4 ENVIRONMENTAL ANALYSIS

4.1 INTRODUCTION TO THE ENVIRONMENTAL ANALYSIS

4.1.1 PURPOSE OF THE EIR

This section of the General Plan for Bidwell-Sacramento River State Park constitutes an environmental impact report (EIR), as required by Public Resources Code Sections 5002.2 and 21000 et seq., and is subject to approval by the California Parks and Recreation Commission (Commission). The Commission has sole authority for the Plan's approval and adoption. Following certification of the EIR and approval of the Plan, the Department will prepare facility development and resource management proposals (or comprehensive plans) that implement provisions of the General Plan as staff and funding allow. Future projects, based on the provisions in this General Plan, may be subject to permitting requirements and approval by other public agencies that have resource protection authority over the activities in the project area.

4.1.2 FOCUS OF THE EIR

The Notice of Preparation for this General Plan was circulated to the appropriate federal, state, and local planning agencies. Based on comments received during the NOP comment period and the planning process to date, this Draft EIR was prepared to analyze potential environmental impacts that may result from the implementation of the management goals and guidelines, as well as area-specific management and facility prescriptions, that constitute the proposed General Plan. Environmental resources or topics that would not likely be affected by the General Plan are briefly addressed in Section 4.5, Environmental Topics Eliminated from Further Analysis. Those topics or issues that warrant further environmental analysis are analyzed in detail in Section 4.6, Environmental Impacts.

4.1.3 SUBSEQUENT ENVIRONMENTAL REVIEW PROCESS

The tiering process of environmental review is incorporated into this EIR. Tiering in an EIR, particularly for a program-level project such as a general plan, allows agencies to consider broad environmental issues at the general planning stage. These environmental considerations will be analyzed in greater detail in subsequent environmental documents at the time specific development projects and management programs are proposed. It should be noted that subsequent environmental documents incorporate, by reference, the general analysis from the program-level EIR included here and will concentrate on the issues specific to the characteristics of subsequent projects (Public Resources Code §21093; California Environmental Quality Act (CEQA) Guidelines §15152). This EIR represents the first tier of environmental review.

Future second-tier environmental review will be based on more detailed information on proposed actions, including facility size, location, and capacity. Therefore, the environmental analysis will be more specific and focused, identifying any significant environmental impacts

and mitigation measures that are applicable to future projects. In addition, future actions will also be evaluated to determine if they are consistent with the proposed General Plan.

Because future environmental review will be more specific and focused, and the characteristics of future projects will be better defined, it will be possible to develop appropriate project-level mitigation measures that address potentially significant adverse impacts to the environment. Developing appropriate mitigation measures generally requires resource specialists to evaluate the scope of work, identify specific causes of impacts, and to specify measures that avoid or maintain impacts at a less-than-significant level. This information will be available once specific projects or actions are defined.

4.1.4 Contents of the EIR

The program EIR contained in this General Plan includes the following sections:

Introduction to the Environmental Analysis: This section includes a brief overview of the environmental review process, legal requirements, and approach to the environmental analysis.

EIR Summary: The EIR summary represents a summary of environmental impacts associated with the proposed General Plan and proposed mitigation measures to address the impacts identified, an overview of the environmental effects of alternatives considered to the preferred General Plan, and a description of any areas of controversy and/or issues that need to be resolved.

Project Description: This section provides an overview of the proposed General Plan, which is the focus of the program EIR.

Environmental Setting: This section notes the fact that the existing (baseline) conditions for environmental issues or resources that may be potentially affected by implementation of the General Plan are addressed in Chapter 2, Existing Conditions, which represents the environmental setting for this EIR.

Environmental Topics Eliminated from Further Consideration: This section describes those environmental topics that did not warrant detailed environmental analysis and the supporting rationale.

Environmental Impact Analysis: This section describes the level of environmental impact associated with implementation of the proposed General Plan, including goals and guidelines that address effects on the environment.

Other CEQA Considerations: This section contains information on other CEQA-mandated topics, including cumulative impacts, growth-inducing impacts, significant and unavoidable impacts, and significant irreversible environmental changes.

Alternatives to the Proposed Project: The alternatives analysis describes the various alternatives to the proposed General Plan (including the No Project Alternative) that are considered in this EIR and the associated environmental effects of these alternatives relative to the proposed project.

4.2 EIR Summary

4.2.1 Summary of Impacts and Mitigation

For the most part, implementation of the General Plan is not expected to result in significant impacts on the environment. Implementation of the goals and guidelines contained in Chapter 3, in conjunction with compliance with federal, state, and local laws and regulations, avoids potential significant environmental effects or maintains them at a less-than-significant levels. Additional mitigation measures, therefore, are not necessary.

Conversion of designated Important Farmland to non-agricultural uses is the one exception. Several of the proposed property additions are designated as Important Farmland, and if they are added to the Park, they would be removed from agricultural production. This represents a significant environmental impact, and because no feasible mitigation measures are available, it is considered significant and unavoidable.

4.2.2 Summary of Alternatives Considered

Several alternatives were considered during the planning process and an additional alternative was developed as part of the development of this EIR. The three planning alternatives represent a range of management treatments (i.e., minimum, moderate, and maximum) for natural and recreational resources at the Park. Features of each of these alternatives were used to develop the preferred General Plan alternative, which is the focus of this EIR. An additional alternative, which represents maximum restoration of the Park, is also considered in this EIR. This alternative is solely aimed at promoting ecological diversity and health of the Park, providing only limited recreation opportunities. And, as required by CEQA, the No Project alternative has also been considered here. It was concluded that the Maximum Restoration Alternative is the environmentally superior alternative among the alternatives considered here; however, it fails to meet one of the Department's fundamental objectives-providing high-quality recreational opportunities to residents of the state. As a result, it was excluded from further consideration in the planning process.

4.2.3 Areas of Controversy and Issues to be Resolved

Generally, there have been very few areas of controversy associated with implementation of the General Plan expressed at various public meeting held during preparation of the plan. There appears to be consensus between the Department and the public that the recreational value of the Park is not being realized and that future recreational development would improve the Park. However, there are different visions of the extent of recreation development, ranging from a focus on passive recreation and minimal facilities to developed recreation that is supported by a well-planned and integrated facility system. The proposed

General Plan is intended to balance these two directions and includes goals and guidelines that promote good stewardship of the land and resources, which addresses concerns regarding development-induced impacts on the environment. Other related issues pertain to the addition of Park properties and coordination with other public lands in the region, both of which are addressed in the General Plan.

4.3 PROJECT DESCRIPTION

The Plan section of this General Plan represents the project description for this EIR (see Chapter 3). The General Plan establishes the long-range purpose and vision for Bidwell-Sacramento River State Park, outlines a set of goals and guidelines that guides future management of environmental resources, recreational opportunities and operational considerations, and includes a discussion of area-specific planning concepts that focus on facility development at the various subunits of the Park. Please refer to Chapter 3, Park Plan, for specific details on the proposed General Plan (Project), which is the focus of this EIR.

4.4 ENVIRONMENTAL SETTING

Existing conditions that characterize the Park, including descriptions of important resource values and local and regional planning efforts, are described in Chapter 2, Existing Conditions and Issues. Information presented in Chapter 2 constitutes the CEQA environmental setting description for the following topics: aesthetics, agricultural resources, air quality, biological resources, cultural resources, geology, hazards and hazardous materials, hydrology and water quality, noise, public services, traffic and transportation and utilities. Please refer to Chapter 2 for detailed information on these topics.

4.5 ENVIRONMENTAL TOPICS ELIMINATED FROM FURTHER ANALYSIS

Based on a preliminary review of the proposed project, several environmental topics do not warrant comprehensive analysis in this EIR because there is no potential for significant environmental effects resulting from the implementation of the General Plan. These topics include Land Use and Planning; Mineral Resources; Population and Housing; and Recreation. A brief description of these topics and information supporting the decision to eliminate these topics from further analysis is provided below.

4.5.1 LAND USE AND PLANNING

The Park is located in a rural area of Butte and Glenn counties, outside of any established communities; the City of Chico is located approximately 6 miles to the west of the Park. Because the Park is owned and managed by the state, it is not subject to local land use planning (e.g., county general plans or zoning). In addition, there are no federal or state land use plans applicable to the Park. Management plans are currently being developed on adjacent public lands managed by the U. S. Fish and Wildlife Service (USFWS) and California Department of Fish and Game (CDFG), but these do not directly affect Park properties. As a result, no further analysis of this topic is necessary.

4.5.2 Mineral Resources

The Park is not located within an area with known mineral resources, and as such, it is not designated as an important mineral resource area by the California Department of Conservation under the Mineral Resource Zone (MRZ) classification System. Further, the Park does not contain any energy production or mineral extraction land uses. In the project area, there have been efforts in the past to extract gravel from the river channel to minimize interference with water pumping activities downstream of the Park, but these efforts are attributed to facility maintenance rather than commodity production. As such, no significant effects to energy and mineral resources would occur and no further analysis is necessary.

4.5.3 Population and Housing

The Park primarily serves visitors from the City of Chico, located 6 miles west of the Park. However, it also represents a regional destination for particular user groups, most notably anglers that use the Park as an access point to the Sacramento River during peak fishing seasons. Based on the characteristics of the Park, it is surmised that the primary visitor base comes from the four nearest counties (i.e., Butte, Glenn, Colusa, and Tehama counties). The population of this four-county area is projected to grow by roughly 2 to 4% annually through 2020 (DOF 2001). There are no features of the proposed General Plan that would directly induce regional population growth. However, additional recreational facilities proposed under the General Plan could result in additional visitation to the area, thereby potentially resulting in a limited indirect increase in the employment base of the local area, primarily in Chico. Recent demographic data show that the unemployment rate (2000) in Glenn County was at 11.9% and 7.0% in Butte County, and the housing vacancy rate in Glenn County was 8.1% and 6.9% in Butte County (DOF 2002). Given these data, it is expected that any increase in the demand for labor would be met by the existing local population, and therefore, no increase in population or the need for additional housing is expected. As a result, no significant effects to population and housing would occur, and no further analysis is necessary.

4.5.4 Recreation

The proposed General Plan focuses on the development of recreational facilities and implementation of management approaches that facilitate recreation use of the Park. The environmental effects of proposed facility development and resource management are analyzed as part of this EIR. Because the proposed General Plan would provide additional recreational opportunities in the region, it would not increase the use of other existing recreation facilities that could potentially result in physical degradation of those facilities, nor would it necessitate the construction of new facilities outside the Park. Therefore, no significant adverse effects to recreation would occur and no further analysis is necessary.

4.6 Environmental Impacts

4.6.1 Aesthetics

This section analyzes the aesthetic impacts that would result from the implementation of the proposed General Plan. The analysis is based on the general location of proposed facility developments within the aesthetic setting of the Park, as well as the goals and guidelines of the Plan.

Thresholds of Significance

The thresholds of significance for the analysis of aesthetic resources are based on criteria from Appendix G (Environmental Checklist) of the State CEQA Guidelines. According to these criteria, implementation of the General Plan would result in significant impact to aesthetics 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 Analysis

Impact AES

Degradation of Viewshed and Night-time Views. Proposed facility development within the Park, namely within the riparian-based viewshed, could affect the natural appearance of the project area, including views available throughout the Park and from the Sacramento River. These developments may also introduce new nighttime light sources, which could affect nighttime views around the Park. Implementation of Goal ER-4.1 and associated Guidelines ER-4.1-1 through ER-4.1-6 would avoid or minimize potential adverse impacts to scenic resources and the aesthetic quality of the Park. As a result, this impact would be **less than significant**.

Implementation of the General Plan would result in the development of recreational and operational facilities and improvements that would be visible to Park visitors, including those people recreating along the Sacramento River and its tributaries. Such developments could potentially degrade the natural landscape of the river corridor and interfere with views of and from the Park. However, goals and guidelines have been included in the Plan to address potential adverse effects to visual resources. Goal ER-4.1, which calls for the preservation of the natural appearance of the Sacramento River corridor, is supported by a range of guidelines, including those that call for the retention of riparian woodland for aesthetic values (see Guideline ER-4.1-1), establishment of appropriate vegetative screening for new facilities

(see Guideline ER-4.1-2), and consideration of the natural aesthetics of the river when siting and designing Park signage (see Guideline ER-4.1-3). In addition, new facilities, such as the proposed visitor center, may require nighttime lighting and may introduce a new source of light/glare to the area, which could adversely affect nighttime views within the Park. Guideline ER-4.1-4 states that light/glare sources should be shielded, wherever possible, thus minimizing this impact. It is also the intent of the Department to support regular debris cleanup along the river, which would help maintain the aesthetic value of the river itself (see Guideline ER-4.1-5). With the implementation of the range of goals and guidelines in the Plan, the riparian appearance within the Park would be protected and the aesthetic values of the Park would be maintained; therefore, this impact would be less than significant and no additional mitigation measures are necessary.

4.6.2 Agricultural Resources

This section analyzes impacts related to agricultural resources that would result from the implementation of the General Plan. The analysis is based on a review of proposed facility development and resource management programs in the context of the designated Important Farmland in the region.

Thresholds of Significance

The thresholds of significance for the analysis of agricultural resources are based on criteria from Appendix G (Environmental Checklist) of the State CEQA Guidelines. According to these criteria, implementation of the General Plan would result in significant impact to agricultural resources if it would:

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

Impact Analysis

Impact AG

Conversion of Important Farmland to Non-Agricultural Uses. Implementation of the General Plan may result in the conversion of lands designated as Important Farmland that are currently in agricultural production to non-agricultural uses. Because there are no measures available to avoid or minimize this conversion as properties are added to the State Park system, this would be a **significant and unavoidable impact**.

As shown in Exhibit 2-4, portions of the Park are designated as *Important Farmland*, under the Farmland Mapping and Monitoring Program. These areas include the Irvine Finch

subunit and the Beard Addition, both of which are classified as "Prime Farmland," and the Singh Orchard Addition, which is classified as "Irrigated Farmland" (an interim farmland map category that substitutes for the *Important Farmland* categories where a modern soil survey is not available). It should be noted, however, that the Irvine Finch subunit is a developed recreation facility that is predominantly paved, and thus, would not likely meet the criteria for Important Farmland classification if reviewed in the context of existing conditions; as such, it is excluded from further evaluation. The Beard and Singh orchards are currently in production. Neither of these, nor the other Park properties, are under a Williamson Act contract, and State lands are not subject to local agricultural zoning.

In terms of proposed project features, the Singh Orchard addition is not planned for development and would likely be restored to riparian habitat and linked with the other Big Chico Riparian Area properties through the development of a loop trail. The Beard addition may be developed with an overnight campground, which would be integrated with the Irvine Finch River Access area. Because the Department would not continue agricultural production on these properties, in both cases, *Important Farmland* would be converted from agricultural to non-agricultural land uses, which would be a significant effect according to Appendix G of the CEQA Guidelines. Because no mitigation measures are available to address this issue, it is considered a significant and unavoidable impact.

It should be noted that restoring farmland to non-agricultural uses represents a return to its original (or natural) condition. In addition, there are long-term natural process and function benefits of habitat restoration.

Native riparian habitat has been dramatically reduced because of its conversion to agricultural and flood protection uses (e.g., channelization of the river with rip-rap for bank protection and levees for flood control). Taking lands out of agricultural production and restoring riparian habitat along the Sacramento River would increase animal and plant biodiversity and preserve sensitive species, and these are an important part of the Department's mission. Restoration also creates open space, which improves the aesthetics of scenic vistas and affords recreational opportunities (e.g., hiking, nature viewing and interpretation). Moreover, agricultural lands converted for riparian restoration purposes are generally flood prone and thus of marginal economic value in terms of agricultural production; such conversion would lessen the capital costs of flood protection and recurring costs of debris clean up following flood events.

Changes in land uses pursuant to the proposed General Plan could also indirectly affect adjacent agricultural operations, including agricultural uses on *Important Farmland*, if proposed facility development and resource management efforts conflict with or interrupt surrounding agricultural-based land uses. Implementation of Goal AO-4.4 and supporting Guidelines AO-4.4-1 through AO-4.4-3 would avoid or minimize such land use conflicts or incompatibilities through the use of appropriate signage/fencing, and review of development and resource management projects in the context of surrounding land uses. Therefore, there would be no additional indirect impacts to agricultural resources.

4.6.3 Air Quality

This section analyzes impacts related to air quality that would result from the implementation of the Preliminary General Plan. The analysis is based on ambient air quality conditions in the project area and is focused primarily on potential impacts associated with the construction of new facilities at the Park, as well as ongoing operations.

Thresholds of Significance

The thresholds of significance for the analysis of air quality are based on criteria from Appendix G (Environmental Checklist) of the State CEQA Guidelines. According to these criteria, implementation of the General Plan would result in significant impact to air quality if it would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standards 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- Expose sensitive receptors to substantial pollutant concentrations; or
- Create objectionable odors affecting a substantial number of people.

Impact Analysis

Impact AQ

Degradation of Air Quality. Construction and operations-related activities at the Park may generate criteria air pollutants, odors, and air toxics that could exceed federal, state, and local standards. Implementation of Goal AO-3.3 and Guidelines AO-3.3-1 and AO-3.3-2, which call for compliance with Butte County AQMD and Glenn County APCD rules and regulations, would avoid or minimize adverse effects on air quality. As a result, this impact would be **less than significant**.

Development projects at the Park could result in air emissions during construction, through the use of construction equipment and fugitive dust, and during operations, such as campfire emissions at the proposed overnight campground. These projects may be required to obtain "authorization to construct" and "permit to operate" from the Butte County AQMD and/or Glenn County APCD. As a part of this permitting process, projects are required to comply with the Districts' rules and regulations on fugitive dust emissions, architectural coating emissions, air toxics, odors, and other air pollutants during construction and operational activities. Pursuant to Goal AO-3.3 and Guidelines AO-3.3-1 and AO-3.3-2, implementation of air pollution control measures required by all applicable rules and

regulations would avoid or minimize the emission of criteria air pollutants from construction activities and stationary sources.

New recreational development proposed under the General Plan may generate additional vehicular traffic to and from the Park. The Transportation Project-Level Carbon Monoxide Protocol (Garza et al. 1997) states that signalized intersections at LOS E or F represent a potential for a CO violation. Due to the relatively low traffic volume on roadways in the area and the lack of intersections in the immediate vicinity of the Park, localized concentrations of vehicle-generated carbon monoxide would not be expected to exceed ambient air quality standards.

Typical recreational uses permitted in the State Parks system could potentially result in adverse effects on ambient air quality. Standard recreational uses are not known to generate odors that would be considered objectionable to most people, and the use of air toxics (e.g., regulated herbicides) would be in accordance with state and federal rules and regulations. However, the proposed General Plan includes provisions for the development of an overnight campground, with approximately 50 campsites and a group camp area, where the use of campfires would be expected to be standard. Based on the circumstances at the time such development is proposed, the applicable air district will be consulted and appropriate measures implemented to avoid or minimize this impact (see Guideline AO-3.3-2).

Based on the information presented above, any adverse effects on air quality would be less than significant. No mitigation measures are necessary.

4.6.4 Biological Resources

This section analyzes impacts related to biological resources that could result from the implementation of the proposed General Plan. A variety of documents and additional information were used to assess impacts on vegetation and wildlife from implementation of the proposed General Plan. These include biological studies previously conducted in the vicinity of the project site (see list of documents in Chapter 2, Existing Conditions, field surveys conducted during preparation of the Preliminary General Plan, aerial photographs, consultation with Park staff, and results of natural resource database searches.

Thresholds of Significance

The thresholds of significance for the analysis of biological resources are based on criteria from Appendix G (Environmental Checklist) of the State CEQA Guidelines. According to these criteria, implementation of the General Plan would result in significant impact to vegetation and wildlife 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 California Department of Fish and Game or U.S. Fish and Wildlife Service;

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- 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 any 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 ANALYSIS

Impact VEG

Effects on Vegetation. Implementation of the Preliminary General Plan would result in the avoidance or minimization of disturbances or losses of sensitive plant communities or special-status plants through compliance with goals and guidelines that ensure protection of vegetative resources in the Park. This impact would be **less than significant**.

As discussed in Chapter 2, Existing Conditions, the dynamic riparian ecosystem of the Park contains a number of common and sensitive vegetation communities that are valuable habitat for plants and wildlife. Sensitive plant communities in the Park include wetland, valley oak woodland, and other successional riparian woodland plant communities. Proposed improvements, such as the development of new buildings/structures (e.g., visitor center) and other recreation facilities, including the car-top boat launch area, overnight campground, day-use areas, and trails, may be developed in proximity to areas containing sensitive vegetative resources. However, these developments would avoid or minimize impacts to wetlands and other sensitive plant communities based on the protective measures included in the goals and guidelines contained in the Preliminary General Plan. These include Goal ER-1.1 and associated Guidelines ER-1.1-3 through ER-1.1-6, which focus on avoidance of sensitive resources and onsite restoration where avoidance is not feasible; and Goal ER-3.2 and Guideline ER-3.2-2, which address the establishment and maintenance of riparian vegetation along riverbanks. In addition, implementation of Goal ER-1.3 and Guidelines ER-1.3-1 and ER-1.3-2 would control and possibly reduce the presence of invasive weeds at the Park, thus limiting the effect from invasive weeds and animals on native habitats and species.

Seven special-status plant species have the potential to occur in plant communities present at the Park. Based on the CNDDB and the presence of suitable habitat, three of these species, fox sedge, rose-mallow and Columbian watermeal, can occur within the Park. However, the

presence, locations and extent of populations of these plant species can vary because they grow in aquatic habitats, which are dynamic. Undocumented occurrences of these and other special-status plant species may be present in the Park; thus, focused surveys would be necessary to accurately determine the distribution and extent of special-status plant species in the Park. Direct impacts, such as direct removal or damage of special-status plant occurrences, would not occur as a result of implementation of the General Plan because development or expansion of facilities and other ground disturbance activities, including invasive weed abatement activities, would be conducted in accordance with Goal ER-1.2 and Guidelines ER-1.2-1 through ER-1.2-6, which focus on the protection of special-status plant and wildlife species, and all previously mentioned goals and guidelines. In addition, consistent with Guidelines ER-1.1-1 and ER-1.1-6, restoration could potentially increase the quality and extent of suitable habitat for special-status plant species.

Currently, no Habitat Conservation Plans or Natural Communities Conservation Plans have been approved in the region. Therefore, implementation of the Preliminary General Plan would not conflict with such plans.

Based on the information presented above, direct and indirect impacts to sensitive vegetation communities and special-status plants would be minimized or avoided, and as a result, this impact would be less than significant.

Impact WILD

Effects on Wildlife. Implementation of the proposed General Plan would result in the avoidance or minimization of disturbances or losses of special-status wildlife and wildlife corridors. The General Plan includes a range of goals and guidelines that ensure protection of natural resources, including wildlife, in the Park. These goals and guidelines maintain potential impacts at a **less-than-significant** level.

The Park supports a variety of terrestrial and aquatic wildlife species, primarily due to its position along the Sacramento River and Big Chico Creek. Many of the animals that occur in the Park are locally and regionally common, but as many as 24 terrestrial and 5 aquatic special-status species have been documented or have the potential to occur in the Park. Construction and maintenance of existing and proposed Park facilities could result in loss and/or disturbance of habitat and individuals of some of these special-status wildlife species. Potential direct impacts could result from development, re-location and/or expansion of facilities, such as trails, parking, campgrounds, picnic/day use areas, visitor center, administrative center, and boat launches. Potential secondary impacts on wildlife resulting from increased visitor use could include disturbance from visitor activities (e.g., hiking and boating), introduction/expansion of invasive species, and disturbance by domestic dogs.

However, impacts to special-status terrestrial and aquatic wildlife species would be avoided or minimized by implementation of the goals and guidelines contained in the proposed General Plan. These include Goal ER-1.2 and associated Guidelines ER-1.2-1 through ER-1.2-5, which would require monitoring of special-status species within the Park and development of specific measures to avoid and minimize adverse impacts that could result

from facility construction, maintenance activities, and visitor use. In addition, implementation of Goal ER-1.4 and Guidelines ER-1.4-1 through ER-1.4-3, would avoid or minimize potential impacts of non-native animals on wildlife in the Park, including impacts on special-status species, through monitoring efforts, development and implementation of a control plan, and public education to reduce release and feeding of non-native animals.

Wildlife movement is not expected to be substantially affected by construction and maintenance of proposed facilities. Relatively small patches of wildlife habitat would be disturbed and/or removed by facility development and such development would not substantially reduce opportunities for wildlife movement. In addition, habitat corridors would be protected and enhanced by implementation of Goal ER-1.5 and Guidelines ER-1.5-1, which promotes linkage with habitat areas that are currently isolated, and ER-1.5-2, which requires coordination with adjacent landowners to preserve habitat corridors in the vicinity. Potential impacts to the movement and/or migration of aquatic species would be minimized or avoided by implementation of Guideline ER-1.2-5, which restricts in-water construction during fish migration, spawning, and rearing periods.

4.6.5 Cultural Resources

This section analyzes impacts related to cultural resources that would result from the implementation of the Preliminary General Plan. The analysis is based on a review of known (and potentially significant) cultural resources at the Park and proposed land use developments and resource management efforts prescribed in the proposed General Plan.

Thresholds of Significance

The thresholds of significance for the analysis of cultural resources are based on criteria from Appendix G (Environmental Checklist) of the State CEQA Guidelines. According to these criteria, implementation of the General Plan would result in significant impact to aesthetics if it would:

- Cause a substantial adverse change in the significance of historical resources;
- Cause a substantial adverse change in the significance of an archaeological resource;
- 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.

Impact Analysis

Impact CUL

Impacts to Cultural Resources. Implementation of the Preliminary General Plan would result in the avoidance or minimization of disturbances to the integrity of cultural resources located within the Park. The Preliminary General Plan includes goals and guidelines that ensure the protection and maintenance of prehistoric and historic sites, features, and landscapes documented within the Park. This impact is considered **less than significant**.

Although portions of Bidwell-Sacramento River State Park have been subjected to cultural resource surveys related to transportation, reclamation, and recreation projects, no prehistoric or historic sites, features or artifacts have been formally documented within the Park. However, several important sites are known to exist (e.g., Bidwell Ferry, Gianelli Bridge, Sea Scout station, Tyler Dance Hall, etc.), but these have not been recorded using standard archaeological techniques. In addition, based on the presence of significant cultural resources within and in the immediate vicinity of the Park, and the sensitive nature of the landforms present in the area, it is likely that important resources remain to be discovered within Park boundaries.

Although general statements can be made regarding the cultural resources sensitivity of particular landforms within the Park (e.g., stream terraces and riverbanks are typically more likely to exhibit evidence for prehistoric occupation and various activities), additional surveys are needed to locate cultural resources, document their distribution, and ensure that they are not adversely affected by Park development and maintenance proposals. The implementation of Goals ER-2 and ER-2.1 and associated Guidelines ER-2.1-1, ER-2.1-2, and ER-2.1-3 support future research regarding the presence of cultural resources at the Park, including the development of a Cultural Resource Management Plan, and would also require cultural resource surveys prior to any development project proposed at the Park. These goals and guidelines prescribed in the General Plan would add considerably to the levels of research and preservation of cultural resources currently occurring within the Park, and therefore, would reduce impacts to a less than significant level.

4.6.6 Geology, Soils, and Seismicity

This section analyzes impacts related to geology, soils, and seismicity that would result from the implementation of the General Plan. The analysis is based on a review of available geologic, seismic, and soils-related information for the project area in the context of development and resource management features included as part of the proposed General Plan.

Thresholds of Significance

The thresholds of significance for the analysis of geology, soils, and seismicity are based on criteria from Appendix G (Environmental Checklist) of the State CEQA Guidelines. According to these criteria, implementation of the General Plan would result in significant impact to geological resources 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, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault, strong seismic ground shaking, seismic-related ground failure, including liquefaction, and/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 (1994), creating substantial risks to life or property; or
- Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

IMPACT ANALYSIS

Impact GEO

Risk of Geologic and Seismic Hazards. The recreational facilities and other structures developed in the Park could be potentially subject to geologic and seismic hazards and/or other adverse environmental effects based on geologic and soil-related conditions that exist at the Park. Compliance with the California Building Code (CBC) would maintain the risks of such hazards to an acceptable level; therefore, this impact would be **less than significant**.

The Park is located in a seismically active region, and potentially active faults in the area (e.g., Chico Monocline fault, Coastal Ranges thrust zone, and other faults in the Sierra foothills) may produce earthquakes with magnitudes of 6.5 or greater (Butte County 1996). However, there are no faults in the immediate project area, and the Park is not located in an Alquist-Priolo special study zone. As a result, although the potential for seismic activity in the region exists, the Park is not expected to be subject to fault rupture. Due to the relatively mild topography of the Park, only minor (if any) seismically-induced landslides along river banks could occur. In the event of a large earthquake, the Park could be subject to moderately-strong seismic ground shaking, which could result in potential structural damage to Park facilities. The risk of liquefaction, which is the transformation of soils from a solid state to a liquid state during ground shaking, is high at the Park due to the presence of saturated sandy soils (e.g., Columbia silt loam, Maywood fine sandy loam, Gianella fine sandy loam). Liquefaction can cause buildings to sink and could render them susceptible to major damage. By law, all structures developed within the Park would have to comply with the standards contained in California Code of Regulations, Title 24 (i.e., CBC). As such, future development and improvements would include structural reinforcements and other features, as required by the CBC, which avoid or minimize seismically induced structural damage.

In terms of soil-related impacts, the primary risks at the Park are soil erosion and subsidence. Erosion risk increases with increasing slope, precipitation, ground disturbance, and decreasing vegetative cover. Although the Park is relatively flat and is densely vegetated in most areas, ground-disturbing activities that would be occurring at the Park (e.g., trail use) coupled with loss of vegetation from facility and trail development and climatic factors (e.g., wind, precipitation, etc.) could result in erosion and the loss of topsoil at the Park. However, there are goals and guidelines in this Plan that would control erosion factors. Goal ER-1.1 and Guidelines ER-1.1-1 and ER-1.1-2 would generate additional vegetative cover within the

Park, which would generally aid in minimizing erosion. In addition, the construction of new facilities would require the use of best management practices, including measures specified in erosion-control plans, as prescribed in Goal ER-3.2 and Guideline ER-3.2-1. Further Guideline ER-3.2-2 would maintain vegetative buffers along the riverbank, which would avoid or minimize the potential for transport of sediment into water bodies during construction activities and visitor use at the Park. Guideline ER-3.2-3 requires trails be designed, maintained, and monitored to minimize adverse erosion effects. Given these goals and guidelines, the potential for soil erosion would be avoided or minimized.

Subsidence is a concern in the region due to natural gas and groundwater extraction. In the immediate vicinity of the Park, the primary cause of subsidence is groundwater extraction for agricultural purposes. Implementation of the General Plan would accommodate the conversion of agricultural uses to open space and recreational uses on several properties being considered for addition to the Park. While new wells may be needed to provide potable water at recreational facilities, the overall use of groundwater is expected to decrease because irrigation-dependent agricultural uses would be discontinued. As such, implementation of the General Plan would decrease the risk of subsidence. Moreover, facilities that would be developed at the Park would be required to comply with the CBC, which includes structural requirements for areas susceptible to subsidence.

It should also be noted that the characteristics of the soils within the Park are conducive to supporting specialized septic systems (i.e., septic tanks designed to prevent accidental release during flood events), such as those currently operating at the Irvine Finch and Indian Fishery subunits. As a result, future developments that may require the use of septic systems would not be limited by the soils in the project area.

Overall, because potential seismic-related impacts would be avoided or minimized through provisions in the CBC, erosion impacts would be addressed through goals and guidelines in the plan, and there are no soils-related limitations to the use of septic systems at the Park, implementation of the proposed General Plan would result in less-than-significant impacts to geology and soils. No mitigation measures are necessary.

4.6.7 Hazards and Hazardous Materials

This section analyzes impacts related to hazards and hazardous materials that would result from the implementation of the General Plan. The analysis considers the types of proposed uses at the Park and the standard equipment and materials used in operating and managing the Park in relation to proposed hazard that could affect Park visitors and staff.

Thresholds of Significance

The thresholds of significance for the analysis of hazards and hazardous materials are based on criteria from Appendix G (Environmental Checklist) of the State CEQA Guidelines. According to these criteria, implementation of the General Plan would result in significant impact associated with hazards and hazardous materials 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, substances, or waste within one-quarter mile of an existing or proposed school;
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;
- For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area;
- For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area;
- 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 ANALYSIS

Impact HAZ

Risk of Wildland Fire, Exposure to Hazardous Materials, and Other Hazards. While the General Plan would accommodate new developments and improvements that may increase fire incidents and the use of hazardous materials, implementation of the management goals and guidelines, as well as the compliance with existing codes, rules and regulations, would maintain this impact at a **less-than-significant** level.

The analysis of hazards and hazardous materials under CEQA is multi-faceted. It is intended to address the use of hazardous materials, emergency response, and wildland fire. Each of these topics is addressed below.

There are no documented hazardous materials sites within the Park (EPA 2003). Implementation of the General Plan would not result in a substantial increase in the use of hazardous materials (e.g., propane, herbicides) at the Park. Transport and storage of hazardous materials within the Park would continue to be conducted in accordance with all regulatory requirements. Day-to-day operation of the Park does not involve the disposal of hazardous materials, and the Department would continue to contract with licensed providers of propane and herbicides when transporting these materials to the Park, as needed. The

use, storage, and disposal of hazardous materials, as well as the development of new storage facilities, would comply with state and federal rules and regulations.

Implementation of the General Plan would not conflict with the emergency response plans of either Butte or Glenn counties. Implementation of Goal AO-2.3 and Guidelines AO-2.3.1 and AO-2.3-2 would promote coordination with emergency response agencies in planning for the safety of Park visitors, including the continuation of a coordinated emergency response to special events at the Park. No road closures are planned, and adequate emergency vehicle access would be maintained with implementation of Guideline AO-2.3-3 which would require all areas to accommodate adequate access for emergency vehicles.

The increase in interaction between Park visitors and wildland habitat, as well as introducing new recreational uses at the Park, would increase the risk of wildland fires at the Park. Implementation of the General Plan would result in additional native vegetation habitat through restoration opportunities (see Goal ER-1.1), which could increase the fuel load at the Park. Increases in fuel load combined with additional recreational facilities and trails that would increase human activity throughout the Park, including the use of campfires at the proposed overnight campground, would result in a higher risk for wildfires relative to baseline conditions. The threat of wildfire could threaten or otherwise adversely affect Park visitors, nearby establishments, private residences, and other nearby land uses such as agriculture. Implementation of Goal AO-2.3 and Guidelines AO-2.3.1 and AO-2.3.2 would facilitate monitoring and patrolling of the Park, which would provide the opportunity to respond to potential causes of wildfire (e.g., illegal fires). In addition, Guideline AO-3.3-2 would restrict the use of campfires, further minimizing potential wildfire ignition. And finally, Guideline VU-3.7-4 would ensure the provision of information to visitors on Park rules regarding fire safety. Given these goals and guidelines, the increase in the risk of wildland fire is not expected to be substantial. Further, all buildings would be designed in compliance with the CBC, which requires fire safety features.

The Park is not within 2 miles of an airport, and the General Plan would not accommodate the types of development that would be in conflict with the operation of the nearest airport in Chico.

Based on the information presented above, impacts related to wildland fires, risk of exposure to hazardous materials, and risks associated with airport operations are considered to be less than significant. No mitigation measures are necessary.

4.6.8 Hydrology and Water Quality

This section analyzes hydrology and water quality impacts that would result from the implementation of the General Plan. This analysis considers the proposed development and resource management efforts prescribed in the General Plan in the context of the hydrological conditions that currently characterize the Park.

THRESHOLDS OF SIGNIFICANCE

The thresholds of significance for the analysis of hydrology and water quality are based on criteria from Appendix G (Environmental Checklist)of the State CEQA Guidelines. According to these criteria, implementation of the General Plan would result in significant impact to hydrological resources if it would:

- Violate any water quality standards or waste discharge requirements;
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted);
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
- 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. Otherwise substantially degrade water quality;
- Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;
- 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 levee or dam; or
- Inundation by seiche, tsunami, or mudflow.

IMPACT ANALYSIS

Impact HYDRO

Flood Damage, Riverbank Erosion, and Water Quality Degradation. Implementation of the General Plan would allow for the development of facilities within the floodplain, the construction and operation of which could generate pollutants that may affect water quality. Compliance with goals and guidelines and existing rules and regulations would maintain these impacts at **less-than-significant** levels.

All of the Park's subunits, except Irvine Finch, are located within the 100-year floodplain. The General Plan would allow for the development of new facilities in the floodplain based on

incorporating site and facility design features (e.g., elevated building pads), as prescribed in Goal AO-3.1 and Guideline AO-3.1-1. Some proposed facilities, such as campgrounds, function with minimal problems in the floodplain, while other permanent structures may need to be designed with flood-related protective features. In addition, per Guideline AO-3.1-2, existing facilities at the Park would be re-designed to withstand flood events, as needed. As a result, potential adverse environmental effects associated with flooding, including structural damage and release of pollutants, is expected to be minimal.

Implementation of the General Plan would not result in the alteration of the Sacramento River or its tributaries. However, the General Plan would allow for the development of new facilities and operations of existing facilities within the designated floodplain and Inner River Zone (see Guideline AO-3.1-1). It should be noted that siting of appropriate facilities within the Inner River Zone would take into account historic flooding patterns and river meander, including known hard-points along the river channel. As a result, the potential conflicts between structural developments and the natural hydrology of the river channel is expected to be minimal.

Based on the existing drainage pattern of the Park, which often results in onsite flooding, there are no features of the General Plan that would result in localized flooding at offsite locations. Furthermore, given the channel volume of the Sacramento River, implementation of the General Plan would not impede or redirect flood flows.

Due to close proximity of the Park to the Sacramento River and its tributaries, additional runoff generated by new impervious surfaces associated with facility development may drain into nearby waterways, thereby adversely affecting water quality. By virtue of the location of facilities within the floodplain, onsite pollutants may be washed into nearby waterways during flood events, resulting in degradation of water quality. However, there are goals and guidelines in the proposed General Plan that address potential impairments to water quality. Goal ER-1.1 and Guidelines ER-1.1-1 and ER-1.1-2 would result in additional vegetative cover within the Park, which serves as a filter to pollutants entering nearby water bodies. Goal ER-3.2 and Guidelines ER-3.2-1 and ER-3.2-2 would require vegetative buffers and other erosion-control features that would avoid or minimize the potential for runoff to carry eroded soils into water bodies during construction and operational activities. Erosion-control and other water quality control features may also be required by the Central Valley RWQCB through the NPDES permit program. Site-specific best management practices (BMPs) to reduce the level of contaminants in discharges to surface waters (e.g., runoff, dewatering discharges) would be required for all construction and operational activities in the Park that could result in the generation of contaminants in discharges (e.g., all construction activities involving more than one acre of disturbed areas). Through the Section 401 certification program, water quality control features may be required to ensure that the placement of fill in the waters of the United States (e.g., wetlands, rivers and streams) is consistent with the State's water quality standards and criteria. These goals and guidelines, as well as RWQCB requirements, would avoid or minimize the contribution of sediments and other pollutants into waterways.

Based on the information presented above, the General Plan would result in less-than-significant impacts related to the hydrology and water quality at the Park. No mitigation measures are necessary.

4.6.9 Noise

This section analyzes noise impacts that would result from the implementation of the General Plan. The analysis is based on typical noise levels generated by recreation uses that would be accommodated at the Park and the relationship with established noise standards.

Thresholds of Significance

The thresholds of significance for the analysis of noise are based on criteria from Appendix G (Environmental Checklist) of the State CEQA Guidelines. According to these criteria, implementation of the General Plan would result in significant impact associated with noise if it would:

- Expose persons to or generation of noise levels in excess of established standards;
- Expose persons to or generation of excessive groundborne vibration or groundborne noise levels;
- Cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project; or
- Cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Impact Analysis

Impact NOISE

Increase in Ambient Noise Level. Based on the proposed facility developments in the General Plan, there would likely be an increase in visitation to the Park that could result in increases in ambient noise primarily from vehicle access to and from the Park. However, visitor use at the Park is not expected to be such that ambient noise levels would result in adverse impacts to sensitive receptors. Further, compliance with goals and guidelines in the General Plan would ensure that future construction of facilities and other improvement efforts at the Park would not generate noise levels that exceed the State noise guidelines. Therefore, this impact would be **less than significant**.

The three primary sources of noise expected within the Park are construction activities, operations of facilities, and vehicular traffic. Based on the California Office of Planning and Research's General Plan Guidelines (State Guidelines), 60 dBA is the maximum acceptable noise level for the most noise-sensitive land uses (e.g., single-family residences). Recreation and agricultural uses have a maximally acceptable noise level of 75 dBA, and the standard for commercial businesses is 70 dBA. While areas conducive to wildlife and nature observation are not included in the State Guidelines, they would also be considered noise-sensitive uses.

Based on information provided by U.S. Environmental Protection Agency (EPA), outdoor receptors within approximately 1,600 feet of construction sites could experience maximum instantaneous noise levels of greater than 60 dBA when onsite construction-related noise levels exceed approximately 90 dBA at the boundary of the construction site. There are sensitive uses that exist near the Park, including private residences adjacent to the proposed Sunset Ranch Addition and Scotty's Bar and Grill located along Pine Creek.

In addition, potential stationary sources of noise within the Park include the operation of facilities (e.g., visitor center), which would generate occasional parking lot-related noise, and general recreation use, which would generate noise from the use of recreation equipment (e.g., motor boats) and casual conversation.

Finally, if future development and improvements would generate additional visitation to the Park, then traffic volumes and the associated noise volumes along roadways would increase.

Overall, there exists the potential for adverse noise effects to nearby sensitive receptors resulting from construction of activities, including the development of a visitor center at the Park; stationary source noise associated with typical recreation uses at the Park; and traffic-related noise associated with increased visitation to the Park. Based on the characteristics of the Park and expected use levels, noise associated with typical recreation uses and traffic is not expected to exceed State Guidelines. However, construction-related noise could adversely affect nearby residences on a short-term and periodic basis. Goal AO-3.3 and Guideline AO-3.3-3 would require proposed development projects conformance with applicable state noise standards. This may be achieved through implementation of noise-reducing measures (e.g., noise walls, site design changes, and limits on hours of operations) that would maintain appropriate construction noise levels near sensitive uses. Therefore, this impact would be less than significant, and no mitigation measures are necessary.

4.6.10 Transportation and Circulation

This section analyzes transportation and circulation impacts that would result from the implementation of the General Plan. This analysis considers potential increases in visitation that would result from the proposed General Plan and the related effects on traffic and circulation in the project area. It should be noted that recreation use projections have not been developed for the Plan, and therefore, the analysis represents a qualitative evaluation of this issue.

Thresholds of Significance

The thresholds of significance for the analysis of transportation and circulation are based on criteria from Appendix G (Environmental Checklist) of the State CEQA Guidelines. According to these criteria, implementation of the General Plan would result in significant impact to transportation and circulation if it would:

- Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the

number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections);

- Exceed, either individually or cumulatively, a level of service standard established by the congestion management agency for designated roads or highways;
- Substantially increase 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;
- Result in inadequate parking capacity; or
- Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

IMPACT ANALYSIS

Impact TRANS

Increase in Trips and the Effect on Local Traffic, Circulation, and Roadway Safety. Implementation of the General Plan may increase traffic volumes on local roadways serving the Park during noncommuter peak periods, but would not likely result in the degradation of traffic flows or the need for roadway expansion. Increased visitation to the Park may also affect internal circulation and parking, as well as roadway safety. Goals and guidelines in the General Plan avoid or minimize potential adverse affects related to the internal and local transportation system. As such, traffic-related impacts would be **less than significant**.

The General Plan would allow for new recreational developments that may attract additional visitation, which would increase vehicular trips along local roadways serving the Park. Most of the additional vehicular trips would occur during weekends, particularly during holiday weekends, and very few of the trips are expected during the peak commuter hours when LOS levels along SR 32 are of concern. Further, goals and guidelines in the General Plan would also facilitate the provision of public transportation to the Park (see Goal VU-3.2 and Guidelines VU-3.2-1 and VU-3.2-2), which would likely have a beneficial effect on traffic volumes in the area. There may be short-term traffic congestion during peak-period recreation events (e.g., Fourth of July, Labor Day), when thousands of visitors overwhelm the capacity of the local roadways. However, coordination and collaboration with Caltrans and other agencies, per Goal AO-2.3, which requires the provision of a safe environment for the visitors, and Guideline AO-2.3-2, would facilitate the safest and most expedient access to and from the Park possible. Overall, traffic conditions along local roadways are not expected to noticeably change as a result of the proposed General Plan.

In terms of roadway safety, intersection improvements or new intersections may be needed along SR 32, River Road, and other roadways where access roadways to new facility development connect with existing roadways. This is particularly applicable to proposed development areas that may need design features to provide safer access off the existing roadway system, which may be the case at the Sunset Ranch property. Goal VU-3.1 and

Guidelines VU-3.1-1 through VU-3.1-5 would provide for adequate roadway signage, preparation of traffic analyses for major development proposals, and coordination with Caltrans and local jurisdictions to implement roadway improvements, where necessary, to ensure safe access to and from the Park. Moreover, separation of vehicle traffic from pedestrians, bicyclists, and equestrians, and installation of roadway safety signage in the Park is prescribed under Guidelines VU-3.8-1 and VU-3.8-2, respectively. During peak-period recreation events, Goal AO-2.3 and Guidelines AO-2.3-2 would promote safe access to and from the Park along local roadways. In addition, implementation of Guideline AO-2.3-3 would ensure that the existing and new use areas be designed to maintain adequate access for emergency vehicles. Roadway visibility may be affected by nighttime campfire smoke from proposed overnight campgrounds; however, because these emissions would originate from proposed small- to moderate-scale facilities that are not located directly on the roadway system, they are not anticipated to result in safety hazards. With goals and guidelines prescribed in this plan, implementation of the General Plan would not be expected to adversely affect traffic safety in the project area.

With additional facilities, additional parking capacity would be needed at the Park. Implementation of Goal VU-3.3 and Guidelines VU-3.3-1 and VU-3.3-2 would provide for expanded parking capacity for vehicles and buses and private vehicles to meet visitor needs.

Overall, given the goals and policies related to traffic and circulation included in the Plan, as well as the compliance with applicable codes and regulations, impacts related to traffic and transportation would be less than significant.

4.6.11 Public Services and Utilities

This section analyzes impacts on utility and public service systems that would result from the implementation of the General Plan. The analysis based on the potential demands for public services and utilities as part of proposed facility developments included in the General Plan.

Thresholds of Significance

The thresholds of significance for the analysis of public services and utilities are based on criteria from Appendix G (Environmental Checklist) of the State CEQA Guidelines. According to these criteria, implementation of the General Plan would result in significant impact to public services and utilities if it would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection, police protection, schools, parks, and other public facilities;
- 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 new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed;
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs; or
- Comply with federal, state, and local statutes and regulations related to solid waste.

IMPACT ANALYSIS

Impact UTIL

Increased Demand for Utility and Public Services. The General Plan would allow for the development of new facilities and improvements that would generate an increase in the demand for utility and public services. Because existing service providers and resource capacities are expected to be sufficient, the impact would be **less than significant**.

The General Plan would allow for the development of new facilities and site improvements that would increase visitor use at the Park, and therefore, generate additional demand for water, wastewater, electricity, propane, solid waste, telephone, law enforcement, fire protection, emergency, and road maintenance services. Because the level of additional visitation is not expected to be substantial, the Department would continue to utilize existing sources of utility and other public services, which have sufficient capacity to accommodate increases in demands that would result from implementation of this plan.

For services provided by outside sources including, solid waste collection and disposal, road maintenance, fire protection, law enforcement, and emergency medical services, existing service providers would be utilized. There are no known capacity issues that would affect the provision of these services for the Park.

The Department would continue to provide potable water from its existing wells or from new wells as needed. Based on the types of facilities proposed and the ceasing of irrigation on potential property additions currently in agriculture, it is expected that the existing groundwater supply would be sufficient to serve the Park. New water and wastewater facilities (e.g., pipelines) may be needed for new developments and would be built in conjunction with specific facility developments, per Guidelines AO-3.2-1 and AO-3.2-2.

The construction and installation of new equipment and facilities that may be needed to serve the future development within the Park could result in adverse environmental effects. Because preference would be given to the use of existing infrastructure over the development of new infrastructure, in accordance with Goal AO-3.2 and Guidelines AO-3.2-1 and AO-3.2-2, which give preference to connection with existing infrastructure over the development of new infrastructure, the amount of new development, including ground-disturbing activities, required to provide utility and public services may be avoided or minimized.

While the exact nature of the infrastructure and service needs would not be determined until the development proposal is available, it is expected that any adverse effects would be mitigated to the extent feasible in accordance with Guideline AO-3.2-3. Construction and operations of any new equipment and facilities are expected to be in compliance with state and federal rules and regulations. In addition, new infrastructure and services are expected to be environmentally compatible with the Park's resources, and any degradation of environmental values is not expected to be substantial based on implementation of Guideline AO-3.2-3.

Based on the information provided above, overall impacts associated with the provision of utility and other public services is expected to be less than significant, and no mitigation measures are necessary.

4.7 Other CEQA Considerations

4.7.1 Unavoidable Significant Effects on the Environment

This first-tier environmental review indicates that the potential significant environmental effects from implementation of the General Plan can be maintained at a less-than-significant level with appropriate facility siting, implementation of goals and guidelines included in this Plan, and the development of specific mitigation measures during the project-level environmental review process. The one exception, as discussed below, is the unavoidable significant conversion of farmland to non-farmland uses.

At the programmatic level, it is generally difficult to identify unavoidable significant effects on the environment because the specific location and scope of proposed uses or management efforts are not known. However, there are features of the proposed General Plan that would likely result in unavoidable significant effects on the environment, as described below.

Implementation of the General Plan would likely result in a significant and unavoidable effect related to the conversion of *Important Farmland* to non-agricultural uses. By expanding the Park through property acquisition and either restoring or developing new properties that are or may be considered *Important Farmland* (i.e., Beard Addition, Singh Orchard), these properties would be converted from agricultural to non-agricultural uses. Because the Department would not continue agricultural operations on these properties and there are no measures that can be taken to mitigate this effect, it is considered an unavoidable and significant effect on the environment under CEQA (Appendix G Checklist, CEQA Guidelines).

It should be noted that the Department would restore native riparian habitat on this land and that restoration would result in long-term natural process and function benefits.

4.7.2 Significant Irreversible Environmental Changes

No significant irreversible changes to the physical environment are anticipated from the adoption and implementation of this General Plan. Facility development, including structures, roads and trails, may be considered a long-term commitment of resources; however, the impacts can be reversed through removal of the facilities and discontinued access and use. Ongoing adverse effects on the environment, if any, can be monitored by Park staff through their consideration of carrying capacity issues. The Department does remove, replace, or realign facilities, such as trails and campsites, where impacts have become unacceptable either from excessive use or from a change in environmental conditions.

The construction and operation of facilities may require the use of non-renewable resources. This impact is projected to be minor based on considerations of sustainable practices in site design, construction, maintenance, and operations that are generally practiced by the Department. Sustainable principals used in design, construction and management, such as the use of non-toxic materials and renewable resources, resource conservation, recycling, and energy efficiency, emphasize environmental sensitivity.

4.7.3 Growth-Inducing Impacts

State CEQA Guidelines §15126.2(d) require that an EIR evaluate the growth-inducing impacts of a proposed project. Specifically, an EIR must discuss the ways in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Growth can be induced in a number of ways, including the elimination of obstacles to growth, or by encouraging and/or facilitating other activities that would induce new growth. Growth inducement itself is not an environmental effect, but may lead to environmental effects. Such environmental effects may include increased demand on other community and public services and infrastructure, increased traffic and noise, degradation of air or water quality, degradation or loss of plant or wildlife habitats, or conversion of agricultural and open space land to urban uses.

If implemented completely, the General Plan may indirectly foster economic growth in the region. This economic growth would be associated with the development of new recreational and interpretive facilities, which could increase visitation to the Park. The anticipated increase in Park visitation is based on an increase in the overall capacity of the Park (i.e., Park expansion), interpretive potential at the proposed visitor center, the development of family and group day-use and overnight camping facilities, and improvements to the trail system, including additional new trails and linkages between the Park and regional trails. Additional directional and informational signage outside the Park should raise the Park's profile as a destination for recreation and historical interpretation.

If visitation to the Park increases, tourism-related spending would increase in adjacent communities and surrounding region, which would in turn support tourism- and recreation-related businesses and employment. The extent of such economic effects is unknown at this time, but could indirectly result in growth of local economic activity.

In addition, there will be the need to expand permanent and seasonal Park staff to address increases in Park visitation and to operate facilities, such as the proposed visitor center. Increases in employment opportunities in both the public and private sector could result in increases in local population growth, but this effect is expected to be minimal because the number of new jobs is not expected to be substantial and any new employees would likely be from the local area.

4.7.4 Cumulative Impacts

This EIR provides an analysis of cumulative impacts of the proposed General Plan, as required in State CEQA Guidelines §15130. Cumulative impacts are defined in State CEQA Guidelines §15355 as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." A cumulative impact occurs from "the change in the environment, which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor, but collectively significant, projects taking place over a period of time (State CEQA Guidelines §15355[b]). By requiring an evaluation of cumulative impacts, CEQA attempts to ensure that large-scale environmental impacts will not be ignored.

To evaluate cumulative environmental impacts, other projects that could cumulatively contribute to the impacts described in this EIR need to be identified. In addition to substantial growth in the Chico region, several development and planning projects are being undertaken in close proximity to the Park by other public agencies, including the U.S. Army Corps of Engineers (USACE), USFWS, and CDFG. These projects are:

- Sacramento River Wildlife Area Management (CDFG).
- Comprehensive Conservation Plan – Sacramento River National Wildlife Refuge (USFWS).
- Hamilton City Flood Damage and Ecosystem Restoration Project (USACE)

Please refer to Chapter 2, Existing Conditions and Issues, for an overview and key features of these projects.

As described above, the facility development and resource management efforts proposed in the General Plan would not, except for conversion of farmland, result in significant adverse environmental impacts based on implementation of the goals and guidelines included in the Plan. Although not individually significant, those environmental topics that are not expected to be subject to significant adverse effects from the proposed development in the General Plan may result in cumulative impacts to the extent that they are occurring in the region, such

as water quality degradation and the loss of biological, cultural, and visual resources. However, features of the General Plan, including possible acquisitions and resource protection efforts, would act to protect existing Park resources, preserve viewsheds, and enhance plant and wildlife habitat by providing habitat linkages and buffers. As a result, cumulative impacts associated with these environmental topics are expected to be less than significant.

The General Plan would result in a significant and unavoidable impact related to the conversion of *Important Farmland* in the project area. This loss would cumulatively contribute to the loss of farmland and agricultural productivity that is affecting the region and the state, including losses associated with implementation of restoration and conservation uses on adjacent public lands. Therefore, this would be a significant and unavoidable cumulative impact, although restoration would return farmland to its original riparian habitat state, and provide environmental benefits to improved natural process and functions.

4.8 Alternatives to the Proposed Project

The guiding principles for the analysis of alternatives in this EIR are provided by the State CEQA Guidelines §15126.6, which indicate that the alternatives analysis must: (1) describe a range of reasonable alternatives to the project that could feasibly attain most of the basic objectives of the project; (2) consider alternatives that could reduce or eliminate any significant environmental impacts of the proposed project, including alternatives that may be more costly or could otherwise impede the project's objectives; and (3) evaluate the comparative merits of the alternatives. The State CEQA Guidelines §15126.6(d) permit the evaluation of alternatives to be conducted in less detail than is done for the proposed project. A description of the project alternatives, including the No Project Alternative, is provided in this EIR to allow for a meaningful evaluation, analysis, and comparison of these alternatives with the proposed General Plan.

4.8.1 Description and Environmental Effects of the Alternatives

Alternatives 1A, 1B, and 1C: Project Planning Alternatives.

Description

A range of planning alternatives was developed and presented to the public during the General Plan process. These alternatives represented a menu of options in addressing the various issues identified at the Park, and were organized by the degree of management (or treatment) for a particular issue. As such, these alternatives do not just represent separate alternatives unto themselves, but also describe packages of management intensity, ranging from minimum to moderate to maximum treatment of natural and recreational resources. In addition, some of the integral key features are included in more than one planning alternative.

The *minimum* treatment of natural and recreational resources (Alternative 1A) includes the following key features:

- Monitoring approach to management of special-status plant/wildlife species and non-native/feral animals;
- Control of California Department of Food and Agriculture (CDFA) Class "A" and "B" noxious weeds;
- Use of native plants in facility landscaping;
- Focus on the protection of known cultural resources;
- Expand Irvine Finch boat launch area and develop small-scale car-top boat launch area at the Peterson property;
- Minor expansion of picnic amenities at existing day-use areas;
- Limited number of primitive, environmental campsites at the Big Chico Creek Riparian Area, east of River Road;
- New internal loop trail at Big Chico Creek Riparian Area and canoe trail;
- Small visitor center at Beard Addition using signs/panels;
- Relocation of existing administrative center to Sunset Ranch Addition; and
- Implement policies that foster community involvement and coordination with local and regional planning efforts.

The *moderate* treatment of natural and recreational resources (Alternative 1B) includes the following key features:

- Active approach to management of special-status plant/wildlife species, including restoration of threatened and endangered species habitat and control of animals affecting sensitive species;
- Prevent spread of all existing and establishment of new invasive weeds;
- Restore natural habitat of future property additions;
- Focus on the protection of known and potential cultural resources at the Park;
- Expand Irvine Finch and Pine Creek boat launch areas and develop moderate-scale car-top boat launch area on the east side of the Big Chico Creek Riparian Area;
- Small expansion of existing day-use areas and develop new day-use area at Indian Fishery;
- Limited number of primitive, environmental campsites in the eastern portion of the Big Chico Creek Riparian Area and in Indian Fishery (near Old Chico Landing) and small family campground at Indian Fishery;
- New internal loop trail at Big Chico Creek Riparian Area, expand existing loop trail at Indian Fishery, and canoe trail;
- Moderate-scale, mobile visitor center with working farm at Sunset Ranch Addition;
- Relocation of existing administrative center to Sunset Ranch Addition; and

- Implement policies that foster community involvement and coordination with local and regional planning efforts.

The *maximum* treatment of natural and recreational resources (Alternative 1C) includes the following features:

- Active approach to management of special-status plant/wildlife species, including restoration of all sensitive species habitat, control of animals affecting sensitive species, and monitoring of biodiversity;
- Reduce extent of and control all invasive weeds;
- Restore natural habitat of all degraded sites within the Park;
- Focus on the protection of known/potential cultural resources at the Park and develop Cultural Resource Management Plan;
- Expand Irvine Finch and Pine Creek boat launch areas and develop larger-scale boat launch area on the eastern portion of the Big Chico Creek Riparian Area providing car-top and motorized boat access;
- Small expansion of existing day-use areas and development of two new day-use areas;
- Limited number of primitive, environmental campsites on the eastern portion of the Big Chico Creek Riparian Area and Indian Fishery (near Old Chico Landing). Large family campground at Beard Addition;
- New internal loop trail at Big Chico Creek Riparian Area, expand existing loop trail at Indian Fishery, coordinate to develop multi-agency loop trail near Sunset Ranch, and canoe trail;
- Coordinate to develop permanent, large-scale visitor center with working farm at the Sunset Ranch Addition serving multiple public agencies;
- Relocation of existing administrative center to Sunset Ranch Addition; and
- Implement policies that foster community involvement and coordination with local and regional planning efforts.

EVALUATION

The minimum treatment of natural and recreation resources (Alternative 1A) does not provide for substantial recreation development, but is limited in the extent of management of important natural, cultural and visual resources. On the other end of the spectrum, the maximum treatment of natural and recreation alternatives (Alternative 1C) calls for the greatest amount of facility development, but also includes the strongest or most stringent management of natural resources at the Park. The moderate treatment of natural and recreation alternatives (Alternative 1B) lies in between these two bookend planning concepts. It is difficult to ascertain what the resulting net environmental effect would be from these three alternatives on the environmental resources at the Park. Based on the balance of physical

development and environmental stewardship that characterizes each of these alternatives, it would be expected that these three alternatives would result in comparable environmental impacts relative to one another. Further, because the proposed General Plan is characterized by a combination of the three planning alternatives described above, and also balances the development of facilities with sound stewardship of natural resources, it is also expected to result in comparable environmental impacts relative to these planning concepts.

ALTERNATIVE 2: MAXIMUM RESTORATION ALTERNATIVE

Description

This alternative represents the scenario where the existing subunits of the Park and all future property additions are restored to natural habitat conditions to the extent feasible. As such, existing facilities at the Park would be removed where appropriate and no new recreation or operations-related facilities would be developed. The Park would ultimately represent discontiguous pockets of protected open space, where visitors could engage in passive recreation opportunities in the absence of developed facilities.

Evaluation

The Maximum Restoration alternative would result in less environmental impacts relative to the proposed General Plan. Because no recreation or other facility development is proposed, adverse environmental effects associated with ground-disturbing construction activities, such as loss or degradation of sensitive riparian and/or wildlife habitat, would be avoided. Also, there would be relatively less visitation to the Park under this alternative because recreation opportunities at the Park would be limited to passive opportunities only. With less visitation, there would also be less demand on consumptive resources (e.g., potable water) and public services (e.g., law enforcement), and resulting traffic, air quality, and noise effects would be less pronounced relative to the proposed project. However, this alternative would still entail addition of the three proposed properties included as part of the proposed project (i.e., Beard property, Sunset Ranch, and Singh Orchard), which would be restored to their natural habitat conditions. As a result, this alternative would result in the conversion of Important Farmland to non-agricultural uses similar to the proposed project.

Although the Maximum Restoration alternative would result in less impact to the environment, relative to the proposed project, it would not achieve one of the Department's primary missions –providing high-quality recreation opportunities to residents of the State. However, this alternative would still meet the criteria of a State Park, which are intended to balance natural, cultural, and scenic resource considerations and facilitate the provision of the recreational opportunities they provide to the public (albeit extremely limited under this alternative).

ALTERNATIVE 3: NO PROJECT ALTERNATIVE

Description

The California Environmental Quality Act requires an evaluation of the "no project" alternative and its impact (CEQA Guidelines §15126.6[e][1]). The no project alternative represents perpetuation of existing management actions, and its analysis is based on the physical conditions that are likely to occur in the future if the project (the proposed General Plan) is not approved and implemented. The purpose of describing and analyzing a no project alternative is to allow decision-makers to compare the impacts of approving the proposed project with the expected impacts of not approving the project. If a general plan is not implemented for Bidwell-Sacramento River State Park, the existing management scenario would continue for Park development, operation, and management, which includes, but is not limited to, the following features:

- maintenance of existing recreation and operation facilities and Park grounds,
- restoration of existing properties that were acquired for habitat values,
- property acquisition that facilitate management of the Park, and
- implementation of the Interpretive Prospectus (1997) developed for the Park.

Evaluation

The existing conditions at the Park, including the lack of needed facilities, would continue if the General Plan were not adopted. Visitation to the Park is increasing every year and based on demographic trends, use of the Park would increase, but not at the level expected under the proposed General Plan due to the lack of facilities. There would be public pressure to expand facilities at the Park; however, without a general plan in place, the Department would not have the authority to develop or enhance facilities to respond to this demand and funding for recreation and interpretation improvements to enhance the visitor experience may be difficult to obtain. Recreational and interpretive improvements that could enhance the visitor experience at the Park's current level of use or anticipated future needs would not be developed. As a result, similar to the Maximum Restoration alternative (Alternative 2), this alternative would potentially avoid construction-related impacts associated with facility development that would occur under the proposed General Plan.

However, without the facility improvement to accommodate the existing visitor demand, as well as the projected increase in visitor use (although less than the proposed General Plan), sensitive natural and cultural resources may be expected to degrade over time because of overuse and lack of formalized management approaches. In other words, under the No Project Alternative, the Park's natural and cultural resources would not receive an increased level of protection, as prescribed under the General Plan. Comprehensive Park-wide resource management plans and policies for natural and cultural resources would not be implemented, including the development of a formal Cultural Resource Management Plan (CRMP).

Traffic and circulation improvements may not be accomplished under the No Project Alternative. Parking and circulation problems would continue as visitor use increases, creating issues with visitor capacity at the Park. Improvements to informational and directional signage would not occur.

Finally, this alternative would continue current patterns of property acquisition, including those properties that contain Important Farmland. Because the Department would not continue agricultural use of these properties under most circumstances, the No Project Alternative would result in significant and unavoidable impacts to agricultural resources, similar to the proposed General Plan.

4.8.2 Environmentally Superior Alternative

State CEQA Guidelines §15126(d)(2) states that "if the environmentally superior alternative is the no project alternative, the EIR shall also identify an environmentally superior alternative from among the other alternatives." In light of this guidance, the EIR discusses whether the no project alternative or one of the other plan alternatives would be environmentally superior. Alternatives considered here include the proposed General Plan, the three planning alternatives (Alternatives 1A, 1B, and 1C), the Maximum Restoration Alternative, and the No Project Alternative.

It is concluded that the Maximum Restoration Alternative is the environmentally superior alternative from the alternatives considered here. Although property acquisition would still likely proceed under this alternative, thus potentially resulting in the conversion of *Important Farmland* to non-agricultural uses (a significant and unavoidable impact under all of the alternatives), it would minimize ground-disturbing activities and construction- and service-related impacts associated with facility development, which would be the lowest out of all of the alternatives. However, this alternative fails to meet one of the fundamental objectives of the Department, which is to provide high-quality recreation to residents of the State. Passive recreation opportunities would be provided, in conjunction with habitat restoration activities, but due to the sensitivities associated with restoration efforts, these opportunities would be extremely limited. As a result, it was excluded from further consideration in the planning process.

The proposed General Plan was selected because it balances the interests of natural, cultural, and recreational resources at the Park. It is based on fundamental principles of land and resource stewardship, which are found throughout the goals and guidelines of the Plan. Moreover, it provides the framework to establish improved and expanded recreation opportunities to Park visitors, which is an integral consideration for State Parks planning.