remains difficult, due to multi-lane roadways with high speeds in urban areas, and narrow roadways with limited or no shoulders in rural areas (StanCOG 2013).

Pedestrian activity is most concentrated in the developed areas of Stanislaus County, and most of the County's sidewalks are located in these areas. In urban areas with sidewalks, long crossing distances and wide curb radii increase pedestrian hazards. In rural areas, lack of sidewalks and limited shoulder areas on State Routes are also safety concerns.

Regulatory Framework

The Circulation Element of the Stanislaus County General Plan (Stanislaus County 2016a) sets forth policies and implementation measures related to transportation. Implementation Measure 1 of Policy Two of the Circulation Element states that the County shall maintain a daily Level of Service (LOS) D or better for all County roadways and a peak hour LOS of C or better intersections, except within a sphere of influence of a city in which the city has adopted a lower LOS standard. LOS is a

measure of traffic flow on roadways and traffic delays at intersections using a scale from A to F, with A representing the best traffic flow or shortest intersection delays and F representing the worst traffic flow or longest intersection delays.

The Stanislaus Council of Governments (StanCOG) adopted its Congestion Management Process in 2010 in accordance with federal transportation legislation. The Congestion Management Process was developed to improve multimodal mobility and to avoid the creation of deficiencies in mobility. It designates roadways that are part of the Congestion Management Process network in Stanislaus County, primarily State Routes and principal arterials. It describes a monitoring program for the roads in the network, measuring LOS and other characteristics. Implementation and management strategies are described with the intent of mitigating congestion on the road network (StanCOG 2010).

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Significance Thresholds

According to Appendix G of the CEQA Guidelines, a project may have a significant impact on the environment if it would:

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit,
- Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways,
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks,
- Substantially increase safety hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment),
- Result in inadequate emergency access, or
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Impact TRANS-1: Traffic Volumes and Flow

Construction of park improvements would generate some vehicular traffic on highways and local roads, mainly from worker trips. These trips would be temporarily concentrated during the construction period, but construction activities would be dispersed throughout Stanislaus County and distributed over time during the planning horizon. Anticipated construction-related traffic would not result in significant increases in existing traffic levels.

Certain improvements along or near urban streets and narrower rural roads may requires use of traffic lanes during construction work, causing a minor impedance of local traffic. This would not be considered a significant effect.

New, additional, or improved facilities associated with the Parks Master Plan should result in some increases in visitor traffic; this would include new neighborhood parks to be developed. Parks are not typically high traffic generators. For the most part, traffic increases in any given hour would be minimal and less than significant.

Special public events at existing parks, such as the July 4 celebration at Woodward Reservoir, or new music and festival events at Woodward Reservoir Northside, would result in temporary but large increases in existing traffic levels on two-lane County roads, the capacities of which vary but in general would be more limited than multi-lane roads. According to the Stanislaus County General Plan EIR, prepared in 2016, most of the access roads to the park facilities, including the regional parks, are currently operating at LOS A or B. Roads in Stanislaus County operating at LOS D or worse are located mainly in the area along the SR 99 corridor. Special event traffic has the potential to result in short-term but locally significant traffic effects during such events. Potential traffic impacts can be reduced by preparing and implementing event-specific traffic management plans.

The County General Plan EIR projected operating conditions in the year 2035 for the more significant County roadways. Most of the roadways expected to operate at conditions worse than LOS D in 2035 are State Routes in or near the city of Modesto (SR 99, SR 120, and SR 132), where most County parks and recreational facilities are not located. Some facilities are located in Salida, Keyes, and the unincorporated areas near Modesto. Most of these parks are neighborhood parks, which as previously noted would not attract significant traffic volumes. None of the regional parks, which are more likely to generate substantial traffic volumes, are in the projected congested area. As a result, traffic generated by new or improved recreation facilities would not be expected to have a potentially significant impact on traffic flow on nearby roads.

Level of Significance: Potentially significant (special events)

Mitigation Measures:

TRANS-1: Permit applications for high-attendance public events shall include provisions for adequate traffic management.

Significance after Mitigation: Less than significant

Impact TRANS-2: Congestion Management Programs

As previously noted, StanCOG adopted its Congestion Management Process in 2010 to analyze and address regional congestion in Stanislaus County. The Parks Master Plan would have no substantial permanent impact on roads and on traffic congestion. As discussed in Impact TRANS-1, individual projects would at most have temporary impacts on traffic flow. Traffic volumes are not expected to substantially increase as a result of implementation of the Parks Master Plan.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact TRANS-3: Air Traffic

Implementation of the Parks Master Plan is not expected to generate any substantial additional air traffic. As discussed in Chapter 15.0, Population and Housing, the plan would not generate additional population growth, which could potentially increase demand for air passenger services. As discussed in Chapter 11.0, Hazards and Hazardous Materials, there are two County parks in the vicinity of the Modesto City-County Airport – Mono and Oregon Drive, as well as part of the Tuolumne River Regional Park. None of these parks have, or will have, facilities that could disrupt air traffic. No County parks or recreational facilities are located near the Oakdale or Crows Landing airports. Impacts of the Parks Master Plan on air traffic are considered less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required.

Impact TRANS-4: Safety Hazards and Emergency Access

As described in Impact TRANS-1, construction associated with the Parks Master Plan improvements have a small potential to affect traffic on public roads. Ordinary coordination with the road agencies would reduce any potential hazards associated with project construction to a less than significant level.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact TRANS-5: Non-Motor Vehicle Transportation

Projects associated with the Parks Master Plan may involve construction along existing railroad lines, waterways used by boats, and roads and streets used by public transit, bicycles, and pedestrians. Project design and construction will need to be coordinated with the affected agencies if necessary to avoid conflicts or clearance problems as required. In any event, due to the small scale of the improvements and low potential for conflict, these effects would be considered less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

17.0 UTILITIES AND SERVICE SYSTEMS

ENVIRONMENTAL SETTING

Wastewater Systems

Wastewater disposal services are provided within the incorporated cities and other densely populated areas via centralized treatment facilities and sewer lines within public street rights-of-way. Wastewater facilities are operated by the municipality or special districts. In Stanislaus County, special districts that operate wastewater systems include Denair Community Service District (CSD), Empire Sanitary District, Grayson CSD, Keyes CSD, Salida Sanitary District, Western Hills Water District (Diablo Grande), and Westley CSD. The Stanislaus County Housing Authority provides wastewater service to its Migrant and Farm Labor Housing Complex in Westley and to the Westley CSD on a contract basis. Wastewater collected at the centralized facilities is treated and disposed in accordance with the conditions of the NPDES permit or Waste Discharge Requirements issued by the Regional Water Quality Control Board.

In the rural and agricultural areas, wastewater disposal needs are usually met on-site by individual owners' septic tank/leach field systems installed in accordance with County Environmental Resources requirements.

Most County park facilities are not served by community wastewater collection and treatment systems; exceptions include several parks located in or near urbanized areas. Woodward Reservoir and Modesto Reservoir Regional Parks maintain centralized wastewater treatment systems. Other County facilities provide restrooms served by on-site treatment systems, vault toilets or portables.

Water Systems

Domestic, commercial and firefighting water supply within incorporated cities is ordinarily provided by a municipality or a special district. Water storage tanks and reservoirs feed a system of distribution mains ordinarily located within public streets. Water supplies for cities within Stanislaus County are derived primarily from surface water development in the Sierra Nevada and its foothills and from wells that extract water from the extensive groundwater aquifers underlying the Central Valley.

Special districts that supply water in the unincorporated communities include Crows Landing CSD, Denair CSD, Keyes CSD, Knights Ferry CSD, Monterey Park Tract CSD, Riverdale Park Tract CSD, Western Hills Water District, and Westley CSD. The Modesto Irrigation District (MID), Oakdale Irrigation District (OID), and Turlock Irrigation District (TID) provide drinking water to some communities, along with irrigation water for agricultural customers. The Stanislaus County Housing Authority provides water service to its Migrant and Farm Labor Housing Complex in Westley. The City of Modesto provides water to the community of Grayson.

Domestic water supply in rural areas typically is provided by individual groundwater wells or small water systems serving several residences. As noted in Chapter 12.0, Hydrology and Water Quality,

Stanislaus County has a Groundwater Ordinance that requires permits for construction of new wells in areas outside districts with adopted groundwater management plans.

Agricultural water supply systems rely on reservoirs located in the Sierra Nevada foothills, and a system of diversions, canals, and pipelines which deliver water to customers. There are three large irrigation districts within Stanislaus County: MID, OID, and TID. There also are smaller irrigation districts such as the West Stanislaus Irrigation District and the Patterson Irrigation District. The South San Joaquin Irrigation District (SSJID) manages Woodward Reservoir in northeastern Stanislaus County and provides water service to agricultural lands and small cities in San Joaquin County.

The City and County of San Francisco, through its Hetch Hetchy Project, maintains a large municipal water supply reservoir east of the County, but transmits water through large above- and below-ground aqueducts running east-northeast to west-southwest through Stanislaus County. The Hetch Hetchy Aqueduct, constructed in 1934, runs through the Oakdale vicinity and Modesto to its crossing the Coast Ranges south of Tracy. Water from the Hetch Hetchy Project is not available for use by County residents or businesses.

Most County parks are not served by developed drinking water systems. Well-supplied systems are located at Frank Raines, Woodward and Modesto Reservoir Regional Parks. Well- supplied systems have been installed at other neighborhood and community parks.

Storm Drainage

Storm drainage in urbanized areas is generally provided via storm drains operated and maintained by municipalities or special districts. These systems discharge to detention facilities or receiving waters. Under the federal NPDES program, the RWQCB has developed permits for municipal separate storm sewer systems, which require preparation of a Storm Water Management Plan with the goal of reducing discharge of pollutants from storm water to the maximum extent practicable.

In some of the unincorporated areas, storm water services are provided through County Service Areas, facilities within which are maintained by the County Public Works Department. There are 19 active County Service Areas that provide storm drainage service, ranging in size of service area from 5 acres to approximately 726 acres (Stanislaus LAFCO 2016). The County also has seven Storm Drainage and Maintenance Districts, also managed by the County Public Works Department, that provide storm drainage facilities. In other, less populated areas, facilities are less formalized, characterized by open roadside drainage ditches and natural channels and the use of field percolation. Most of these facilities are not subject to the NPDES program.

Except at urban area parks, storm drainage systems in County parks are informal; runoff either percolates into soils locally or is directed to natural drainages.

Solid Waste

Solid waste collection service is provided throughout Stanislaus County through franchise agreements between the counties and private solid waste companies. In unincorporated areas of the county, three companies provide such service: Bertolotti Disposal, Gilton Solid Waste, and Turlock Scavenger. Cities within the county have separate franchise agreements.

The Stanislaus County Department of Environmental Resources operates the Fink Road Sanitary Landfill in the southwestern part of Stanislaus County – the sole open and permitted landfill in

Stanislaus County. The Fink Road facility is a Class III landfill for non-hazardous municipal solid waste. Along with waste from unincorporated areas, the Fink Road Sanitary Landfill accepts solid waste from the incorporated cities in the county and the general public. The landfill, permitted through 2023, has a permitted capacity of 14.6 million cubic yards, with a remaining capacity of 5.3 million cubic yards as of April 2015 (Stanislaus County 2016b).

Energy Systems

Electricity in Stanislaus County is provided through transmission networks owned by PG&E and several smaller utilities, including MID and TID. Principal elements of the network include 100-400 kV transmission lines which parallel I-5 along the west side of the Valley, a pair of approximately 100-kV transmission lines along the east side of the Valley, and the California-Oregon Transmission Project feeding the Tracy Substation, operated by the Western Area Power Administration.

MID serves approximately 122,000 customers in a service area of approximately 168 square miles in Stanislaus County and the Mountain House community in San Joaquin County. The MID system includes approximately 900 miles of distribution line and 200 miles of transmission line. TID provides electrical service to approximately 101,000 customers in a service area of 662 square miles in Stanislaus, Merced, Tuolumne, and Mariposa Counties. TID's system includes approximately 2,235 miles of distribution line and 389 miles of transmission line (TID 2015). PG&E is the principal electrical service provider outside of the service areas of MID and TID.

Centralized natural gas service is available in most of the urbanized portions of Stanislaus County from PG&E, the only provider of such service. Interregional gas mains are located along the SR 99 corridor, and branch lines extend to and through the cities, with service pipelines located primarily within city streets. Propane service is available in areas not served by centralized natural gas systems. These services are provided by private companies, serving landowners and businesses that have on-site storage tanks.

The Central Valley is a source of gas and oil resources, as well as a corridor for pipeline transportation of those resources. PG&E and Stanpac gas transmission lines run northwest-southeast through Stanislaus County, following the Interstate 5 and SR 99 alignments, with numerous branches providing avenues of service or gathering. Gas distribution lines are located throughout the urbanized areas of the county. A Sierra Pacific Pipeline Company petroleum products pipeline is located along the SR 99 corridor.

Communications Systems

Telephone service is provided by regulated utilities, the largest of which is AT&T, which provides local telephone service to most of Stanislaus County. Wireless telephone service is available throughout most of the county through AT&T and other providers. Cable television is available in urban areas under a franchise agreement between the service provider and the municipality. Internet access is available in urban areas and in much of the rural areas through private companies.

Significance Thresholds

According to Appendix G of the CEQA Guidelines, a project may have a significant impact on the environment related to utilities and service systems if it would:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board,
- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects,
- Require or result in the construction of storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects,
- Require new or expanded water supply entitlements,
- Result in a determination by the wastewater treatment provider that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments,
- Be served by a landfill with insufficient permitted capacity, or
- Not comply with federal, state, and local statutes and regulations related to solid waste.

Although not stated in CEQA Guidelines Appendix G, for the purposes of this analysis, the Parks Master Plan is considered to have a significant impact on the environment if it would have a direct physical impact on existing energy and communications facilities.

Impact UTIL-1: Wastewater Services and Facilities

Improvements proposed under the Parks Master Plan and continuing use of the existing parks would involve small incremental increases in demand for wastewater collection or treatment. The Master Plan includes recommendations that would address these needs where anticipated. At La Grange and Modesto Reservoir Regional Parks, additional vaulted restrooms are proposed. These restrooms do not require connection to sewer lines, so no added or extended sewer lines would be required. New restrooms are proposed at Frank Raines Regional Park, and restroom/shower facilities compliant with the Americans with Disabilities Act (ADA) would be constructed at Woodward Reservoir Regional Park. These facilities may in the future be served by wastewater collection systems, but in the near term would have their own septic systems.

A planned new entertainment venue and festival grounds at Woodward would draw as many as thousands of attendees during scheduled events, which would involve substantial new wastewater demands. In the near term, meeting these needs would be the responsibility of event promoters and is expected to involve the use of portable facilities, which would be placed for the purposes of each event and serviced by contractors. Potential wastewater demands generated by expanded use of this area would be met by event promoters, and the potential effect of these improvements would be less than significant.

Over time, County Parks plans development of wastewater facilities designed to accommodate the large public events planned for the northside area; facilities may include the construction of vault toilets, on-site treatment facilities or a new wastewater treatment facility. These potential facilities are being considered in a separate CEQA environmental analysis of the Woodward northside project and are not addressed in this PEIR.

At Hatch Park in Keyes, a restroom that would be ADA-compliant would be constructed. The park is within the Keyes CSD, which provides wastewater service to the community. No extension of existing sewer lines or need for increased capacity of wastewater treatment is anticipated. Restrooms at Bellenita Park, Bonita Park, Empire Community Park, and Parklawn Park are proposed for renovation to be ADA-compliant, but these improvements would have no impact on existing wastewater collection and treatment. An ADA-accessible restroom/shower facility is proposed for Kiwanis Park adjacent to La Grange Regional Park. As with the proposed facilities at Woodward Reservoir, this facility is expected to use a septic system.

Mitigation Measure GEO-3, described in Chapter 9.0, Geology, Soils, and Mineral Resources, would require a soil suitability analysis for any proposed septic systems, and an alternative method of wastewater disposal if soils are determined to be unsuitable. In addition, mitigation described below would reduce impacts on wastewater systems to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures:

UTIL-1: The County shall design any improvements requiring wastewater treatment facilities to incorporate all applicable requirements of the County Environmental Resources Department.

Significance After Mitigation: Less than significant

Impact UTIL-2: Water Services and Facilities

Master Plan park improvements would lead to incremental increases in park use and corresponding increases in potable water demand.

Some improvements proposed under the Parks Master Plan would involve potable water supply. The day use and campsite areas of Frank Raines Regional Park would be supplied with potable water. Camper/recreational vehicle hookup campsites with water would be added at La Grange Regional Park. Potable water would be brought in at campsites in Modesto Reservoir, including the drilling of a new well, and a new well is proposed for Woodward Reservoir. No significant water improvements are planned for the community/neighborhood parks, other than drinking fountains at proposed dog parks. As discussed in Chapter 12.0, Hydrology and Water Quality, proposed improvement may place small and less than significant demands on existing groundwater and surface water supplies.

The new entertainment venue and festival grounds at Woodward Reservoir would involve event attendance in the thousands and corresponding increases in potable water demands. In the near term, provision of adequate water supply would be the responsibility of event promoters and can be expected to involve imported supplies and dispensing facilities. These facilities would be installed

as required to service each event. AS water demands would be met by event promoters, and the potential effect on potable water supply would be less than significant.

Over time, County Parks plans development of new potable water facilities to serve the needs of large public events. The need for and nature of these potential facilities are being considered in a separate CEQA environmental analysis of the Woodward northside project and are not addressed in this PEIR.

The Parks Master Plan is not likely to have significant effects on existing water systems of any kiund. Underground work, if any, would be coordinated with the agencies or utilities with jurisdiction to avoid effects on other utilities. USA would be notified of proposed excavation work so that locations of existing utilities can be marked to prevent accidental damage. The project would not involve significant effects related to potable water systems.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact UTIL-3: Stormwater Services and Facilities

Chapter 12.0, Hydrology and Water Quality, discusses the potential impact that projects implemented as part of the Parks Master Plan would have on storm water drainage. Some projects propose the installation of relatively small areas of pavement or other impervious surfaces. Improvements to stormwater infrastructure are proposed for Frank Raines Regional Park, but no similar improvements of significance are proposed at other parks and recreational facilities. The Parks Master Plan is not likely to have significant effects on runoff, storm drains or basins.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact UTIL-4: Solid Waste

Some improvements proposed under the Parks Master Plan include the placement of waste receptacles, particularly at fishing access points. Solid waste at parks and recreational facilities would be collected and disposed by the company whose franchise agreement covers the location of the individual facility. Solid waste associated with construction work would be disposed of in accordance with County requirements. Impacts on solid waste services would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact UTIL-5: Energy and Communication Systems

Some improvements related to energy are proposed under the Parks Master Plan. Additional camper/recreational vehicle campsites proposed for La Grange Regional Park would have electrical hookups. Electrical lighting is proposed at Mud Hen Cove in Modesto Reservoir Regional Park, and an underground power source is proposed at Woodward Reservoir Regional Park. Night lighting

would be upgraded to State and federal standards at Courthouse Lawn Park, the Empire Tot Lot, and Oregon Drive Park.

Level of Significance: Less than significant

Mitigation Measures: None required

18.0 CUMULATIVE IMPACTS

CEQA requires that EIRs discuss cumulative impacts when they are significant. Cumulative impacts are defined by CEQA Guidelines §15355 as "... two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." The cumulative effects analysis must be based on either 1) a list of past, present and reasonably anticipated future projects producing related or cumulative impacts, or 2) a summary of projections contained in an adopted general plan or related planning document that is designed to evaluate regional or area-wide conditions.

This PEIR identifies the potential cumulative impacts of all of its anticipated park improvement activities under the proposed Parks Master Plan, as defined in more detail in Chapter 3.0, Project Description. As a result, this document describes the cumulative effects of "the project", consistent with the CEQA requirements outlined above. In a larger sense, the PEIR also considers the cumulative impacts of development activity in the County as a whole, based on a summary of projections contained in the recently (2016) updated Stanislaus County General Plan.

The potential contribution of the Parks Master Plan to cumulative environmental impacts is relatively small and not cumulatively considerable under CEQA. As described in Chapters 4.0 through 17.0, the potential environmental impacts of planned park improvement are in general limited in intensity and geographically localized. Also, as discussed under growth-inducing impacts in Chapter 20.0, Other CEQA Issues, park construction and improvement generally occurs in response to development rather than induce development on its own.

18.1 Aesthetics and Visual Resources

Potential cumulative aesthetic/visual resource impacts of the Parks Master Plan would be related to the accumulated effects of all proposed activities on the County in combination with other activities proposed by Countywide plans. The analysis presented in this chapter indicates that the overall aesthetic/visual resource effect of Parks Master Plan activities on the County would be less than significant. The total potential physical disturbance from all planned activities would not involve a considerable amount of land area, and in most cases, projects proposed in the Parks Master Plan would improve the visual landscape, which would be considered a beneficial impact both locally and cumulatively.

As described in PEIR Chapter 4.0, planned Parks Master Plan activities could result in localized visual effects. To the degree that these potential localized effects are juxtaposed with other development, a cumulative effect could occur. However, as noted above, most projects are expected to have a beneficial impact on aesthetics. It is not expected that planned projects in the Parks Master Plan would contribute considerably to cumulative adverse impacts to aesthetics and visual resources.

Future park improvement projects implemented in accordance with the Parks Master Plan would be subject to environmental review under CEQA. These projects may be considered exempt under CEQA, or their potential environmental effects may be addressed in this PEIR and would be subject to the PEIR's prescribed mitigation measures, which would in most cases reduce the potential effect of the project to a less than significant level. If the project would involve potentially significant

environmental effects, including cumulative aesthetic effects, these effects would be identified during that process and mitigated through application of additional mitigation measures. If these effects cannot be reduced to a less than significant level, then separate CEQA consideration would be require. In any event, the park improvement actions addressed by this PEIR would not involve a cumulatively considerable contribution to a significant cumulative effect.

The Stanislaus County General Plan EIR did not identify significant cumulative effect in this issue area. The Master Plan would not result in a significant cumulative impact in this issue area. Therefore, the project would not make a considerable contribution to a significant cumulative effect.

Level of Significance: Less than significant

Mitigation Measures: None required

18.2 Agriculture and Forestry Resources

As described in PEIR Chapter 5.0, park improvement activities would not result in significant agricultural resource effects. The PEIR would not result in any significant conversion of agricultural land or change the amount of agricultural land in Stanislaus County; the predominant land use in the County would remain agricultural. As discussed in Chapter 13.0, and 20.0, park improvement activities are not expected to be a significant factor affecting future development. Thus, the Master Plan would not make a cumulatively considerable direct or indirect contribution to agricultural resource impacts in the County.

Level of Significance: Less than significant

Mitigation Measures: None required

The Stanislaus County General Plan EIR discussed concerns related to agricultural land conversion, noting that the County had adopted an Agricultural Element of the General Plan and that conversion of agricultural land to residential use is also confined by Measure E, which requires voter approval of agricultural land conversion projects. The analysis also discussed agricultural land conversion that would result from approved development in the Salida area. The EIR did not identify a considerable contribution of General Plan adoption to agricultural land conversion impacts. The Master Plan would also not result in a considerable contribution to a significant cumulative impact in this issue area.

18.3 Air Quality

Master Plan implementation is not expected to result in any significant air quality impacts or cumulative air quality impacts. The only potential impacts of Master Plan implementation would be associated with construction of individual projects. While two or more improvement projects might run concurrently, the individual projects would not generate locally significant air quality impacts with implementation of mitigation measures described in PEIR Chapter 6.0. With even minimal geographic separation, dispersion of pollutants would eliminate the potential for cumulative impact arising from simultaneous construction of more than one park improvement project.

Construction and operation of ESI Program projects would make incremental contributions to regional non-attainment conditions for both ozone and particulate matter. However, these contributions would be less than significant on a cumulative level.

The Stanislaus County General Plan EIR discussed the cumulative air quality effects of adoption of the updated general plan, finding those impacts to be significant and unavoidable. The Master Plan's contribution to this significant cumulative impact would be incidental and therefore not considerable.

Level of Significance: Less than significant

Mitigation Measures: None required

18.4 Biological Resources

Potential biological impacts associated with planned park improvements would be localized and generally avoidable. Where impacts cannot be avoided, proposed mitigation measures would compensate for potential losses. As a result of the small scale of potential impact, the dispersion of potential impact over a large area, and the avoidance or minimization measures that would be required for park improvement projects if needed, no significant cumulative impact on biological resources is anticipated.

The Stanislaus County General Plan EIR discussed the cumulative effects of General Plan adoption on wildlife and fish movement corridors and identified the effect of adopting the General Plan on this significant cumulative impact as cumulatively considerable. This PEIR does not identify any effects on fish or wildlife movement as the Master Plan would not involve any substantial conversion of fish or wildlife habitat that serves movement corridor functions. As a result, the Master Plan would not involve a considerable contribution to this significant cumulative impact.

Level of Significance: Less than significant

Mitigation Measures: None required

18.5 Cultural Resources

Recreational improvements would involve occasional potential conflicts with cultural resources. However, cultural resource impacts, including impacts on tribal cultural resources, are generally localized and do not contribute to an identified cumulative effect unless potential impacts are essentially unregulated. Mitigation measures incorporated in this document would result in either avoidance or reduction of any significant cultural resource impact by a project, which in turn would reduce the potential cumulative impacts on cultural resources. Similarly, recent tribal consultation requirements under California AB 52 provide Native American tribes with increasing opportunities to interact with local agencies about potential impacts on tribal cultural resources and their prevention. Consequently, Master Plan implementation would not result in a significant cumulative cultural resources impact.

The Stanislaus County General Plan EIR did not identify significant cumulative effect in this issue area. The Master Plan would not result in a significant cumulative impact in this issue area. Therefore, the project would not make a considerable contribution to a significant cumulative effect.

Level of Significance: Less than significant

Mitigation Measures: None required

18.6 Geology, Soils, and Mineral Resources

Planned recreation improvements would not involve cumulative geologic or soils impacts. Such impacts are generally localized and would not contribute to any identified cumulative effect. Recreational projects would contribute slightly to urban development effects on geology and soils in the County, but due to the small size of the contribution, potential cumulative impacts on soils would be less than significant.

Cumulative mineral resource impacts could occur if recreational improvements would restrict or deny access to identified mineral resources. However, recreational improvements would occur on existing County-owned lands, which would not involve encroachment on mineral resource lands. As a result, the Master Plan would not have significant cumulative mineral resource impacts.

The Stanislaus County General Plan EIR did not identify significant cumulative effect in this issue area. The Master Plan would not result in a significant cumulative impact in this issue area. Therefore, the project would not make a considerable contribution to a significant cumulative effect.

Level of Significance: Less than significant

Mitigation Measures: None required

18.7 Greenhouse Gas Emissions

Global climate change is a distinct CEQA issue, in that while a project may generate GHG emissions, the impacts of such emissions are global. As such, the impacts of a project's GHG emissions are considered cumulative, and these potential impacts are described in PEIR Chapter 10.0.

18.8 Hazards and Hazardous Materials

Master Plan implementation would involve no widespread or significant hazards effects, other than potential Naturally-Occurring Asbestos (NOA) concerns at Frank Raines Regional Park. Where potential hazards effects occur, they would be localized and mitigated to a level that would be less than significant or addressed individually. In either case, the improvements addressed in this PEIR would not involve the potential for significant cumulative effects related to hazards.

The Stanislaus County General Plan EIR did not identify significant cumulative effect in this issue area. The Master Plan would not result in a significant cumulative impact in this issue area. Therefore, the project would not make a considerable contribution to a significant cumulative effect.

Level of Significance: Less than significant

Mitigation Measures: None required

18.9 Hydrology and Water Quality

The potential water resources impacts of the Master Plan would be localized and incidental. The project would not involve any substantial or cumulative effects on surface water resources. As

noted above, improvement projects would comply with State requirements pertaining to construction activities under the NPDES program, and also with applicable storm water management programs. Compliance with these programs would reduce the cumulative impacts on water quality to a less than significant level.

Master Plan implementation would involve construction of a few small new wells distributed around the County. The project would not involve any substantial new groundwater demands. Due to the requirements of the County's Groundwater Ordinance, no significant cumulative effect is anticipated.

The Stanislaus County General Plan EIR discusses the cumulative effect of the General Plan on groundwater demand and supply, identifying the General Plan's contribution as cumulatively considerable. The Master Plan would involve a very small contribution to groundwater demand, which would be a part of the overall identified increase in demand but not cumulatively considerable.

Level of Significance: Less than significant

Mitigation Measures: None required

18.10 Land Use, Population, and Housing

Planned park improvements would not result in any substantial change in lande use or significant land use effects. Effects, where they occur at all, would be localized and would not affect the overall land use pattern in the County.

The largest land use change associated with the Master Plan would be the opening of approximately 500 acres at Frank Raines Regional Park to OHV use. This existing open space area would remain in open space use, although more intensively utilized in the future than today. This, however, would be an isolated change as described in the PEIR and would not combine with other identified environmental effects.

The effects of the Parks Master Plan projects on population or housing would not be significant individually or cumulatively. As described elsewhere in the PEIR, the plan is not expected to have either a direct or indirect impact on population or housing.

The Stanislaus County General Plan EIR did not identify significant cumulative effect in this issue area. The Master Plan would not result in a significant cumulative impact in this issue area. Therefore, the project would not make a considerable contribution to a significant cumulative effect.

Level of Significance: Less than significant

Mitigation Measures: None required

18.11 Noise

The Stanislaus County General Plan EIR discussed the potential noise effects of General Plan adoption on traffic noise, identifying contributions to a significant cumulative impact – traffic noise - that were in one case cumulatively considerable, and not considerable in another. Master Plan implementation would not result in any substantial contribution to predicted future traffic in the County and would therefore not result in a considerable contribution to significant noise effects.

The large new entertainment venue at Woodward Reservoir would involve significant increases in noise during scheduled public events with potential impacts on surrounding lands, as discussed in Chapter14.0 Noise. Even these noise impacts, with or without the mitigation measures prescribed in Chapter 14.0, would be localized and not result in cumulative impacts in conjunction with other recreational uses.

Significant noise associated with Master Plan implementation would be minor, localized and short-term; noise effects of any consequence would be associated with construction and maintenance activities. Even concurrent projects would not result in cumulative noise effects, and recreational activities would not contribute to any known regional noise concern. As noted above, most facility operations are not expected to generate any more noise than they produce today through combined recreational activities. No significant cumulative noise impacts are anticipated.

Level of Significance: Less than significant

Mitigation Measures: None required

18.12 Public Services

Proposed recreational improvements would not result in any known effect on existing utilities or services and no known cumulative impact. The purpose of the Master Plan is to guide a number of recreational improvements at existing park facilities. These improvements would result in an overall cumulative recreation benefit.

The Stanislaus County General Plan EIR discussed the cumulative effects of General Plan adoption on park demand and parkland availability, as defined by consistency with applicable parkland/population ratios. Deficiencies were noted in most of the incorporated cities as well as in the unincorporated area. General Plan adoption would result in a cumulatively considerable contribution to parkland deficiencies. The Master Plan would not contribute to the identified significant cumulative impact in this issue area, but would rather contribute to mitigation of the identified deficiencies. The Master Plan provides for the development of an estimated 200 acres of additional neighborhood parks during the implementation period. As a result, the project would not make any considerable contribution to a significant cumulative effect but rather would diminish the impact that would occur in the absence of the Master Plan.

Level of Significance: Less than significant

Mitigation Measures: None required

18.13 Transportation

Potential effects of planned improvements on transportation facilities and systems would be non-existent, incidental, localized or readily avoided. The program would have a minimal cumulative impact on traffic volumes in the County. The program would result in no significant cumulative effect on transportation facilities.

The Stanislaus County General Plan EIR identifies the traffic impacts of planned development under the General Plan as involving a less-than-significant effect on local roads but a cumulatively considerable contribution to predicted traffic on the State highway system. As discussed in the PEIR, the Master Plan would result in incidental contributions to predicted future traffic; these

contributions would not cause impacts on local roads to be significant or involve a considerable contribution to predicted significant impacts on the State highway system.

Level of Significance: Less than significant

Mitigation Measures: None required

18.14 Utilities and Service Systems

Planned recreation improvements would result in no known substantial effect on existing utilities and no known cumulative impact. Implementation of the Master Plan would involve minor improvements to water, wastewater, drainage, electrical and other utilities as required to support planned park improvements.

The Stanislaus County General Plan EIR did not identify significant cumulative effect in this issue area. The Master Plan would not result in a significant cumulative impact in this issue area. Therefore, the project would not make a considerable contribution to a significant cumulative effect.

Level of Significance: Less than significant

Mitigation Measures: None required

18.15 General Plan EIR Incorporated by Reference

As discussed above, many of the potential cumulative effects of the Parks Master Plan are defined in an even more programmatic analysis: the EIR prepared by Stanislaus County in its adoption of the updated General Plan in 2016. The General Plan EIR analysis is considered in this chapter and is incorporated by reference below.

> ICF International. Draft Stanislaus County General Plan and Airport Land Use Compatibility Plan Update, Draft Program Environmental Impact Report. April 2016.
>
> ICF International. Final Stanislaus County General Plan and Airport Land Use Compatibility Plan Update, Draft Program Environmental Impact Report. July 2016.

The summary of the General Plan EIR is shown in Appendix C. Copies of the EIR are available for review on the County's web site at: http://www.stancounty.com/planning/pl/general-plan.shtm.

19.0 ALTERNATIVES

CEQA Guidelines §15126.6(a) requires that an EIR "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." It further provides that the EIR "consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation." There are no set rules governing the nature and scope of the alternatives to be discussed, other than the "rule of reason." Alternatives that are infeasible are not required to be discussed in an EIR.

According to CEQA Guidelines §15126.6(c), the EIR should briefly describe the rationale for selecting the alternatives to be discussed. The EIR should also identify any alternatives that were considered by the Lead Agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the determination. County Parks has not identified any alternatives that were rejected as infeasible. The County did, however, consider a number of variations in the provisions of the proposed Master Plan, which are discussed in Section 19.1 below.

This analysis of alternatives to the proposed Parks Master Plan reflects the fact that an existing Parks Master Plan is already in effect, the Plan adopted in 1999, and will remain in effect until superseded by the proposed Master Plan. The 1999 Master Plan includes many of the same elements as the proposed Master Plan, which are updated to reflect current conditions, but the 1999 Plan also includes recommendations that are not carried forward to the proposed Master Plan. Relevant variations are discussed in Section 19.1.

This PEIR discusses only one true alternative to the proposed Master Plan: the No Project Alternative, which is discussed in Section 19.2. After consideration, no other alternatives were deemed feasible in terms of fulfilling the purpose of the Department of Parks and Recreation, which is to anticipate and meet the park and recreation needs of the County. The County's consideration of park and recreation options is discussed in Section 19.1 below. CEQA Guidelines 15126.6€ requires evaluation of a No Project Alternative.

19.1 COUNTY CONSIDERATION OF ALTERNATIVES AND ALTERNATIVES NOT ANALYZED IN DETAIL

The proposed Parks Master Plan is the result of a year of intensive planning work by the County's consultants to document the County's inventory of parks and recreation sites, to assess future recreation needs, consider the range of options for meeting those needs and make recommendations for future action addressing the various options and limiting factors. Recreation needs were assessed based on a new survey of the preferences of the current County population as well as on applicable recreation planning standards and anticipated population growth and demographic changes.

During the planning process, County staff and consultants considered a large number of options for meeting known recreation needs (for example, acres of parkland needed to serve the projected population, associated recreational equipment and improvements, access and parking) and the local

recreation preferences communicated by County residents. Among the options considered were the following:

No new acquisition of neighborhood park lands

Planned acquisition and development of a new 250-acre regional park in the southwest portion of the County

After detailed analysis, County staff and consultants concluded that the proposed Master Plan best reflects the recreation needs County as identified in the Needs Assessment portion of the Plan as well as the County's understanding of needs as reflected in its operational understanding of the park system and its users. While some variations in the provisions of the proposed Master Plan may, in the end, be judged to better fit the County's needs, these variations are not expected to be substantial, or to constitute alternatives to the proposed Master Plan that warrant individual consideration.

19.2 NO PROJECT ALTERNATIVE

For the purposes of this PEIR, the No Project Alternative is defined as no adoption of the updated Parks Master Plan. The 1999 Parks Master Plan would be assumed to remain in effect at least until the end of its planning horizon (2018) is reached; no other plan would be adopted. It is further assumed that existing conditions at the County parks and recreational facilities would remain more or less the same, with ongoing maintenance performed to prevent deterioration. No new or expanded park or recreation facilities would be constructed, and no new park-related infrastructure would be installed.

This alternative would not attain the basic objectives of the project, which are to provide recreational facilities and services consistent with desires of Stanislaus County residents, to correct existing deficiencies in park acreage, and to meet the demands of a growing population. While existing facilities would be maintained, increased maintenance costs would likely be required in order to offset the effects of increasing usage of an overburdened park system.

Under this alternative, most of the potential environmental impacts of development proposed in the updated Parks Master Plan would be avoided. These would include landscape disturbance, potential disturbance of habitat and cultural resources, air pollutant and GHG emissions from construction, discharges into surface waters, and changes in demands for fire and police protection services. Also, this alternative would avoid the consumption of energy, specifically fossil fuels, that would be required for construction activities. However, the Master Plan, with implementation of the mitigation measures outlined in this document, would not involve unavoidable significant environmental effects, nor would it involve the wasteful or inefficient use of energy.

Overall land use activity in the County would be essentially unchanged under this alternative, and the existing patterns of land development not directly connected to parks and recreation would continue.

The No Project Alternative would to some degree would place planned park improvements to County facilities in some jeopardy, as they would not be provided for in a recently-adopted plan. Jeopardy could include difficulties in obtaining project approval as well as funding from outside sources. This would involve an adverse effect on recreation.

More specifically, the No Project Alternative would eliminate planned expansion of OHV use at Frank Raines Regional Park from the Master Plan and the potential adverse effects of this planned improvement on soil erosion, possible exposure to naturally-occurring asbestos, water quality and noise. The recreational benefits of this project would also be foregone.

The No Project Alternative would also eliminate the concept of a new public entertainment venue at Woodward Reservoir Regional Park from the Master Plan. Although this change would reduce potential environmental effects of this project, recreational benefits would also be eliminated.

19.3 ALTERNATIVE SITES AND DESIGNS

As noted above, CEQA Guidelines §15126.6(a) requires that an EIR consider "alternatives to the project, or to the location of the project." The analysis of alternative locations should address feasible sites which could avoid or substantially lessen significant effects. Reasons for elimination of sites on the basis of infeasibility must be documented. Alternatives whose effects cannot be reasonably ascertained, and whose implementation is remote and speculative, need not be addressed.

Alternative sites and designs for most of the proposed improvements would be infeasible as they are tied directly to the County's existing park facilities, which could not be feasibly relocated. The various proposed improvements, including a number of improvements at Woodward Reservoir and Modesto Reservoir Regional Parks are directly related to these sites and the popularity and high levels of public use associated with these sites. "Alternative sites" is not considered a "reasonable alternative" to the proposed project.

There could conceivably exist location alternatives to the proposed site for OHV expansion at Frank Raines Regional Park, including other nearby or surrounding lands or other locations altogether. Other sites would, however, involve site acquisition costs as the existing expansion site is already owned by the County. Alternative sites would involve a range of potential environmental effects that would need to be evaluated in detail before a site selection could be made, and for any site but the existing expansion area, the concerns of adjacent and nearby landowners would likely be prohibitive. Another location option would be expansion of La Grange Regional Park onto surrounding lands. However, at least from aerial photo review, these lands appear to be environmentally sensitive, and relocation of OHV use to this area could involve significant environmental effects equal to or greater than the proposed expansion.

19.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

As the No Project Alternative would eliminate or avoid all potential environmental effects associated with the project, it might be considered the Environmentally Superior Alternative. However, selection of the No Project Alternative would result in adverse effects on the County's ability to meet projected recreation needs. Furthermore, the application of mitigation measures specified in this document would reduce potential environmental effects of the Master Plan to a less than significant level. As result, the proposed is not substantially distinguishable from the No Project Alternative on the basis of environmental impacts and can therefore be considered the Environmentally Superior Alternative on at least an equal basis with the No Project Alternative.

20.0 OTHER CEQA ISSUES

20.1 GROWTH-INDUCING IMPACTS

The CEQA Guidelines require an EIR to discuss the potential growth-inducing impacts of a project or program. CEQA Guidelines §15126.2(d) defines growth-inducing impacts as "ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." It further notes, "It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment."

Growth can be induced in a variety of ways. New development can create demands for other types of development. For example, a new large industrial development that provides numerous jobs may attract new residents to an area, creating a demand for more housing. The same project in an area with a readily-available supply of labor may have no growth-inducing effect at all. Development of significant new amenities, such as public attractions and recreational facilities, can spur development of new housing for people wishing to take advantage of them and commercial development to serve new populations. In a more general sense, new urban development in rural areas may induce growth by providing both a nucleus and a rationale for broader change in land use and economic incentives for conversion of nearby agricultural lands.

Growth may also be induced through the removal of obstacles to development. One potential obstacle is the lack of utilities or infrastructure to support development. The provision of new utilities or other infrastructure that can serve development, particularly in an area that is undeveloped, may induce growth. For example, construction of new roads or domestic water or wastewater systems with the capacity to serve unserved areas may facilitate development that would not otherwise have occurred. Expansion of other utility systems, like electrical systems, can have similar effects. However, the extension of new infrastructure may or may not have a distinguishable growth-inducing effect if the location or rate of development is controlled by other more determinative factors, such as general plan designations, urban limit lines, and spheres of influence.

As discussed in Chapter 15.0, Public Services and Recreation, parks and recreational facilities in Stanislaus County are subject to gradually increasing demand in usage as a result of increased population growth. This growth would primarily be the consequence of land use decisions made by the County and by the incorporated cities; as the County Parks and Recreation Department does not grant permits and approvals to proposed development, it does not directly influence the amount of development. The provision of recreational services will occur in response to future growth and demand in Stanislaus County and the cities in response to these changes.

Master Plan implementation is expected to result in incremental increases in the attractiveness and usability of the County's park system. The most extensive recreational improvements would be to two of the regional parks: 1) expansion of the Frank Raines OHV use areas and 2) construction of a new entertainment venue at Woodward Reservoir. These improvements would be oriented to increased visitation from both within and outside the County but would not be expected to result in

any substantial residential or other growth within the County. Implementation of the Parks Master Plan is not expected to induce growth to any measurable degree.

20.2 IRREVERSIBLE ENVIRONMENTAL COMMITMENTS

CEQA Guidelines §15126(c) states that an EIR shall discuss significant irreversible environmental changes which would be involved in a proposed project should it be implemented. Guidance on the discussion of irreversible changes is provided in CEQA Guidelines §15126.2(c), which states in part:

> "Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified."

Improvement of the county's existing park facilities would, in general, involve no significant irreversible environmental changes. Overall, these improvements would involve generally minor land disturbance and construction of small facilities within areas already committed to long-term recreational use. At these existing recreational sites, no new resources would be subject to long-term commitments.

The proposed opening of additional OHV terrain at Frank Raines Regional Park would involve semi-permanent commitment of these undeveloped lands to continuing OHV use, vegetation disturbance and soil erosion. Should OHV activity be discontinued in the future, the area would gradually revegetate but evidence of OHV use would remain apparent for a period of years.

Development of the new entertainment venue at Woodward Reservoir would involve substantial land disturbance required to prepare the area for intensive public use. As the County invests in improvements including an amphitheater, roads, campgrounds, water and wastewater facilities and electrical service, the area would be increasingly be committed to active recreational use that would at some point become permanent and essentially irreversible.

20.3 ENERGY CONSUMPTION AND CONSERVATION

CEQA requires that an EIR includes a discussion of the potential energy impacts of a proposed project, with particular emphasis on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy (Public Resources Code §21100(b)(3)). Appendix F of the CEQA Guidelines provides guidance for a discussion of energy impacts. Subjects may include identifying wasteful, inefficient and unnecessary consumption of energy during project construction, operation, maintenance and/or removal that cannot be feasibly mitigated, and the preemption of future energy development or future energy conservation.

Park improvements and new facility construction would involve fuel consumption and use of other non-renewable resources. Construction equipment used for such improvements typically runs on diesel fuel or gasoline. The same fuels typically are used for vehicles that transport equipment and workers to and from a construction site. The number of workers and amount of equipment varies by

the type of project, so the amount of fuel consumed by project construction also varies. However, construction-related fuel consumption would be finite, short-term and consistent with construction activities of a similar character. This energy use would not be considered wasteful, inefficient or unnecessary.

Electricity may be used for equipment operation during construction activities. It is expected that more electrical construction equipment would be used in the future, as it would generate fewer air pollutant and GHG emissions. This electrical consumption would be consistent with construction activities of a similar character; therefore, the use of electricity in construction activities would not be considered wasteful, inefficient or unnecessary, especially since fossil fuel consumption would be reduced. Moreover, as discussed below, over time a greater share of electricity would be provided from renewable energy sources, so less fossil fuel consumption would occur to generate electricity.

After construction work is completed, improved parks and recreational facilities would require occasional visits for routine maintenance or for emergency repairs. Equipment and vehicles used in such activities also typically run on diesel fuel or gasoline. Fuel consumption associated with such activities would be consistent with typical operation and maintenance activities and is not considered wasteful, inefficient or unnecessary. The facilities constructed under the Parks Master Plan would generate limited traffic associated with maintenance or repairs.

As mentioned in Chapter 18.0, Transportation, new and expanded parks and recreational facilities are likely to generate increased traffic to these sites. It is unclear if this traffic would be drawn from other facilities both inside and outside the County. If this is the case, then individual project development would not be appreciably increase overall traffic. Moreover, as discussed in Chapter 15.0, Population and Housing, population in the County is anticipated to increase, which also would increase overall traffic volumes in the County. The impacts of development under the Parks Master Plan on traffic volumes, with associated fuel consumption, is not quantified but is expected to be minimal. As previously discussed, park and recreational development generally occurs in response to changes in these factors, rather than acting as a driver for such changes.

Electricity would be used for some facility operations, mainly those requiring lighting. As discussed in Chapter 10.0, Greenhouse Gas Emissions, the State's current Renewable Portfolio Standard requires 33% of retail electricity to be generated by renewable sources by 2020, and SB 350 would require 50% of electricity to come from renewable sources by 2030. The County also relies on hydroelectric power generated by MID and TID at Don Pedro Dam and other sources, although these are not counted towards RPS targets. The increased use of these electricity sources would mean decreased consumption of fossil fuels (i.e., coal, oil, natural gas) needed to generate electricity for park and recreational facility operations.

Moreover, MID, one of the major electricity suppliers in the County, is pursuing a system improvement program that would improve the reliability of and more efficiently deliver electrical service, thereby reducing energy waste. PG&E, another major supplier, also has plans to pursue projects to improve its electrical transmission lines, one goal of which is to improve reliability. The third major supplier, TID, currently is pursuing projects to improve the reliability and operational efficiency of its system, such as construction of a new substation and the installation of "smart" meters. It is anticipated that all three suppliers will continue to install improvements that will increase reliability and more efficiently deliver electricity to existing and future customers.

In summary, the Parks Master Plan would not lead to the consumption of energy in a manner that is wasteful, inefficient or unnecessary. The combination of more reliable and efficient delivery of

electricity and increased generation from non-fossil fuel sources would reduce both energy waste and fossil fuel consumption.

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21.3 WEBSITES

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California State University Stanislaus. https://www.csustan.edu/

Envirostor. https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=modesto+california

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Stanislaus County Parks and Recreation, Fees, Rules and Regulations. http://www.stancounty.com/parks/rules-regulation.shtm

Stanislaus County Police Activities League. http://www.stancopal.org/

Stanislaus County Public Works Department. https://stancounty.com/publicworks/storm

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