

## **IV. ENVIRONMENTAL SETTING**

### **A. PHYSICAL SETTING AND EXISTING LAND USES**

The proposed project includes the properties located at 861, 953, and 791 Orcutt, and 3330, 3370, 3388, 3398, 3366, and 3360 Broad Street in the City of San Luis Obispo. These parcels, which encompass just under 18 total acres, include all of the land west of the Union Pacific Railroad (UPRR) tracks and north of Acacia Creek and its tributaries in the vicinity of the Broad Street and Orcutt Road intersection. Currently, this land is zoned C-S-S (Service-Commercial Special Considerations) and M-PD (Manufacturing Planned Development).

With the exception of the four residential lots in the southwest corner of the site, the parcels are presently vacant and unimproved, and appear to have been used primarily for agriculture in the past. The site topography is relatively level with a gradual slope from northeast to southwest (refer to Figure IV-1). Bishop Creek, Sydney Creek, Alrita-Carla Creek, and Escorp Drainage traverse the site, which has been impacted by the surrounding urban activity. These riparian corridors exhibit limited vegetative diversity due to seasonal water availability; however, they do provide valuable shade and cover for aquatic species. The remaining areas are covered with non-native annual grassland in addition to potential wetland depressions in the eastern portion of the site. Several mature eucalyptus and pepper trees are located along Orcutt Road and in the interior portions of the site, providing visual screening and habitat for nesting birds.

### **B. SURROUNDING LAND USES**

The majority of the area surrounding the site is zoned Service Commercial and Industrial (Manufacturing), which allows for a wide range of land uses within a relatively small area. These land uses include restaurants, gas stations, automobile sales, home furniture stores, office space, and light-industrial uses. In addition, there are scattered single- and multi-family residences and a homeless shelter (refer to Figure IV-2).

West of the project site, on the corner of Broad Street and Orcutt Road, is a new neighborhood-commercial development, the Village Marketplace Shopping Center, which contains various restaurant, retail, and service facilities. Alrita-Carla Creek, which runs along the southern property boundary, separates the proposed project from the light-industrial complex located off of Via Esteban, south of the project site. Land uses north of the project site (north of Orcutt Road) are diverse and include light industrial facilities, commercial retail buildings, single-family residences, a homeless shelter, and two gas stations. The UPRR tracks lie to the east of the project site, with single family and multifamily residences fronting the western boundary of the railroad right-of-way.

## C. CONSISTENCY WITH LAND USE PLANS AND POLICIES

### 1. Overview

CEQA Guidelines, subsection 15125(d) states, "the EIR shall discuss any inconsistencies between the proposed project and applicable general plans and regional plans." While CEQA requires a discussion of consistency with public plans, inconsistency does not necessarily lead to a significant impact. Inconsistency with public plans creates significant impacts under CEQA only when an adverse physical effect would result from the inconsistency.

All adverse physical effects resulting from any inconsistency are discussed in the appropriate environmental analysis sections of the EIR (refer to Section V, Biology, Transportation and Circulation, Air Quality, Noise, Hazards, and Aesthetics). Although the EIR analysis addresses the proposed project's consistency with applicable land use plans and policies, it is the responsibility of the City Council to make the final decision regarding consistency issues.

### 2. Relevant Land Use Plans

The following is a summary of relevant plans that are addressed within environmental issue area, as applicable.

#### a. City of San Luis Obispo General Plan

The City of San Luis Obispo General Plan articulates the long-term goals and policies for economic growth, proposed use of land, development of infrastructure, conservation of resources, preservation of open space, and related issues. Recognizing that General Plans ordinarily provide policy guidance on a range of issues rather than mandatory objective regulatory standards, the courts have acknowledged that decision-makers (i.e. the San Luis Obispo City Council) must weigh General Plan policies when applying them and that the law does not require every policy to be completely satisfied. The City's General Plan consists of the following elements:

##### 1) Land Use Element (September 2004)

The Land Use Element is the core of the General Plan and represents a "generalized blueprint for the future of San Luis Obispo." The Land Use Element sets forth a pattern for the orderly development of land within the City based on residents' preferences and on protection of natural resources. The Land Use Element outlines general goals that relate to the City's approach to planning, the environment, local society and the economy, and City form. In addition, there are more specific policies pertaining to growth management, conservation and development of residential neighborhoods, commercial and industrial development, downtown development, public and cultural facilities, resource protection, development within the airport area, and development within optional use and special design areas.

##### 2) Housing Element (March 2004)

The Housing Element provides the City's strategy for meeting the housing needs of its citizens, for preserving and enhancing neighborhoods, and for increasing affordable housing opportunities  
Insert Figure IV-1 Aerial Photograph of Project Vicinity



Aerial Photo: City/County Zone 9 – 2000  
 Contours: City/County Zone 9 – 2-meter LIDAR



AERIAL PHOTOGRAPH OF PROJECT VICINITY  
 FIGURE IV-1

Back of Figure IV-1



- 1 Silva's Oil Company (24-hour commercial fueling)
- 2 Warnes Paint
- 3 Single-family residential
- 4 CALA (home furnishings/décor)
- 5 J.A. Hunter (cabinetry)
- 6 Coastal Computer
- 7 Homeless shelter
- 8 Chevron Gas Station
- 9 The Crossroads Shopping Center
- 10 Jeff's Fine Auto
- 11 Ann Hall's Condominiums
- 12 Ridgepoint Condominiums
- 13 Single-family residential
- 14 Apartments
- 15 The Village Marketplace Shopping Center
- 16 Single-family residential
- 17 Single-family residential
- 18 Ashmore & Associates
- 19 Single-family residential
- 20 Acacia Creek Business Park (professional offices)
- 21 Single-family residential / Broad Street Automotive
- 22 San Luis Paints
- 23 Matt's Brake & Alignment
- 24 A Better Beep / Document Management Group
- 25 Cerro Caliente (winery)
- 26 Native Trails (warehouse retail)
- 27 College Auto
- 28 Studio 101 West
- 29 CALZYME Laboratories, Inc.
- 30 Tool Repair
- 31 Miscellaneous retail and light industrial
- 32 Taco Works Tortilla Chips
- 33 Unnamed building
- 34 CORE Home Health Care Services
- 35 Farmer Brothers Restaurant Services
- 36 Sport Works (retail)
- 37 Vacant property
- 38 Unnamed building
- 39 Vacant property
- 40 Air Pollution Control District
- 41 Hautespot (internet service provider) / Auto Helper / Wighten's Heating & Air Conditioning Restoration / Bret's Custom Furniture
- 42 ALASCO Rubber & Plastics Corporation
- 43 U.S Agriseeds / Seed Works / Daehfeldt
- 44 Cuesta Systems Corporation
- 45 PetDoors.com / Fabtee
- 46 Coastal Reprographic Services
- 47 Miscellaneous light industrial
- 48 Miscellaneous retail and light industrial
- 49 Multi-family residential
- 50 Single-family residential
- 51 Andre, Morris, and Buttery (law offices)
- 52 City right-of-way



Aerial Source: City/County Zone 9 - 2000

**SURROUNDING LAND USES  
FIGURE IV-2**

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for very-low, low, and moderate income persons and households. The Housing Element sets forth the goals, strategies, policies, and detailed programs necessary to address projected housing needs within the City.

### 3) Open Space Element/Conservation Element

#### (a) Open Space Element (January 1994)

The Open Space Element contains goals, policies, and programs that address management of the City's open space resources. The Element includes discussion on hills and mountains; creeks; marshes, seeps, vernal pools, lakes, ponds, and similar wetlands; grassland communities; plants and animals; hazard areas (including land instability, fire, flooding, airport, and seismic); historical and archaeological resources; mineral resources; agricultural lands; scenic resources; outdoor recreation; the urban edge; and, management of open space and greenbelt areas by the City.

#### (b) Conservation (July 1973)

The Conservation Element contains general goals and policies that pertain to City conservation efforts and long-term protection of the environment. This Element addresses water resources management, air resource conservation, soil conservation, plant and wildlife conservation, mineral and energy resource conservation, historic preservation, noise pollution, odor pollution, and visual pollution.

#### (c) Conservation and Open Space Element (Hearing Draft; August 2002)

A project is not required to conform with public plans and policies in the process of being formulated (*Chaparral Greens v. City of Chula Vista* (4<sup>th</sup> Dist. 1996)); however, it is desirable from a public policy perspective that a project is consistent with draft plans to the greatest extent possible, recognizing that draft policies may be further refined before they are ultimately adopted. Consistency with draft plans is desirable because such plans articulate a community's most current direction on future land use and development decisions.

The Conservation and Open Space Element combines and revises material from previous conservation, open space, and energy conservation elements, as well as parts of the land use and housing elements, and the scenic roadways section of the circulation element. It focuses on protecting assets associated with land that is not developed with urban uses: open space for farming, wildlife habitat, scenery, water supply and separation between cities. It also addresses air and water quality, energy sources and conservation, materials recycling, minerals, and cultural resources.

### 4) Circulation Element (November 1994)

In general, the Circulation Element describes how the City plans to provide for the transportation of people and materials within San Luis Obispo with connections to County areas and beyond. The element identifies transportation goals for the City, an overall transportation strategy, and transportation objectives. In addition, the Circulation Element identifies specific policies and programs that address traffic reduction, traffic management, scenic roadways, and other transportation management such as truck, air, and rail transportation and parking management.

#### 5) Noise Element (May 1996)

The Noise Element provides goals, policies, and standards for the management of noise in the City. Generally, the policies of the Noise Element seek to protect City residents from the harmful and annoying effects of exposure to excessive noise. Policies of the noise element establish standards for maximum allowable noise levels from transportation and stationary noise sources by land use category. Acceptable noise levels are provided for interior and exterior spaces.

#### 6) Safety Element (July 2000)

The Safety Element focuses on achieving acceptable levels of risk through decisions on land use and the form of development, with consideration for the closely related factor of transportation. It provides a broad survey of hazards in the San Luis Obispo area, and provides safety goals and policies that address hazards such as flooding, fire, earthquakes and other geologic hazards, hazardous materials, and airport hazards.

#### 7) Energy Conservation Element (adopted April 1981)

The Energy Conservation Element provides goals, policies and implementation guidelines to help increase energy efficiency in the City and to provide guidance relative to energy use, while protecting public health and the environment.

#### 8) Parks and Recreation Element and Master Plan (June 2001)

The Parks and Recreation Element and Master Plan provide guidance for the planning, development, and maintenance of community parks, sports and other recreation facilities, and recreation activities. The goals, policies, and programs in the element have been developed to address the recreation priorities identified by San Luis Obispo citizens as well as the City decision makers.

#### 9) Water and Wastewater Element (June 2004)

This element translates the Land Use Element's capacity for development into potential demand for water supply and wastewater treatment. The Water and Wastewater Element outlines how the City plans to provide adequate water and wastewater services for its citizens, consistent with the goals and policies of the other General Plan elements.

#### b. City of San Luis Obispo Zoning Regulations (June 2004)

The City of San Luis Obispo Zoning Regulations are the principal implementing tool for the General Plan. The Regulations refine the types of uses allowed within the City's various Zoning Districts, and establish development standards for each of those districts. Development within the Zoning Districts is governed by use, bulk, and parking requirements. Each zoning district regulates permitted uses; the size (bulk) of the building permitted in relation to the size of the lot; the maximum amount of building coverage allowed on the lot; the number of dwelling units permitted on the lot; the distance between the building and the street; the distance between the building and the lot line; the amount of parking required; and other requirements applicable to specific residential, commercial or manufacturing activities, including the size and placement of signs.



c. San Luis Obispo Airport Land Use Plan (July 2004)

The San Luis Obispo Airport Land Use Plan (ALUP), prepared by the Airport Land Use Commission, regulates land use within the Airport Land Use Planning Area. The Planning Area extends from a point approximately 1/2 mile southeast of the community of Edna on the southeast to West Oceanaire Drive in the Laguna Lake Subdivision on the northwest. To the north of the Airport, the Planning Area extends to Sinsheimer School and Edgewood Drive in the City of San Luis Obispo. To the southeast and east, the boundary of the Planning Area is close to the ridgeline of the high terrain.

The ALUP contains land use policies that pertain to noise, safety, airspace protection, and overflight for those lands within the planning area. In addition, it identifies land use compatibility and outlines specific land use provisions for the Margarita Area.

d. San Luis Obispo Community Design Guidelines

The Community Design Guidelines describe the City's expectations and preferences for the quality and character of new development. They are intended to guide development in order to ensure that the City maintains and enhances its character as a compact community with distinctive, attractive, pedestrian-oriented commercial areas and neighborhoods. The Guidelines are used by the Architectural Review Commission as a basis for evaluating the suitability and appropriateness of individual project design, to help achieve attractive and environmentally sensitive development.

e. Bicycle Transportation Plan

The policies in the Bicycle Transportation Plan apply to the planning, development, and maintenance of bicycle facilities and activities within the City of San Luis Obispo. The plan includes standards for bicycle facilities, it identifies new facilities, and it incorporates recommendations based on the successful experiences of other bicycle-friendly communities.

## D. CUMULATIVE STUDY AREA

### 1. CEQA Requirements

Section 15355 of the CEQA Guidelines defines "cumulative impact" as two or more individual effects that, when considered together, are considerable or will compound other environmental impacts. Cumulative impacts are changes in the environment that result from the incremental impact of development of the proposed project and all other nearby "related" projects. For example, the traffic impacts of two projects in close proximity may be insignificant when analyzed separately, but could have a significant impact when the projects are analyzed together.

Section 15130 of the CEQA Guidelines indicates that cumulative impacts shall be discussed when they are significant. The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as much detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness. The CEQA Guidelines state the following:

“Cumulative impacts include either option:

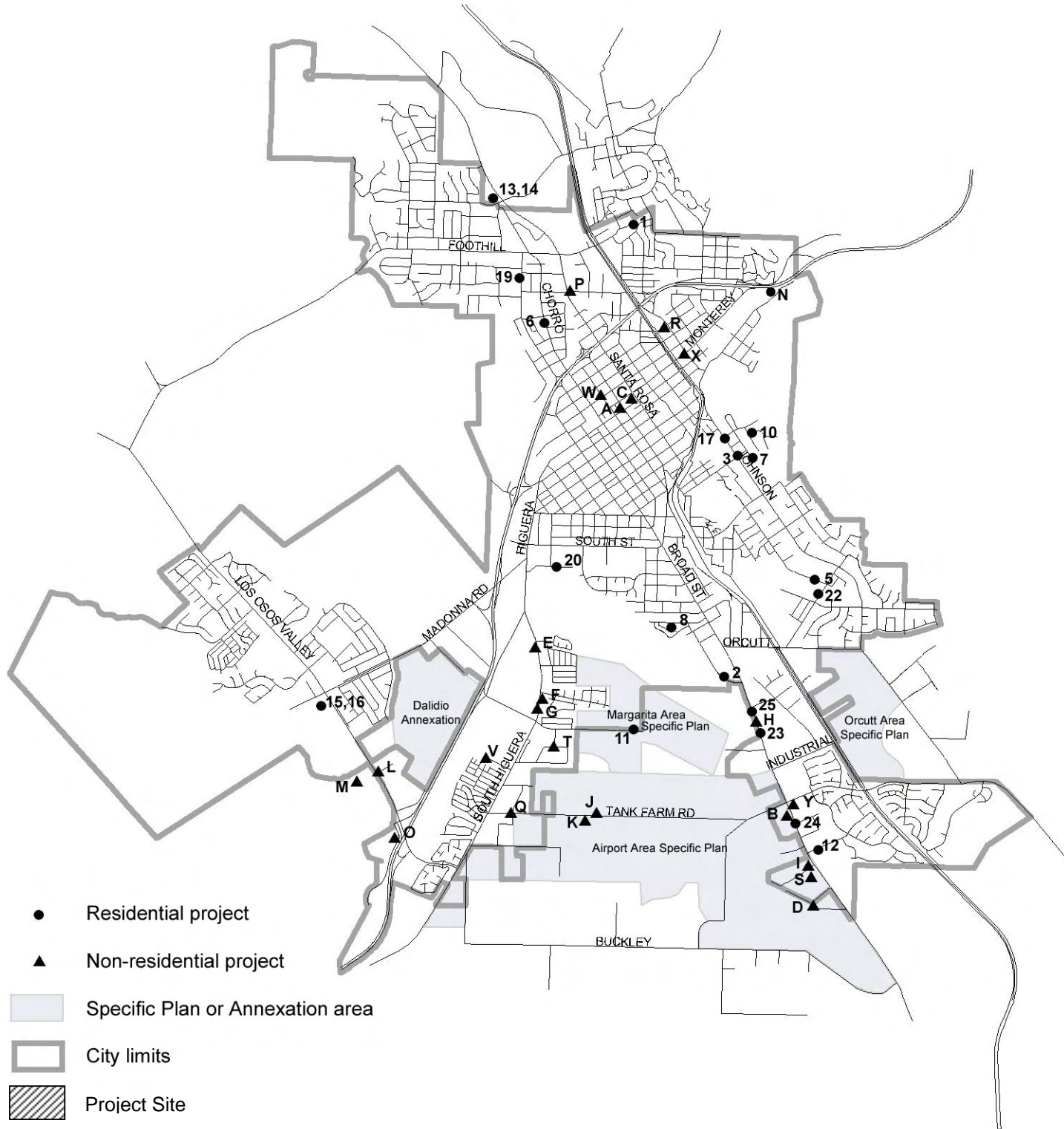
1. A list of past, present, and probable future projects producing related or cumulative impacts, including those projects outside the control of the agency, or
2. A summary of projections contained in an adopted general plan or related planning document or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the Lead Agency (Section 15130 (b) (1)).”

The discussion shall also include a summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available, and a reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable options for mitigating or avoiding any significant cumulative effects of a proposed project.

## **2. Cumulative Development Scenario**

For the purposes of this EIR, past, present, and reasonably anticipated future projects will be used for the cumulative analysis (option 1 under the CEQA Guidelines, section 15130).

Cumulative impacts are assessed in Section V, Environmental Impacts and Mitigation Measures under each resource issue, where appropriate. The cumulative analysis for each of the appropriate issue areas is based on a list of projects provided by the City of San Luis Obispo Community Development Department. These projects are in various stages of planning and development and are expected to contribute to cumulative impacts in the City of San Luis Obispo (refer to Figure IV-3). The specific environmental impacts of each individual project are not known at this time. Therefore, based on the total number of units, potential area of disturbance, and square feet of development represented in the Cumulative Development Scenario, several assumptions are used for each individual environmental issue area for determining the potential for cumulative impacts.



**RESIDENTIAL PROJECTS**

Key No.	Name/Description	Units/Size
1	Housing Complex	16 units
2	PUD	9 units
3	Senior Housing	40 units
4	Residential Subdivision	130 units
5	Judson Terrace- Senior Housing	32 units
6	Apartments (Student Housing)	16 units
7	Residential Subdivision	13 units
8	Stoneridge II Estates *	10 units
9	Prefumo Creek	27 units
10	Bowden Ranch	23 units
	Margarita SP Plan	880 units total
11	Part of Margarita Area	131 units
	Orcutt SP Plan	979 units
12	Stone Creek *	26 units
13	Cal Poly Faculty	165 units
14	Cal Poly Faculty	72 units
15	DeVaul Ranch South (Rancho Obispo) *	
	Apartments	77 units
	Homes	52 units
16	DeVaul Ranch North (de Tolosa) *	
	Apartments	122 units
	Homes	140 units
17	Johnson Avenue Townhomes	9 units
18	Courtyards on Walnut (Condos)	17 units
19	Senior Apartments	20 units
20	Bridge Street Housing Project	18 units
21	Bishop Knoll Housing	11 units
22	Multi - Family Development	7 units
23	Broad Street Mixed Use Project	
	Housing	86 units
	Commercial	32,000 sq. ft.
24	Roadhouse/Mixed Use *	15,293 sq. ft.
25	Mixed Use: Com & Res Project	

**NON-RESIDENTIAL PROJECTS**

Key No.	Name/Description	Units/Size
	Dalidio Annexation	
	Retail & Restaurants	615,000 sq. ft.
	Garden Center	37,899 sq. ft.
	Hotel (Larkspur)	150 rooms
A	Court Street Mixed Use (Copeland's)	
	Retail	37,000 sq. ft.
	Restaurant	9,000 sq. ft.
	Office	16,000 sq. ft.
B	Cannon Commercial Park	
	Office	102,000 sq. ft.
	Mini/Mart Gas Station	4,000 sq. ft.
C	County Government Center	97,000 sq. ft.
D	Rental Car Facility	25,000 sq. ft.
E	Car Care *	16,300 sq. ft.
F	Brezden (Commercial)	13,820 sq. ft.
G	Furniture Store *	8,500 sq. ft.
H	Auto Sales	
I	Auto Sales - Smith Volvo	
J	Kennedy Health Club *	47,000 sq. ft.
K	Retail/Admin (for Farm Supply) *	5 acres
L	Auto Dealership *	35,190 sq. ft.
M	Costco	140,000 sq. ft.
N	Motel Inn/Apple Farm	85,757 sq. ft.
O	Calle Joaquin Hotels	93 rooms 156 rooms
P	Sierra Vista Hospital	
	Hospital Addition	85,000 sq. ft.
	Office Building	45,000 sq. ft.
	Parking Structure	416 spaces
	Airport Area Specific Plan	
	Commercial/Office	170 acres
	Service Manufacturing	280 acres
B	Commercial Development w/ Office	3 Office Bldgs.
Q	Commercial & Industrial Buildings	2 New Bldgs.
R	Medical Office Building	
S	Aerovista Business Park *	75,000 sq. ft.
T	Office/Technology Building *	37,200 sq. ft.
U	Industrial, Office & Parking *	20,000 sq. ft.
V	Industrial	35,000 sq. ft.
W	Palm-Morro Parking Structure	
	Office	16,000 sq. ft.
	Parking Structure	243 spaces
X	Offices	4,500 sq. ft.
Y	Tank Farm Office Building	25,000 sq. ft.
Z	Ricardo Court Industrial - Manufacturing	35,000 sq. ft.

\* project completed

**CUMULATIVE PROJECTS  
FIGURE IV-3**



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## V. ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

The following impact analysis was developed based on the information provided in Sections I through IV. All impacts in the EIR have been classified according to the following criteria:

- Class I – Significant, unavoidable, adverse impacts: Significant impacts that cannot be effectively mitigated. No measures could be taken to avoid or reduce these adverse effects to insignificant or negligible levels.
- Class II – Significant, but mitigable impacts: These impacts are potentially similar in significance to those of Class I, but can be reduced or avoided by the implementation of mitigation measures.
- Class III – Less than significant impacts: Mitigation measures may still be required for these impacts as long as there is rough proportionality between the environmental problems caused by the project and the mitigation measures imposed on the project.
- Class IV – Beneficial impacts: Effects that are beneficial to the environment.

The term “significance” is used throughout the EIR to characterize the magnitude of the projected impact. For the purpose of this EIR, a significant impact is a substantial or potentially substantial change to resources in the local proposed project area or the area adjacent to the proposed project. In the discussions of each issue area, thresholds are identified that are used to distinguish between significant and insignificant impacts. To the extent feasible, distinctions are also made between local and regional significance and short- versus long-term duration.

Where applicable, mitigation measures have been identified to reduce project impacts to less than significant levels. CEQA requires that public agencies should not approve projects as proposed if there are feasible mitigation measures available which would substantially lessen the environmental effects of such projects (CEQA Guidelines §21002). Included with each mitigation measure are the plan requirements needed to ensure that the mitigation is included in the plans and construction of the project and the required timing of the action (e.g., prior to recordation of final map, prior to occupancy clearance, prior to issuance of building permits). For the purposes of this EIR, the timing requirement “prior to issuance of building permits” includes issuance of all City permits for grading and construction of the proposed project, including but not limited to grading permits, permits for public improvements, and construction permits.

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## A. BIOLOGICAL RESOURCES (BIO)

This section describes the biological resources found within the Four Creeks Rezoning Project. The EIR analysis evaluates the biological impacts of the Tumbling Waters, Creekstön, and Broad Street Parcels project components, and recommends mitigation measures where appropriate. The information presented below is a compilation of botanical and wildlife data gathered during biological surveys conducted by Morro Group biologists in September, October, and December of 2004, and from previous biological surveys prepared for projects located in the vicinity of the project site.

### 1. Existing Conditions

The project site consists of a disturbed field in a mixed-use, urban setting. Historically, the field was used for agriculture, but it has since been abandoned and has become dominated by annual grasses and weedy species growing in clay soils. Four drainages traverse the project site, mostly supporting riparian trees or shrubs.

#### a. Project Site Drainages

The project site is traversed by four drainages (refer to Figure BIO-1). Several of the drainages in and near the project site originate in the Santa Lucia Range foothills south of Highway 101, where the moderately sloped to relatively level landscape includes mostly urbanized areas. From east to west the drainages onsite include Alrita-Carla Creek, which is mapped as a USGS blue-line stream and a tributary to Sydney Creek; Escorp Drainage, which is a tributary to Sydney Creek; Sydney Creek, which is another USGS blue-line stream; and Bishop Creek. All four drainages onsite are ephemeral (convey storm flows). The creeks were dry during surveys in September and October 2004 but contained low, slow water flows in December 2004. Each of these drainages (excluding the eastern fork of Escorp Drainage) was determined to exhibit wetland characteristics in a Wetland Assessment of the project site (refer to Appendix C). These wetland characteristics included hydrophytic vegetation (perennial aquatic plants), hydric soils, and wetland hydrology. The Ordinary High Water Mark [(limit of U.S. Army Corps of Engineers (ACOE) jurisdiction)] was delineated for the drainages, based on physical characteristics such as bank lines, scour, shelving, vegetation changes, and debris accumulation.

Alrita-Carla Creek originates northeast of the project site, east of the intersection of Orcutt Road and Laurel Lane, and is directed into the project site via an arch culvert under the adjacent railroad tracks. This drainage is oriented roughly northeast to southwest, and meets Sydney Creek at the southern portion of the project site. The Ordinary High Water Mark (OHWM) of Alrita-Carla Creek is approximately 36 to 48 inches above the thalweg (the lowest point along a streambed). The tops of banks are approximately 10 to 15 feet high and the spacing of the banks ranges from 10 to 20 feet apart. Alrita-Carla Creek contained low water flows approximately 6 to 12 inches deep in December 2004.

Escorp Drainage conveys stormwater runoff from Orcutt Road and surrounding areas. A culvert under Orcutt Road directs runoff collected from drop inlets into the project site. The main section of the drainage is oriented north to south, with a northeast to southwest-oriented swale meeting the main section from the east. The swale conveys sheet flow runoff from the field in the eastern portion of the property toward the main section of Escorp Drainage. The OHWM of

the main section of Escorp Drainage is approximately 12 to 24 inches above thalweg. The tops of banks are approximately five feet high and the spacing of the banks ranges from 15 to 20 feet apart. The swale to the east is defined by the tops of its relatively low banks, which can also be considered the OHWM because no noticeable scour, terracing, or other hydrologic evidence occurs below the tops of the banks. The banks of the swale are approximately 36 to 60 inches high and spaced approximately 10 feet apart. The western fork of Escorp Drainage and sections downstream contained slow-flowing, 1 to 2-inch deep water in December 2004.

Sydney Creek originates in the foothills approximately one mile northeast of the project site and is directed under Orcutt Road via a large arch culvert. The creek traverses through the western third of the project site, oriented north to south. The OHWM of Sydney Creek is approximately 24 to 36 inches above thalweg. The tops of banks are approximately eight feet high and spaced approximately 20 to 30 feet apart. Sydney Creek contained low water flows approximately 1 to 2 inches deep with occasional stagnant pools in December 2004.

Bishop Creek originates north of the project site and a box culvert under Orcutt Road directs seasonal flows into the project site. This drainage is oriented north to south, and traverses the western boundary of the project site. The OHWM of Bishop Creek ranges from approximately 12 to 24 inches above thalweg upstream and 24 to 36 inches above thalweg downstream. The tops of banks are approximately four to six feet high and spaced approximately 10 to 15 feet apart. Bishop Creek contained stagnant, still water approximately 6 inches deep in December 2004.

#### b. Plant Communities and Wildlife Habitats

The study area is characterized by four predominant plant communities: riparian, wetlands, blue gum eucalyptus woodland, and ruderal vegetation/disturbed annual grassland. A map of the plant communities within the project development area is provided in Figure BIO-1. A list of plant and animal species observed during these surveys are included in Table BIO-1.

##### 1) Riparian

Riparian communities occur adjacent to existing flowing stream channels, along seasonally flooded arroyos, or in depressional areas located close to ground water. These communities often consist of one or more species of deciduous trees and/or shrubs and a variety of other shrubs and herbs, many of which are restricted to the banks and floodplains of these waterways. Occasionally the trees of riparian communities are tall and dense enough to form a riparian forest, while other times the trees are more scattered and smaller, forming riparian scrub habitat. The extent of the vegetation away from the watercourse is dependant on the size and nature of the banks and floodplains, the amount of water conveyed by the waterway, and the depth and lateral extent of standing water and/or subterranean aquifers.

Riparian areas occur along each of the drainages traversing the project site and consist of two types of riparian habitats: central coast cottonwood-sycamore riparian forest and central coast riparian scrub.





**LEGEND**

- Blue Gum Eucalyptus Woodland
- Central Coast Riparian Scrub
- approximate Riparian areas on Broad Street parcels
- Wetland habitat
- Other Waters Wetlands
- approximate Wetland areas on Broad Street parcels
- Cottonwood - dominant Riparian areas
- California walnut
- 20-foot creek setback (per City ordinance)
- Project boundaries (approximate)

Note: Creek setback line represents a 20-foot offset from the limits of CDFG jurisdiction, as described in the Wetland Assessment report (Morro Group, 2004)

Aerial Photo: City/County Zone 9 - 2000



**EXISTING CONDITIONS MAP  
FIGURE BIO-1**

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**TABLE BIO-1**  
**List of Species Observed on the Four Creeks Rezoning Project Site**  
**(September, October, and December 2004)**

Scientific name*	Common name	Family
<b>Plants</b>		
<i>Artemisia douglasiana</i>	mugwort	Asteraceae
<i>Asclepias</i> sp.	milkweed	Asclepiadaceae
<i>Avena</i> sp.*	wild oat	Poaceae
<i>Baccharis pilularis</i>	coyote brush	Asteraceae
<i>Brassica nigra</i> *	black mustard	Brassicaceae
<i>Bromus diandrus</i> *	ripgut brome	Poaceae
<i>Bromus hordeaceus</i>	soft chess brome	Poaceae
<i>Bromus madritensis</i> ssp. <i>rubens</i> *	red brome	Poaceae
<i>Chenopodium album</i>	lamb's quarters	Chenopodiaceae
<i>Cichorium intybus</i>	chicory	Asteraceae
<i>Convolvulus arvensis</i>	bindweed	Convolvulaceae
<i>Cortaderia jubata</i>	pampas grass	Poaceae
<i>Cyperus strigosus</i>	false nut-sedge	Cyperaceae
<i>Dipsacus sativus</i> *	Fuller's teasel	Dipsacaceae
<i>Eschscholzia californica</i>	California poppy	Papaveraceae
<i>Eucalyptus globulus</i> *	blue gum eucalyptus	Myrtaceae
<i>Foeniculum vulgare</i> *	fennel	Apiaceae
<i>Hemizonia congesta</i> ssp. <i>luzulifolia</i>	hayfield tarweed	Asteraceae
<i>Heteromeles arbutifolia</i>	toyon	Rosaceae
<i>Heterotheca grandiflora</i>	telegraph weed	Asteraceae
<i>Hordeum murinum</i> *	foxtail barley	Poaceae
<i>Juglans californica</i> var. <i>californica</i>	California black walnut	Juglandaceae
<i>Lactuca serriola</i> *	prickly lettuce	Asteraceae
<i>Lolium multiflorum</i> *	Italian ryegrass	Poaceae
<i>Pennisetum setaceum</i> *	fountaingrass	Poaceae
<i>Picris echioides</i>	bristly ox-tongue	Asteraceae
<i>Pipatherum miliaceum</i> *	smilo grass	Poaceae
<i>Platanus racemosa</i>	western sycamore	Platanaceae
<i>Polypogon monspeliensis</i> *	rabbitsfoot grass	Poaceae
<i>Populus fremontii</i> ssp. <i>fremontii</i>	Fremont cottonwood	Salicaceae
<i>Quercus agrifolia</i>	coast live oak	Fagaceae
<i>Rubus ursinus</i>	California blackberry	Rosaceae
<i>Rumex crispus</i> *	curly dock	Polygonaceae
<i>Salix lasiolepis</i>	arroyo willow	Salicaceae
<i>Salix laevigata</i>	red willow	Salicaceae
<i>Salsola tragus</i>	Russian thistle	Chenopodiaceae
<i>Sambucus mexicanus</i>	blue elderberry	Caprifoliaceae
<i>Schinus molle</i>	Peruvian peppertree	Anacardiaceae
<i>Xanthium strumarium</i>	cocklebur	Asteraceae
<i>Umbellularia californica</i>	California bay	Lauraceae
<i>Vinca major</i>	greater periwinkle	Apocynaceae
<b>Wildlife</b>		
<i>Sceloporus occidentalis</i>	Western fence lizard	
<i>Aphelocoma californica</i>	Western scrub jay	
<i>Mimus polyglottos</i>	Northern mockingbird	
<i>Calypte anna</i>	Anna's hummingbird	
<i>Melospiza melodia</i>	Song sparrow	
<i>Colaptes auratus</i>	Northern flicker	
<i>Felis domesticus</i> *	domestic cat (feral)	
* Denotes non-native.		

### (a) Central Coast Cottonwood-Sycamore Riparian Forest

Central coast cottonwood-sycamore riparian forest includes moderately closed broadleaved riparian forests dominated by western sycamore (*Platanus racemosa*) and Fremont cottonwood (*Populus fremontii* ssp. *fremontii*), with lesser amounts of coast live oak (*Quercus agrifolia*) (Holland 1986). The understory typically consists of dense thickets of shrubby willows (*Salix* spp.), coyote brush (*Baccharis pilularis*), and/or stinging nettle (*Urtica dioica*). These forests occur in floodplains of sub-perennial streams, usually with fairly coarse streambed substrate and seasonally variable depths to the water table. This forest gradually merges with arroyo willow (*Salix lasiolepis*) dominated types at lower elevations or along flatter stream reaches with finer-textured sediment and more constant depth to the water table (Holland 1986).

Central coast cottonwood-sycamore riparian forest occurs on the project site along the downstream section of Sydney Creek nearest to the Broad Street Parcels. This area is dominated by an overstory of Fremont cottonwood. The overstory is moderately open and the understory consists of relatively scattered low-growing vegetation dominated by annual grasses, mugwort (*Artemisia douglasiana*), and other forbs.

The riparian corridors supporting central coast cottonwood-sycamore riparian forest within the drainages on the project site are considered sensitive habitats by the California Department of Fish and Game (CDFG), and other public and private resource agencies. CDFG jurisdictional areas extend from channel thalwegs to the top of bank or outer edge of riparian vegetation (whichever is greater) have been quantified as part of the EIR analysis.

The riparian forest communities of the project site support moderate to excellent habitat for resident and migratory bird species. The combination of overstory and understory tree and shrub cover provides perching, foraging, and nesting habitat. These areas may also support shading and microclimate control for aquatic species during conditions when water is present.

### (b) Central Coast Riparian Scrub

Central coast riparian scrub consists of scrubby streamside thickets, varying from open to impenetrable, dominated by any of several willow species (Holland 1986). The understory commonly supports species such as California blackberry (*Rubus ursinus*) and stinging nettle. This community may change through ecological succession to any of several riparian woodland or forest types absent severe flooding disturbance. Central coast riparian scrub occurs on relatively fine-grained sand and gravel bars that are close to groundwater, at or near the mouths of most perennial and many intermittent streams of the South Coast Ranges.

Central coast riparian scrub is common along the drainages on the project site, with overstories dominated by arroyo willow. Arlita-Carla Creek is vegetated with a dense overstory of mainly arroyo willow with occasional red willow (*Salix laevigata*) and coast live oak, and an understory containing dense California blackberry and some toyon (*Heteromeles arbutifolia*).

The overstory of the western fork of Escorp Drainage is vegetated by sparse arroyo willow and the introduced Peruvian peppertree (*Schinus molle*), with an understory of cocklebur (*Xanthium strumarium*), bristly ox-tongue (*Picris echioides*), and various other forbs and grasses. The eastern fork of Escorp Drainage is a shallow swale dominated by Fuller's teasel (*Dipsacus*

*sativus*), with other species including curly dock (*Rumex crispus*), false nut-sedge (*Cyperus strigosus*), English plantain (*Plantago lanceolata*), and non-native annual grasses. Heading downstream, Escorp Drainage becomes more densely vegetated by arroyo willow, with mainly cocklebur (*Xanthium strumarium*) and rabbitsfoot grass (*Polypogon monspeliensis*) in the understory.

Along the upstream section of Sydney Creek, the riparian scrub community is dominated by arroyo willow, Peruvian peppertree, and the introduced pyroantha (*Pyracantha augustifolia*), with annual grasses and forbs in the understory. The upstream section of Bishop Creek supports riparian scrub dominated by arroyo willow, coast live oak, and blue elderberry (*Sambucus mexicana*), with a dense understory of California blackberry.

The riparian corridors supporting central coast riparian scrub within the drainages on the project site are considered sensitive habitats by the CDFG, and other public and private resource agencies. Riparian scrub communities onsite provide excellent habitat for bird species because the density and complexity of the vegetation layers offer plentiful foraging and nesting opportunities. These areas may also provide shading for aquatic species during conditions when water is present.

## 2) Wetlands

Wetlands are defined in the ACOE Wetlands Delineation Manual (Environmental Laboratory, 1987) as:

*“Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.”*

ACOE-defined wetlands are present if each of the following three criteria are observed:

- dominance by hydrophytic vegetation,
- presence of hydric soils, and,
- evidence of wetland hydrology.

ACOE-defined “other waters” are jurisdictional areas that are not wetlands. Other waters may include lakes, rivers, and streams; mudflats; and, sloughs.

Wetlands function to improve water quality, detain stormwater runoff, recharge groundwater, and provide wildlife habitats. Seasonal wetlands on the project site are largely characterized by the presence of annual, herbaceous hydrophytes along intermittent drainages and creek channels. The proposed project site was examined for areas with the potential to support wetland habitat, as defined by ACOE guidelines. This examination led to completion of a formal wetland delineation focusing on drainages within the project site. The delineation identified jurisdictional wetland areas of riverine, lower intermittent streambeds (Cowardin et al. 1979)

supporting vegetated streambeds and/or riparian habitat. Plant species observed in the streambeds as understory species have been described previously.

Alrita-Carla Creek, the western fork of Escorp Drainage, Sydney Creek, and Bishop Creek were all determined to support wetland conditions within the portions of the vegetated streambeds below the OHWM. The wetlands associated with drainages on the project site support low to moderate functions and values characteristic of relatively small watersheds subjected to seasonal inundation. The examination of the project site resulted in the identification of 34,091 ft<sup>2</sup> (0.78 ac) of jurisdictional ACOE wetlands within Alrita-Carla Creek, the western fork of Escorp Drainage, Sydney Creek, and Bishop Creek below the OHWMs. A total of 1,706 ft<sup>2</sup> (0.04 ac) of jurisdictional ACOE other waters were identified within the eastern fork of Escorp Drainage. No isolated wetland areas were identified in the vicinity of the project site.

Associated wetland areas within the drainage channels are regulated by the ACOE. Table BIO-2 quantifies ACOE jurisdictional areas (wetlands and other waters) for the Tumbling Waters and Creekstön project components. The proposed project will require monitoring during construction and mitigation for any loss of or impacts to these habitats.

**TABLE BIO-2**  
**ACOE and CDFG Jurisdictional Area Totals**

Jurisdictional Areas	Total Jurisdictional Areas Mapped in sq. ft. (acres)
<b>Tumbling Waters</b>	
ACOE Wetlands	23,167 sq. ft (0.53 ac)
ACOE Other Waters	1,706 sq. ft (0.04 ac)
CDFG Jurisdictional Areas	112,606 sq. ft (2.59 ac)
<b>Creekstön</b>	
ACOE Wetlands	10,924 sq. ft (0.25 ac)
ACOE Other Waters	None
CDFG Jurisdictional Areas	73,820 sq. ft (1.69 ac)
<b>Total ACOE Wetlands</b>	
	<b>34,091 sq. ft (0.78 ac)</b>
<b>Total ACOE Other Waters</b>	
	<b>1,706 sq. ft (0.04 ac)</b>
<b>Total CDFG Jurisdictional Areas</b>	
	<b>186,426 sq. ft (4.28 ac)</b>

### 3) Blue Gum Eucalyptus Woodland

Eucalyptus woodland communities include stands of any of one to several introduced eucalyptus species (*Eucalyptus* spp.). Blue gum eucalyptus (*Eucalyptus globulus*) is the most common eucalyptus species along the central coast. In some areas blue gum eucalyptus stands occur as planted windrows, and in other areas this species has spread into and replaced native plant communities (Holland and Keil 1995). Stands of blue gum eucalyptus may reach 150 feet tall, towering over other species native to the area.

Fog-drip and rainwater passing through the leaves and branches of blue gum eucalyptus carry dissolved chemicals that add to the substances leached from the fallen litter, producing allelopathic (or toxic) effects on understory vegetation. Very few other plant species are able to

grow in blue gum forested areas, and the understory is often sparse to nonexistent. Blue gum eucalyptus is considered an invasive plant and the California Exotic Pest Council lists blue gum eucalyptus as a widespread aggressive invader (CNPS 2004). While eradication efforts have been made to limit their spread in California, it is important to recognize that along the central coast these stands also provide overwintering roosting habitat for monarch butterflies (*Danaus plexippus*), a species whose natural roosting habitat has been dramatically reduced, but somewhat replaced by blue gum eucalyptus. Eucalyptus trees may also provide habitat for various bird species.

A stand of several blue gum eucalyptus trees occurs along Sydney Creek, in an area occasionally interspersed with central coast riparian scrub. The sparse understory in this area consists of mostly annual grasses and few forbs.

#### 4) Ruderal Vegetation/Disturbed Annual Grassland

Ruderal vegetation (disturbed habitat) is usually found in areas that have been significantly altered by agriculture, construction, landscaping, or other types of land-clearing activities. Ruderal habitats often occur in abandoned agricultural fields, along roadsides, near developments, and in other areas experiencing severe ground surface disturbance. All areas of the project site outside of the riparian corridors of the drainages support ruderal vegetation and/or disturbed annual grassland. Disturbance sources on the project site include foot-traffic and occasional vehicle encroachment, with trash and other refuse deposited in some areas. Plants that colonize disturbed sites are commonly introduced exotic species; however, some native species, such as coyote brush, turkey mullein (*Eremocarpus setigerus*), and telegraph weed (*Heterotheca grandiflora*) also have these tendencies. All of these can tolerate and grow in disturbed areas.

Areas with ruderal vegetation/disturbed annual grassland on the project site are dominated by red brome (*Bromus madritensis* ssp. *rubens*) and Italian rye-grass (*Lolium multiflorum*), with Fuller's teasle (*Dipsacus sativus*), chicory (*Cichorium intybus*), and telegraph weed as abundant associates. Other species tolerant of disturbance in ruderal and grassland areas onsite include bindweed (*Convolvulus arvensis*), fennel (*Foeniculum vulgare*), wild oats (*Avena* sp.), lamb's quarters (*Chenopodium album*), prickly lettuce (*Lactuca seriola*), and perennial mustard (*Hirschfeldia incana*).

Areas supporting ruderal vegetation/disturbed annual grassland typically do not offer high quality wildlife habitat. Wildlife found in ruderal areas includes species tolerant of disturbance, such as California ground squirrel (*Spermophilus beecheyi*), desert cottontail (*Sylvilagus auduboni*), and western fence lizard (*Sceloporus occidentalis*). Several western fence lizards were observed in disturbed areas on the project site during surveys.

#### c. Sensitive Species

For the purposes of this EIR, sensitive species are defined as plants and animals that are:

- Species afforded protection under the Federal Endangered Species Act (ESA) and/or California Endangered Species Act (CESA);

- Species proposed for listing under the ESA and/or CESA;
- Species afforded protection under sections of the California Fish and Game Code;
- Birds afforded protection under the Migratory Bird Treaty Act of 1918;
- Species considered either Federal Species of Concern or California Special Concern species;
- Species that meet the definitions of rare or endangered species under CEQA;
- Plants considered sensitive by the California Native Plant Society;
- Species considered sensitive by local resource groups/agencies or the scientific community; and,
- Sensitive habitats including wetlands and other habitats listed by either the California Department of Fish and Game (Holland 1986) or the CNDDDB (2004) as meriting protection or further study due to their rarity or value.

The California Natural Diversity Data Base (CNDDDB 2004) has occurrence records for several special-status plant and wildlife species within the San Luis Obispo 7.5-minute quadrangle. Additional species have the potential to occur in the vicinity of the project site based on specific habitat types and their potential to harbor sensitive taxa, and previous studies in the vicinity. Three sensitive habitats (coastal and valley freshwater marsh, northern interior cypress forest, and serpentine bunchgrass) were also identified during the CNDDDB search as occurring within the San Luis Obispo quadrangle but were determined to be absent from the project site. Table BIO-3 lists the name and legal status of all sensitive species considered as a result of the literature search and surveys. Based on habitat types and site conditions observed during field surveys, only four plant species and six wildlife species had the potential to occur within proposed activity areas.

### 1) Sensitive Plants

A total of 24 sensitive plant species were identified during the literature search for consideration; however, only four sensitive plant species were determined to have suitable habitat conditions within areas of the proposed project (refer to Table BIO-3). These four include Obispo Indian paintbrush (*Castilleja densiflora ssp. obispoensis*), Southern California Black Walnut (*Juglans californica* var. *californica*), Jones's Layia (*Layia jonesii*), and Adobe Sanicle (*Sanicula maritima*), which are discussed below in greater detail.

Most plant species were eliminated from consideration based on lack of suitable plant communities and/or soils onsite. Based on the timing of the survey efforts for this EIR, additional surveys are required to determine presence or absence of sensitive plant species prior to ground disturbance.

#### (a) Obispo Indian Paintbrush (*Castilleja densiflora ssp. obispoensis*)

Obispo Indian paintbrush is an annual herb in the Scrophulariaceae family that is a California and San Luis Obispo County endemic. It occurs in valley and foothill grassland habitats. This species blooms in April. The California Native Plant Society (CNPS) considers this species as very rare (List 1B, 2-2-3 R-E-D code).



**TABLE BIO-3  
Special-Status Plant and Wildlife Species Considered**

Scientific Name	Common Name	Legal Status Federal/State/CNPS/R-E-D
<b>Plants</b>		
<i>Arctostaphylos cruzensis</i>	Arroyo de la Cruz manzanita	--/1B/2-2-3
<i>Arctostaphylos luciana</i>	Santa Lucia manzanita	--/1B/2-2-3
<i>Arctostaphylos morroensis</i>	Morro manzanita	FT/1B/2-3-3
<i>Astragalus didymocarpus</i> var. <i>milesianus</i>	Miles's milk-vetch	--/1B/2-2-3
<i>Calochortus obispoensis</i>	San Luis mariposa lily	--/1B/2-2-3
<i>Calystegia subacaulis</i> ssp. <i>episcopalis</i>	Cambria morning-glory	--/1B/3-2-3
<i>Carex obispoensis</i>	San Luis Obispo sedge	--/1B/2-2-3
<i>Castilleja densiflora</i> ssp. <i>obispoensis</i>	Obispo Indian paintbrush	--/1B/2-2-3
<i>Centromadia parryi</i> ssp. <i>congdonii</i>	Congdon's tarplant	--/1B/2-2-3
<i>Chlorogalum pomeridianum</i> var. <i>minus</i>	dwarf soaproot	--/1B/2-2-3
<i>Chorizanthe breweri</i>	Brewer's spineflower	--/1B/3-1-3
<i>Cirsium fontinale</i> var. <i>obispoense</i>	Chorro Creek bog thistle	FE/SE/1B/3-2-3
<i>Dudleya abramsii</i> ssp. <i>bettinae</i>	San Luis Obispo serpentine dudleya	--/1B/3-2-3
<i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i>	Blochman's dudleya	--/1B/2-3-2
<i>Eryngium aristulatum</i> var. <i>hooveri</i>	Hoover's button-celery	--/1B/3-3-3
<i>Fritillaria viridea</i>	San Benito fritillary	--/1B/2-2-3
<i>Horkelia cuneata</i> ssp. <i>puberula</i>	mesa horkelia	--/1B/2-3-3
<i>Juglans californica</i> var. <i>californica</i> <sup>1</sup>	southern California black walnut	--/4/1-2-3
<i>Layia jonesii</i>	Jones's layia	--/1B/3-2-3
<i>Sanicula maritima</i>	adobe sanicle	--/1B/3-3-3
<i>Senecio aphanactis</i>	rayless ragwort	--/2/3-2-1
<i>Sidalcea hickmanii</i> ssp. <i>anomala</i>	Cuesta Pass checkerbloom	--/SR/1B/3-2-3
<i>Streptanthus albidus</i> ssp. <i>peramoenus</i>	most beautiful jewel-flower	--/1B/2-2-3
<i>Trifolium depauperatum</i> var. <i>hydrophilum</i>	saline clover	--/1B/3-2-3
<b>Wildlife</b>		
<i>Accipiter cooperii</i>	Cooper's hawk	--/CSC/--/1--
<i>Agelaius tricolor</i>	tricolored blackbird	FSC/CSC/--/1--
<i>Ambystoma californiense</i> <sup>2</sup>	California tiger salamander	FT//CSC/--/1--
<i>Anniela pulchra pulchra</i>	silvery legless lizard	FSC/CSC/--/1--
<i>Antrozous pallidus</i>	pallid bat	--/CSC/--/1--
<i>Athene cunicularia</i>	burrowing owl	FSC/CSC/--/1--
<i>Coccyzus americanus occidentalis</i>	western yellow-billed cuckoo	FC/SE/--/1--
<i>Clemmys marmorata pallida</i>	southwestern pond turtle	FSC/CSC/--/1--
<i>Danaus plexippus</i>	monarch butterfly	--/1--/1--
<i>Elanus leucurus</i>	white-tailed kite	FSC/FP/--/1--
<i>Eremophila alpestris actia</i>	California horned lark	--/CSC/--/1--
<i>Helminthoglypta walkeriana</i>	Morro shoulderband snail	FE/--/1--/1--
<i>Lanius ludovicianus</i>	loggerhead shrike	--/CSC/--/1--
<i>Linderiella occidentalis</i>	California linderiella	FSC/--/1--/1--
<i>Oncorhynchus mykiss irideus</i>	steelhead - south-central California coast esu	FT/CSC/--/1--
<i>Phrynosoma coronatum (frontale)</i>	coast (California) horned lizard	--/CSC/--/1--

Scientific Name	Common Name	Legal Status Federal/State/CNPS/R-E-D
<i>Rana aurora draytonii</i>	California red-legged frog	FT/CSC/--/--
<i>Taricha torosa torosa</i>	Coast Range newt	--/CSC/--/--
<i>Thamnophis hammondi</i>	two-striped garter snake	--/CSC, P/--/--
<p><sup>1</sup> Observed during surveys.</p> <p><sup>2</sup> Based on habitat type and site conditions, CTS is not anticipated to occur within project activity areas. It is included on this list because of its prevalence throughout the region.</p> <p><b>Wildlife and Plant Codes:</b>                      FE: Federally Endangered                      FT: Federally Threatened                      FSC: Federal Species of Concern                      SE: California State Endangered                      SR: California rare                      CSC: California Special Concern Species                      FP: Fully Protected by CDFG</p> <p><b>Plants:</b>                      CNPS:                      List 1B = rare, threatened, or endangered in California and elsewhere.                      List 4 = limited distribution (watch list)                      CNPS Rare-Endangerment-Distribution (RED):                      Rare: 1) = rare, but found in sufficient numbers and distributed widely enough that the potential for extinction is low at this time;                      2) distributed in a limited number of occurrences, occasionally more if each occurrence is small; 3) distributed in one to several highly restricted occurrences, or present in such small numbers that it is seldom reported.</p> <p>CNPS R-E-D (continued):                      Endangerment: 1) not endangered; 2) endangered in a portion of its range; 3) endangered throughout a portion of its range.                      Distribution: 1) more or less widespread outside California; 2) rare outside California; 3) endemic to California.</p>		

The CalFlora Occurrence Database (2004) catalogs six historical occurrences of this species within San Luis Obispo County, but the CNDDDB (2004) overlay for the San Luis Obispo quadrangle does not list Obispo Indian paintbrush within the project site. The CNDDDB indicates the nearest occurrence of Obispo Indian paintbrush as approximately 1.6 miles northeast of the proposed project. This species was not observed during the site surveys, which occurred after the typical April blooming period. Marginal habitat for this species is present within the disturbed annual grasslands of the proposed project site.

**(b) Southern California Black Walnut (*Juglans californica* var. *californica*)**

Southern California black walnut is a tree in the Juglandaceae family that is endemic to California. It occurs in chaparral, foothill woodland, and coastal sage scrub communities. This species blooms from March through May. The CNPS considers this species as having limited distribution (List 4, 1-2-3 R-E-D code).

The CalFlora Occurrence Database catalogs four historical occurrences of this species within San Luis Obispo County. Although the CNDDDB does not include any records for this species within the project site (2004), at least two individuals of this species were observed growing in the riparian corridors of Alrita-Carla Creek and Sydney Creek.

**(c) Jones’s Layia (*Layia jonesii*)**

Jones’s layia is an annual herb in the Asteraceae family that is endemic to California and found in Monterey and San Luis Obispo Counties. It occurs in chaparral, and valley and foothill grassland (clay or serpentinite) habitats. This species blooms from March through May. The CNPS considers this species as very rare (List 1B, 3-2-3 R-E-D code).

The CalFlora Occurrence Database catalogs 15 historical occurrences of this species within San Luis Obispo County, but the CNDDDB (2004) overlay for the San Luis Obispo quadrangle does not list Jones's layia within the project site. The CNDDDB identifies the nearest occurrence of Jones's layia approximately 2.7 miles west of the proposed project at Laguna Lake Park. This species was not observed during the site surveys, which occurred after the typical March through May blooming period. Marginal habitat for this species is present within the proposed project site, which occurs in annual grasslands on clay soils.

(d) Adobe Sanicle (*Sanicula maritima*)

Adobe sanicle is a perennial herb in the Apiaceae family that is endemic to California and found in San Luis Obispo, Monterey, Alameda, and San Francisco Counties. It is found within chaparral, coastal prairies, meadows and seeps, and valley and foothill grassland (within clay or serpentinite soils). This species blooms from February through May. The CNPS considers this species as very rare and seriously endangered in California (List 1B, 3-2-3 R-E-D code).

The CalFlora Occurrence Database catalogs 15 historical occurrences of this species within San Luis Obispo County, but the CNDDDB (2004) overlay for the San Luis Obispo quadrangle does not list adobe sanicle within the project site. The CNDDDB overlays for the San Luis Obispo and Morro Bay South quad maps identify the nearest occurrence of adobe sanicle approximately 2.7 miles west of the proposed project at Laguna Lake Park. This species was not observed during the site surveys, which occurred after the typical February through May blooming period. Marginal habitat for this species is present within the proposed project site, which occurs in annual grasslands on clay soils.

2) Sensitive Wildlife

A total of 19 sensitive wildlife species were identified during the literature search for consideration. Six sensitive wildlife species were determined to have suitable habitat conditions within areas of the proposed project. Most wildlife species were eliminated from consideration based on lack of suitable habitat conditions onsite.

Several of the wildlife species included in Table BIO-3 occur in aquatic and/or riparian habitats but were eliminated from consideration due to the seasonal nature of the drainages onsite, which are not expected to convey flows long enough to allow for the colonization of, or migration into, these areas by aquatic species.

Descriptions of the six sensitive wildlife species and their potential for occurrence on the project site are included below. In addition, the discussion includes description of steelhead, south-central California coast steelhead (*Oncorhynchus mykiss irideus*), California red-legged frog (*Rana aurora draytonii*) and southwestern pond turtle (*Clemmys marmorata pallida*), as requested by the City of San Luis Obispo during the EIR scoping process.

(a) Monarch Butterfly (*Danaus plexippus*)

The monarch butterfly is an easily recognized orange and black butterfly that aggregates in large groups, participating in lengthy migrations. Monarchs from west of the Rocky Mountains spend the winter along the California coast. Overwintering sites occur in dense, wind-protected tree

groves [eucalyptus (*Eucalyptus* spp.), Monterey pine (*Pinus radiata*), Monterey cypress (*Cupressus macrocarpa*)] near the coast from northern Mendocino to Baja California (City of San Luis Obispo 2004a; CNDDDB 2004). Groves shelter the butterflies from freezing temperatures and gusty winds. Monarch butterflies are typically attracted to groves along coastal areas of California that feature high moisture content and filtered sunlight. Typical monarch butterfly overwintering in the City of San Luis Obispo occurs from November to March (City of San Luis Obispo 2004a).

The monarch butterfly life cycle to adulthood is completed in 30 to 40 days. Milkweed (*Asclepias* spp.) serves as the host plant for monarch butterfly larvae. Eggs are laid on the undersides of leaves and hatch three to six days after females deposit them. Caterpillars reach full size at about 14 days, crawl away from the host plant, pupate, and metamorphose in about 14 days. Adults mate within four to six days after emerging from their chrysalis.

While the project site is outside of the Coastal Zone and is not a currently documented CDFG overwintering site, several monarch butterflies were observed flying around the stand of blue gum eucalyptus along Sydney Creek during the December 2004 site surveys. The site may have winter roosting potential and should be fully examined for habitat suitability. Monarch butterfly winter roosting habitat is considered rare under CEQA Guidelines Section 15380 because of declining availability. The City of San Luis Obispo conservation strategy is to protect stands of eucalyptus trees known to be monarch butterfly overwintering sites, and to initiate milkweed management control strategies after monarch butterflies have left roosting sites (City of San Luis Obispo 2004a).

Monarch butterfly roosting habitat may occur in the stand of blue gum eucalyptus along the Sydney Creek riparian corridor. Milkweed (*Asclepias* sp.) host plants for monarch butterfly larvae are also present in the annual grasslands onsite. The stand of blue gum eucalyptus may provide wind protection during the winter roost season.

#### (b) Cooper's Hawk (*Accipiter cooperii*)

The Cooper's hawk is a fairly large hawk that ranges throughout the United States and is widely distributed throughout California. This species is a resident of San Luis Obispo County, nesting and foraging in and near deciduous riparian areas. Cooper's hawk is rarely found in areas without dense tree stands or patchy woodland habitat. Breeding occurs March to August, peaking May to July. Incubation lasts about 36 days, and young are independent eight weeks thereafter (Baicich and Harrison 1997). The Cooper's hawk is considered a California Species of Concern, based on a reduction in breeding numbers in recent years. These reductions are reportedly due to destruction of lowland riparian habitat and direct/indirect human disturbance at nest sites. This species is afforded protection under the Migratory Bird Treaty Act of 1918 and section 3503 of the California Fish and Game Code (nesting birds).

No Cooper's hawks were observed during biological surveys of the site; however, suitable nesting and foraging habitat for Cooper's hawk occurs along the riparian corridors of the drainages traversing the project site.

(c) Western Yellow-Billed Cuckoo (*Coccyzus americanus occidentalis*)

The western yellow-billed cuckoo is a slender brown bird with white underparts. Although the cuckoo nests in walnut and almond orchards in California, its natural nesting habitat is in cottonwood-willow riparian forest. It usually arrives from South American wintering areas in June, and departs by late August or early September. The twig nest is typically constructed on a horizontal branch of a tree willow in a location hidden from view from the ground or surrounding trees. In California, most eggs are laid mid-June to mid-July. Clutch size averages three to four eggs (range one to five). Both sexes incubate eggs and care for young. Incubation lasts nine to 11 days and young may leave the nest at six to nine days. Food items are typically large insects.

Although the project site supports suitable cottonwood and willow riparian habitat, no western yellow-billed cuckoo were observed or heard in or near the project site. The most recent nearby CNDDDB occurrence record for the species is a 1932 egg set collection by Santa Barbara Natural History Museum from an unspecified location in San Luis Obispo County (CNDDDB 2004). A recent posting on the San Luis Obispo County Birding message board indicated that an individual yellow-billed cuckoo was heard in the vicinity of “western part of Atascadero” along Highway 41 (Edell 2004). However, biologists have reservations regarding the accuracy of this recent record (T. Edell, personal communication, September 29, 2004). There are no known recent nesting records in San Luis Obispo County and there are no known breeding locations outside of the currently known breeding locations, none of which occur in San Luis Obispo County. No other yellow-billed cuckoo observations in or near the project site are known.

Although there is potential yellow-billed cuckoo habitat onsite, there is almost no chance of occurrence of this species because the current nesting range is restricted to areas outside of San Luis Obispo County.

(d) White-Tailed Kite (*Elanus leucurus*)

White-tailed kites are yearlong residents ranging throughout valley and coastal lowlands in California, most commonly near agricultural areas. Nesting and roosting occurs in dense broad-leaved deciduous groves of trees. Breeding occurs from February to October, peaking in May to August. Eggs (typically 4 to 5) are incubated for about 28 days with the young subsequently fledging 35 to 40 days thereafter. White-tailed kites prey chiefly on voles and other small diurnal mammals, and occasionally on birds, insects, amphibians, and reptiles. This species has Fully Protected status by California, and the nesting life stage is considered sensitive.

No white-tailed kites were observed during biological surveys of the site; however, suitable nesting and foraging habitat for white-tailed kite occurs along the riparian corridors of the drainages traversing the project site and there is the potential for white-tailed to occur.

(e) California Horned Lark (*Eremophila alpestris actia*)

The California horned lark is a medium-sized bird (approximately 7 to 8 inches long) with two small tufts of black feathers or “horns” from which its name is derived. The historical range of the subspecies was from northern coastal California to Mexico and east into the Central Valley (Grinnel and Miller 1986). The current distribution is uncertain. California horned lark pairs

breed between March and July. They nest solitarily, and females lay between 2 to 5 eggs in a cup-shaped depression on open ground. Incubation typically takes 10 to 14 days and young are ready to leave the nest at 9 to 12 days, flying 3 to 5 days following (Harrison 1978). Nests are built in depressions on the open ground. California horned lark prefer grasslands and open areas with low, sparse herbaceous vegetation, usually where trees and large shrubs are absent. California horned larks walk along the ground searching for food, mostly feeding on insects, snails, and spiders during the breeding season and adding grass and forb seeds and other plant matter to their diet during other seasons (Bent 1942). This species is recognized as a California Special Concern species.

No California horned larks were observed during biological surveys of the site; however, marginal nesting and foraging habitat for California horned lark occurs in association with disturbed annual grassland habitat on the project site.

(f) Loggerhead Shrike (*Lanius ludovicianus*)

The loggerhead shrike is a medium-sized passerine (perching) bird that ranges from southern Canada to southern Mexico and from the Gulf States west into California. This species prefers open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches. Highest densities occur in open-canopied valley foothill hardwood, valley foothill hardwood-conifer, valley foothill riparian, pinyon-juniper, juniper, desert riparian, and Joshua tree habitats. The loggerhead shrike is the only known predatory songbird. The species preys on vertebrates and invertebrates, and often impale their prey on barbed wire or trees because they lack talons or claws. Their diet consists primarily of insects, amphibians, and small mammals and birds. In California, horned larks lay 4 to 8 eggs from March into May, incubation lasts 14-15 days and young become independent in July or August (Zeiner et al. 1990). Young are tended by both parents and leave the nest at 18-19 days (Zeiner et al. 1990). This species is recognized as a California Special Concern species.

No loggerhead shrikes were observed during biological surveys of the site; however, marginal foraging habitat for loggerhead shrike exists occurs in association with disturbed annual grassland habitat on the project site and nesting habitat may be supported along the riparian corridors of the drainages traversing the project site.

(g) South-Central California Coast Steelhead (*Oncorhynchus mykiss irideus*), California Red-Legged Frog (*Rana aurora draytonii*), and Southwestern Pond Turtle (*Clemmys marmorata pallida*)

Habitat assessments were conducted for south-central California coast steelhead, California red-legged frog, and southwestern pond turtle.

All populations of steelhead occurring within the south-central California coast evolutionarily significant unit region were listed as federally threatened in 1997 (USFWS 1998). This region is defined as the geographic region north of the Santa Maria River in Santa Barbara County, northward to and including the Pajaro River and its tributaries in Santa Cruz County. Steelhead are also considered a California Special Concern species by the CDFG. Optimal habitat for steelhead throughout its entire range on the Pacific Coast can generally be characterized by clear,

cool water with abundant instream cover (i.e., submerged branches, rocks, logs), well-vegetated stream margins, relatively stable water flow, and a 1:1 pool-to-riffle ratio (Raleigh et al. 1984). Steelhead along the central coast of California begin migrating up coastal drainages following the first substantial rainfall of the fall season. Spawning typically occurs during the spring in riffle areas that consist of clean, coarse gravels.

The California red-legged frog was listed as federally threatened by the U.S. Fish and Wildlife Service (USFWS) in 1996 and is considered a California Special Concern species by the CDFG. The species occurs in various habitats during its life cycle, and breeding areas include lagoons, streams, and ponds. California red-legged frogs prefer aquatic habitats with little or no flow, the presence of surface water to at least early June, and surface water depths to at least 0.7 meters (2.3 feet) (Jennings and Hayes 1994). The largest densities of California red-legged frogs are typically associated with dense stands of overhanging willows and an intermixed fringe of sturdy emergent vegetation. Although the species can inhabit ephemeral streams or ponds, populations typically cannot be maintained in ephemeral streams in which all surface water disappears. California red-legged frog typically breed from January to July, with peak breeding occurring in February. The eggs are usually laid on emergent vegetation, and hatched tadpoles require 11 to 20 weeks of standing water to metamorphose.

The southwestern pond turtle is designated as a Federal Species of Concern, and is considered a California Special Concern species by the CDFG. Pond turtles live where water persists year-round in ponds along foothill streams or in broad washes near the coast. Pond turtles prefer quiet waters of ponds, lakes, streams, and marshes. The ponds favored by these turtles typically support emergent and floating vegetation such as cattails and algal mats, and they typically bask on half-submerged logs, rocks, or flat shorelines close to the edge of water. Mostly aquatic, the pond turtle only leaves its aquatic site to reproduce, estivate (become dormant in the summer), and over-winter. Pond turtles may over-winter on land or in water, but may remain active in water during the winter season. In streams, pond turtles typically inhabit the largest and deepest pools (3.0 to 5.0 feet deep) containing large amounts of basking sites, including fallen trees and boulders. These turtles can occasionally be found crawling across creek riffles or traversing open fields during transient movements. Upland nesting sites are required near the aquatic site, and nests are typically located in open, clay or silt slopes to ensure proper incubation temperature (Jennings and Hayes 1994). Nesting sites may be more than 400 meters from the aquatic site, but most nests are within 200 meters (Jennings and Hayes 1994).

As previously described, all drainages within the project site are ephemeral, containing water only seasonally. Water was observed in the drainages within the project site during December 2004 site surveys, but these included low flows and often stagnant water conditions, and no fish or amphibian life were observed. Although several of the drainages support overhanging riparian cover and streambed vegetation, the lack of permanent water onsite does not support suitable habitat conditions for steelhead, California red-legged frog, or southwestern pond turtle. Sydney Creek eventually leads to San Luis Obispo Creek (a known steelhead stream) to the southwest via a levee system. It is unknown if steelhead can reach the stream sections from San Luis Obispo Creek to the project site. In a previously issued concurrence letter dated October 26, 1998, NOAA Fisheries concurred with ACOE's determination that the project is not likely to adversely affect federally threatened steelhead, provided that construction is conducted during

the dry season, erosion control methods are utilized, and any vegetation removed during construction is replaced (NOAA Fisheries 1998). Another site assessment report for the federally threatened California red-legged frog was conducted in 1998 for the Tumbling Waters property with a determination that there was no suitable habitat onsite (refer to Appendix D). No California red-legged frogs were observed during the 1998 site assessment or during the 2004 site surveys for this EIR. The nearest known California red-legged frog CNDDDB record is 2.5 miles northwest of the project site in Reservoir Canyon (CNDDDB 2004). The ephemeral conditions of the drainages onsite and disturbed upland conditions do not support suitable habitat for the highly aquatic southwestern pond turtle.

The ephemeral drainages do not likely support suitable habitat conditions for other highly aquatic species such as Coast Range newt (*Taricha torosa torosa*) and two-striped garter snake (*Thamnophis hammondi*). There is no vernal pool habitat for the freshwater invertebrate California linderiella (*Linderiella occidentalis*) or California tiger salamander (*Ambystoma californiense*), and there are very few burrows in annual grasslands onsite that would provide potential estivation habitat for California tiger salamander.

## 2. Regulatory Setting

### a. Federal Policies and Regulations

#### 1) Section 404 of the Clean Water Act of 1977

Regulatory protection for water resources throughout the United States is under the jurisdiction of the ACOE. Section 404 of the Clean Water Act prohibits the discharge of dredged or fill material into Waters of the U.S. without formal consent from the ACOE. Waters of the U.S. includes Special Aquatic Sites (e.g., marine waters, tidal areas, stream channels, and wetlands). Impacts to biological resources are assessed as part of the 404 permitting process through consultation with the USFWS. Policies relating to the loss of aquatic habitats generally stress the need to compensate losses on at least an acre-for-acre (1:1) basis. Under Section 404, actions in Waters of the U.S. may be subject to either an individual permit or a general permit, or may be exempt from regulatory requirements. Some activities have been given blanket authorization under the provisions of a general permit through the Nationwide Permit system.

Project activities proposed within or adjacent to drainages on the project site fall under the jurisdiction of the ACOE and any impacts to jurisdictional areas would be regulated under Section 404 provisions.

#### 2) Section 401 of the Clean Water Act of 1977

Section 401 of the Clean Water Act and its provisions ensure that federally permitted activities comply with the federal Clean Water Act and state water quality laws. Section 401 is implemented through a review process that is conducted by the Regional Water Quality Control Board (RWQCB), and is triggered by the Section 404 permitting process. The RWQCB certifies via the 401 process that a proposed project complies with applicable effluent limitations, water quality standards, and other conditions of California law. Evaluating the effects of the proposed project on both water quality and quantity (runoff) falls under the jurisdiction of the RWQCB.



Proposed project activities that have the potential to result in impacts to water quality and quantity would require certification by the RWQCB.

### 3) Federal Endangered Species Act of 1973

The FESA provides legislation to protect federally listed plant and animal species. Impacts to listed species resulting from the implementation of a project would require the responsible agency or individual to formally consult with the USFWS or National Marine Fisheries Service (NOAA Fisheries) to determine the extent of impact to a particular species. If USFWS or NOAA Fisheries determine that impacts to a species would likely occur, alternatives and measures to avoid or reduce impacts must be identified. USFWS and NOAA Fisheries also regulate activities conducted in federal critical habitat, which are geographic units designated as areas that support primary habitat constituent elements for listed species.

No federally endangered or threatened species were determined to have suitable habitat conditions on the project site, and the project site is not located in any currently designated federal critical habitat or proposed critical habitat.

### 4) Migratory Bird Treaty Act of 1918

The federal Migratory Bird Treaty Act protects all migratory birds, including their eggs, nests, and feathers. The Migratory Bird Treaty Act was originally drafted to end the commercial trade in bird feathers popular in the latter part of the 1800's. This Act is enforced by the USFWS, and potential impacts to species protected under this law are evaluated by the USFWS in consultation with the ACOE during 404 review. The Migratory Bird Treaty Act protects the Cooper's hawk, white-tailed kite, California horned lark, loggerhead shrike, and other nesting bird species that have the potential to occur on the project site.

## b. State Policies and Regulations

### 1) California Endangered Species Act

The CESA ensures legal protection for plants listed as rare or endangered, and species of wildlife formally listed as endangered or threatened. The state law also lists California Special Concern species based on limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. Under state law, the CDFG is empowered to review projects for their potential to impact state-listed species and California Special Concern species, and their habitats.

No state endangered or threatened species were determined to have suitable habitat conditions on the project site.

### 2) Section 1602 of the Fish and Game Code

The CDFG is responsible for conserving, protecting, and managing California's fish, wildlife, and native plant resources. To meet this responsibility, the law requires any person, state or local government agency, or public utility proposing a project that may impact a river, stream, or lake to notify the CDFG before beginning the project. If the CDFG determines that the proposed project may adversely affect existing fish and wildlife resources, a Lake or Streambed Alteration

Agreement is required. A Streambed Alteration Agreement lists the CDFG conditions of approval relative to the proposed project, and serves as an agreement between an applicant and the CDFG for a term of not more than five years for the performance of activities subject to this section. A Streambed Alteration Agreement from the CDFG would be required prior to any direct or indirect impact to streambeds, banks, channels or associated riparian resources.

### 3) Other Sections of the Fish and Game Code

“Fully Protected” species may not be taken or possessed without a permit from the Fish and Game Commission and/or the CDFG. Information on these species can be found within section 3511 (birds), section 4700 (mammals), section 5050 (reptiles and amphibians), and section 5515 (fish) of the Fish and Game Code. The white-tailed kite is a Fully Protected species that has the potential to occur on the project site.

#### c. Local Policies and Regulations

The City of San Luis Obispo General Plan Land Use Element (City of San Luis Obispo 2004b) contains several goals pertaining to biological resources, including:

- Protect, sustain, and where it has been degraded, enhance wildlife habitat on land along creeks and other wetlands, so that diverse, native plants, fish, and animals can continue to live within the area;
- Protect and restore natural landforms and features in and near the city, such as marshes and creeks;
- Identify, map, and monitor the community’s natural assets to preserve and protect them.

According to the City Land Use Element Creek and Wetlands Management Objectives (City of San Luis Obispo 2004b), the City should manage its lake, creeks, wetlands, floodplains, and associated wetlands to achieve objectives that include:

- Maintaining and restoring natural conditions and fish and wildlife habitat (refer to City of San Luis Obispo General Plan Digest LU 6.4.1A);
- Recognizing and distinguishing between those sections of creeks and Laguna Lake that are in previously urbanized areas and sections that are in largely natural areas. Those sections already heavily impacted by urban development and activity may be appropriate for multiple uses whereas creeks and lakeshore in a more natural state shall be managed for maximized ecological value (refer to City of San Luis Obispo General Plan Digest LU 6.4.1D).

The City Open Space Element contains several policies for the preservation of creeks and wetlands (City of San Luis Obispo 2004c). Creek corridors are to be preserved as a regional network of open space; degraded creeks are to be restored to provide high quality habitat, augment aesthetic resources, and to reverse the historical trend of creek channelization and modification.

Development practices for creek preservation and wetlands outlined in the City Open Space Element include, but are not limited to:

- Creeks and their corridors, and wetlands are to be preserved as open space, and creek corridors are to be maintained in essentially a natural state to protect the community's water quality, wildlife diversity, and aesthetic value (refer to City of San Luis Obispo General Plan Digest OS 3.2.1A).
- The City will coordinate with appropriate County, State, and Federal agencies that protect and preserve creek and wetland resources when designing projects or reviewing development that may impact a creek (refer to City of San Luis Obispo General Plan Digest OS 3.2.1AC).
- Public or private development are to be located outside creek corridors and creek setback areas (20 feet from the riparian corridor), and wetlands, except in the following cases: (1) no practicable alternative is available; and (2) the location is necessary for the construction of new roads, bridges, trails, or similar infrastructure where the City determines the project has minimized environmental impacts through project design and infrastructure placement (refer to City of San Luis Obispo General Plan Digest OS 3.2.1E).

When no practicable alternative to significant creek resources or wetlands impacts exists, developers are required to implement a City-approved mitigation and monitoring plan that will avoid or ameliorate significant impacts:

- Mitigation and monitoring plans shall be: (1) in accordance with official CDFG guidelines; and (2) prepared and implemented by qualified professionals funded by the project applicant (refer to City of San Luis Obispo General Plan Digest OS 3.2.2A).
- Mitigation of biological impacts shall be provided as onsite/in-kind replacement. Offsite/in-kind mitigation may be allowed where onsite/in-kind mitigation is not possible (refer to City of San Luis Obispo General Plan Digest OS 3.2.2B).

Development practices for grassland communities outlined in the City Open Space Element include, but are not limited to:

- Grassland communities should be preserved as habitat buffers and open space (refer to City of San Luis Obispo General Plan Digest OS 5.2.2A).
- Grassland communities should be protected by requiring public and/or private development to:
  - Preserve grassland communities through easements or dedications;
  - Designate such easements or dedications as open space; and
  - Enhance preserved or protected grassland communities by (1) maintaining these areas in a natural state; (2) employing restoration or revegetation techniques; (3) utilizing site or region specific native grasses, herbs, and shrubs; (4) prohibiting the planting of invasive, non-native plants (refer to City of San Luis Obispo General Plan Digest OS 5.2.2B).

Policies for protection of sensitive plants, animals, and habitats outlined in the City Open Space Element include, but are not limited to:

- To the extent feasible, native wildlife and local habitat are to be protected (refer to City of San Luis Obispo General Plan Digest OS 6.2.1A).
- Sensitive habitat and unique resources are to be protected from development impacts by requiring a habitat buffer or open space easement around these areas (refer to City of San Luis Obispo General Plan Digest OS 6.2.1B).
- Sensitive habitat areas and associated habitat buffers shall be preserved as open space refer to City of San Luis Obispo General Plan Digest OS 6.2.2A).

d. Consistency with Plans and Policies

The proposed project has been evaluated for consistency with plans and policies that pertain to biological resources. If potential inconsistencies were identified, impacts are discussed in Section V.A.5 below, and mitigation measures have been recommended that reduce or eliminate these inconsistencies.

### 3. Thresholds of Significance

The significance of potential biological impacts are based on thresholds identified within Appendix G of the CEQA Guidelines, which provides the following thresholds for determining impact significance with respect to biological resources. Biological impacts would be considered significant if the proposed project would:

- Substantially affect a rare or endangered species;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community;
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act;
- Interfere substantially with the movement of any resident or migratory species of wildlife or with established native resident or migratory wildlife corridors;
- Conflict with any local policies or ordinances protecting biological resources;
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional, or state habitat conservation plan;
- Reduce the long term viability of native plant, fish or wildlife populations;
- Reduce species diversity or numbers of species;
- Introduce invasive plant or animal species.

### 4. Impact Assessment and Methodology

Impact assessment focused on identifying potential project-related impacts associated with implementation of the project, and was based on details presented within the project description. Potential impacts were expected to occur where proposed construction or development activities would result in temporary or permanent modification of sensitive communities or habitats occupied by special-status species. Impacts to biological resources within the study area were evaluated by determining the sensitivity, significance, or rarity of each resource that would be adversely affected by the proposed project, and thresholds of significance were applied to

determine if the impact constituted a significant impact. The significance threshold may be different for each habitat or species and is based on the resource's rarity or sensitivity and the level of impact that would result from the proposed project. Where potential project-related impacts to sensitive resources were identified, measures for avoiding or minimizing adverse effects to these resources were recommended.

A search of the California Natural Diversity Data Base (CNDDDB 2004) was conducted to examine reported occurrences of special-status plant and animal species and sensitive habitats within the San Luis Obispo U.S. Geological Survey (USGS) 7.5-minute quadrangle area. The results of the CNDDDB search were reviewed to determine reported occurrences of various special-status species and habitats in the general vicinity of the project site. The CNPS *Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2001) was also reviewed to provide information on rare plants that have potential to occur in the area. Where appropriate, vegetation/habitat types were classified based on CDFG *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986).

Morro Group Biologists conducted biological surveys on September 28, October 6, and December 15, 2004. The surveys consisted of walking meandering transects, recording all identifiable plant species encountered, and documenting natural communities and habitats present on the project site. Riparian corridors were mapped with a Trimble GPS Pathfinder Pro XR system capable of sub-meter accuracy.

Morro Group wetlands specialists performed a wetland delineation following ACOE Wetlands Delineation Manual standard protocol (Environmental Laboratory 1987) on the project site on September 28 and October 6, 2004. This study included an investigation within the project site of the three ACOE wetland parameters (i.e. hydrophytic vegetation, hydric soils, and wetland hydrology).

In addition, this EIR incorporates the findings of previous surveys and documents prepared for the study area by the applicant's biological consultants (refer to Appendix D):

- *Tract 2134 Orcutt Road San Luis Obispo Riparian Revegetation & Enhancement Plan*; prepared by firma, 1999; and
- *Presurvey Site Assessment of California Red-legged Frogs, Tract 2134, Orcutt Street San Luis Obispo, California*; prepared by Levine Fricke Recon, 1998.

The Revegetation and Enhancement Plan (firma 1999) was prepared for a previous proposed project in 1999 and was approved by the City. Recommendations of this plan were incorporated into the EIR as mitigation measures where applicable and augmented as necessary. Findings of the California Red-legged Frog Site Assessment Report were also incorporated into the EIR and assisted with impact analysis.

Other studies prepared for previously proposed projects within the Four Creeks Rezoning Project study area include (refer to Appendix D):

- *Assessment Development Impact Upon the Riparian Corridor by the proposed Orcutt Crossing Project at 3210, 3256, 3290 Broad Street and 761 Orcutt Road*; prepared by Leslie S. Bowker, Ph.D., 1995; and,
- *Routine Wetland Delineation for Tract 2134 San Luis Obispo, California*; prepared by Levine Fricke Recon, 1998.

These studies were not incorporated into this EIR because they did not include mitigation measures applicable to the currently proposed project.

## 5. Project-Specific Impacts and Mitigation Measures

An overlay showing the placement of proposed construction plans in relation to existing vegetation on the project site is included in Figure BIO-2. General construction activities associated with all phases of project implementation have the potential to directly impact riparian habitats, wetlands habitats, and special-status plant species. Terrestrial species and aquatic resources within and adjacent to the study area would also be indirectly impacted.

### a. Project Site Drainages

If construction activities occur at any time during the normal rainy season (November 1 through April 30, as defined by City Municipal Code), sediment could enter the adjacent drainage channels located on the project site. If sediment enters any of these creeks, degradation of associated aquatic habitat and potential impacts to Waters of the U.S. could occur. The proposed stormwater basin outfalls to drainages onsite also have the potential to introduce sediment loads to downstream aquatic habitats. Disturbance of any area that qualifies as Waters of the U.S. as a result of project construction would be considered a significant adverse impact. Use, maintenance, or staging of construction equipment in areas adjacent to drainages could also increase the risk of fuel spills or leaks into sensitive habitats.

These potential impacts would be considered significant, but would be minimized or avoided through implementation of appropriate mitigation measures.


### **BIO Impact 1 Construction and operation of the project has potential to indirectly impact aquatic habitats located within the site and downstream from the site.**

BIO/mm-1 Prior to construction, the applicant shall prepare a Storm Water Pollution Prevention Plan (SWPPP), which shall include detailed sediment and erosion control plans submitted to the City of San Luis Obispo for approval. The SWPPP shall specifically address protection of drainages, and riparian and wetland resources on and adjacent to the project site. Compliance shall be verified by the project environmental monitor through submission of compliance reports.

BIO/mm-2 To avoid erosion and downstream sedimentation, and to avoid impacts to aquatic species, no work in drainages shall occur during the rainy season (November 1 through April 30).



**LEGEND**

-  Blue Gum Eucalyptus Woodland
-  Central Coast Riparian Scrub
-  approximate Riparian areas on Broad Street parcels
-  Wetland habitat
-  Other Waters Wetlands
-  approximate Wetland areas on Broad Street parcels
-  Cottonwood - dominant Riparian areas
-  California walnut
-  20-foot creek setback (per City ordinance)
-  Project boundaries (approximate)

Note: Creek setback line represents a 20-foot offset from the limits of CDFG jurisdiction, as described in the Wetland Assessment report (Morro Group, 2004)

100 0 100 200 Feet

Aerial Photo: City/County Zone 9 – 2000



NORTH  
As Shown

**IMPACTS TO BIOLOGICAL RESOURCES  
FIGURE BIO-2**

Back of Figure BIO-2



- BIO/mm-3 Equipment access and construction shall be conducted from the banks rather than from within drainages. No equipment shall be staged and no temporary placement of fill shall occur in drainages.
- BIO/mm-4 Soil stockpiles shall not be placed in areas that have potential to experience significant runoff during the rainy season. All project-related spills of hazardous materials within or adjacent to project sites shall be cleaned up immediately. Spill prevention and cleanup materials shall be on-site at all times during construction. Cleaning and refueling of equipment and vehicles shall occur only within designated staging areas. The staging areas shall conform to standard BMPs applicable to attaining zero discharge of stormwater runoff. No maintenance, cleaning or fueling of equipment shall occur within wetland or riparian areas, or within 50 feet of such areas. At a minimum, all equipment and vehicles shall be checked and maintained on a daily basis to ensure proper operation and to avoid potential leaks or spills.
- BIO/mm-5 During construction and operation, [permanent](#) installation of filtration devices designed to remove oil, grease, and other potential pollutants from stormwater runoff shall be required for all project storm water runoff directed to drainages traversing the project site.
- BIO/mm-6 If surfactants or herbicides are used at any time on the project site, application of surfactants or herbicide shall not occur within 20 feet of drainages/riparian area, in compliance with the City's riparian setback requirements.
- Residual Impact With implementation of mitigation, impacts associated with potential degradation of onsite and downstream aquatic areas due to stormwater runoff would be considered *less than significant with mitigation, Class II*.

b. Plant Communities and Wildlife Habitats

1) Riparian

Construction of the proposed project would permanently remove or otherwise impact riparian habitat as a result of the removal of trees, in-stream vegetation, and/or other disturbances such as pruning and maintenance (refer to Figure BIO-2). Riparian habitat would be impacted by the following components:

Tumbling Waters

- The proposed Sacramento Drive extension across Alrita-Carla Creek and sections of Escorp Drainage;
- The proposed outfalls to Alrita-Carla Creek;
- The proposed outfalls to Escorp Drainage;
- The proposed pedestrian bridge over Sydney Creek;
- The proposed construction of housing units, access roads, and/or other infrastructure within the riparian corridors of Sydney Creek and Bishop Creek;

- The proposed widening of Orcutt Road, which would impact Escorp Drainage and Sydney Creek;
- Encroachment in some areas within the 20-foot creek setback established by the City of San Luis Obispo.

#### Creekstön

- The proposed detention basins and outfalls to Bishop Creek;
- The proposed outfalls to Escorp Drainage;
- The proposed outfalls to Sydney Creek;
- The proposed construction of housing units, access roads, and/or other infrastructure within the riparian corridors of Arlita-Carla Creek, both forks of Escorp Drainage, and Sydney Creek;
- The proposed widening of Orcutt Road, which would impact Bishop Creek;
- Encroachment in some areas within the 20-foot creek setback established by the City of San Luis Obispo.

#### Broad Street Parcels

No development plans are proposed for the Broad Street Parcels at this time; however, future development has the potential to impact riparian resources.

#### **BIO Impact 2 Riparian habitat would be permanently removed or impacted by project implementation, resulting in significant adverse impacts to riparian resources.**

BIO/mm-7 At the time of application of grading permits, all riparian areas and 20-foot setback boundaries shall be shown on all construction plans. The riparian areas and 20-foot setback boundaries shown on grading plans shall be based on the field data collected as part of the EIR analysis, as presented in Figure BIO-2. All riparian vegetation planned for removal shall be specified on construction plans. Except for activities requiring removal of riparian trees and associated understory vegetation that are specified on construction plans, all ground disturbances and vegetation removal shall be prohibited within the 20-foot setback from the outer edge of the riparian canopy of any drainage onsite.

BIO/mm-8 In order to protect existing native trees (i.e. California black walnut, western sycamore, Fremont cottonwood, coast live oak, arroyo willow, red willow, blue elderberry, California bay), native riparian understory vegetation (i.e. California blackberry, mugwort, stinging nettle), and minimize adverse effects of grading and construction onsite, the applicant shall implement a Riparian Habitat Revegetation and Restoration Plan in consultation with the CDFG and the City Natural Resources Manager. A qualified restoration biologist and/or horticulturalist, approved by the City of San Luis Obispo, shall be retained by the applicant to prepare the Riparian Habitat Revegetation and Restoration Plan, complete with success criteria goals and a five-year monitoring schedule. The qualified biologist shall supervise site preparation, timing,

species utilized, planting installation, maintenance, monitoring, and reporting of the revegetation/restoration efforts.

If impacts to riparian trees or riparian understory vegetation cannot be avoided, the impacts shall be minimized to the extent practicable. No ground disturbance including grading for buildings, access roads, easements, subsurface grading, sewage disposal, and well placement shall occur within the critical root zone of any native tree unless specifically authorized by the Revegetation and Restoration Plan. The Revegetation and Restoration plan shall include the following:

- a. An exhibit (i.e. map) showing the location, identification, diameter, and critical root zone of all native trees located onsite.
- b. Fencing of all trees to be protected at or outside of the critical root zone or at the 20-foot setback boundary, whichever is greater. Fencing shall be at least three feet in height of material acceptable to the City of San Luis Obispo and shall be staked every six feet. The applicant shall place signs stating “tree protection area” at 15-foot intervals on the fence. The fencing and signs shall be shown on the tree protection exhibit, shall be installed prior to grading permit approval, and shall remain in place throughout all grading and construction activities.
- c. Identification of any areas where landscaping, grading, trenching, or construction activities would encroach within the critical root zone of any native or specimen tree. All encroachment is subject to review and approval by the City of San Luis Obispo.
- d. Location of construction equipment staging and storage areas shown on the tree protection exhibit. All construction equipment staging and storage areas shall be located outside of the 20-foot riparian setback and other sensitive habitat areas, and shall be depicted on project plans submitted for land use clearance. No construction equipment shall be parked, stored, or operated within the protected area. No fill soil, rocks, or construction materials shall be stored or placed within the protected area.
- e. Identification of all proposed utility corridors and irrigation lines shown on the tree protection exhibit. New utilities shall be located within roadways, driveways, or a designated utility corridor such that impacts to trees are minimized.
- f. Any proposed tree wells or retaining walls shown on the tree protection plan exhibit, as well as grading and construction plans, and located outside of the critical root zone of all protected trees unless specifically authorized.

- g. Any encroachment within the critical root zone of native trees adhering to the following standards:
  - i. Any paving shall be of pervious material (e.g. gravel, brick without mortar).
  - ii. Any trenching required within the critical root zone of a protected tree shall be done by hand.
  - iii. Any roots one inch in diameter or greater encountered during grading or trenching shall be cleanly cut and sealed.
- h. All trees located within 20 feet of buildings protected from stucco and/or paint during construction.
- i. No permanent irrigation within the critical root zone of any native tree. Drainage plans shall be designed so that tree trunk areas are properly drained to avoid ponding.
- j. Remove only trees designated for removal on the approved tree protection plan.
- k. Replace in-kind any native trees that are removed, relocated, and/or damaged on a 3:1 ratio with either one-gallon sized saplings grown from seed obtained from drainages traversing the project site or commercially available one-gallon plantings. When necessary to remove a tree and feasible to replant, trees shall be boxed and replanted. In addition, replace in-kind any native riparian understory vegetation (e.g. California blackberry) that is removed, relocated, and/or damaged basis with either one-gallon sized plantings grown from seed obtained from drainages traversing the project site or commercially available one-gallon plantings. Acreage of riparian understory vegetation removed will be quantified and replaced on a ratio of 3:1. The plantings shall be protected from predation by wild and domestic animals, and from human interference by the use of staked, chain link fencing and gopher fencing during the maintenance period.

BIO/mm-9

Prior to issuance of grading permit, the applicant shall obtain all necessary permits, approvals, and authorizations from jurisdictional agencies. These may include, but may not be limited to: (1) ACOE Section 404 Nationwide Permit or Individual Permit for impacts to ACOE jurisdictional wetlands or other waters; (2) RWQCB Section 401 Water Quality Certification for discharges “Waters of the U.S.” and/or “Waters of the State”; and (3) CDFG Section 1602 Streambed Alteration Agreement for activities within the tops of banks or outer edges of riparian canopies (whichever extends furthest from the streambeds) of drainages.

- BIO/mm-10 Prior to construction, the applicant shall provide funding for a qualified, City-approved environmental monitor for the construction phase of the project to ensure compliance with EIR mitigation measures, the Revegetation and Restoration Plan, any applicable permit conditions, and any conditions required by the City of San Luis Obispo. The environmental monitor shall be under contract to the City. The monitor shall be responsible for (1) ensuring that procedures for verifying compliance with environmental mitigations are followed; (2) lines of communication and reporting methods; (3) daily and weekly reporting of compliance; (4) construction crew training regarding environmentally sensitive areas; (5) authority to stop work; and (6) action to be taken in the event of non-compliance. Monitoring shall be at a frequency and duration determined by the affected natural resource agencies (e.g., ACOE, RWQCB, CDFG, and the City of San Luis Obispo).
- BIO/mm-11 If onsite mitigation to permanent loss of riparian habitat is not feasible, an offsite riparian mitigation component shall be incorporated into the Revegetation and Restoration Plan, subject to review and approval by jurisdictional agencies. Plans for off-site mitigation shall include a monitoring schedule and success criteria to ensure that onsite and any offsite restoration/enhancement efforts are successful.
- Residual Impact With implementation of mitigation, impacts associated with loss of riparian habitat would be considered *less than significant with mitigation, Class II*, by offsetting the loss with revegetation and restoration.

## 2) Wetlands

Construction of the proposed project would permanently remove or otherwise impact wetlands as a result of the removal of in-stream vegetation within the OHWMs of drainages, and/or other disturbance (refer to Figure BIO-2). Wetlands would be impacted by the following components:

### Tumbling Waters

- The proposed Sacramento Drive extension across Alrita-Carla Creek and sections of Escorp Drainage;
- The proposed outfalls to Alrita-Carla Creek;
- The proposed outfalls to Escorp Drainage;
- The proposed pedestrian bridge over Sydney Creek;
- The proposed widening of Orcutt Road, which would impact Escorp Drainage and Sydney Creek.

### Creekstön

- The proposed detention basins and outfalls to Bishop Creek;
- The proposed outfalls to Escorp Drainage;
- The proposed outfalls to Sydney Creek;
- The proposed widening of Orcutt Road, which would impact Bishop Creek.

Broad Street Parcels

No development plans are proposed for the Broad Street Parcels at this time; however, future development has the potential to impact riparian resources.

**BIO Impact 3 Wetlands would be permanently removed or impacted by project implementation, resulting in significant adverse impacts to wetland resources.**

BIO/mm-12 If impacts to wetlands cannot be avoided, the impacts shall be minimized to the extent practicable. All wetland vegetation planned for removal shall be specified on construction plans. Except for activities requiring removal of wetland vegetation that are specified on construction plans, all ground disturbances and vegetation removal shall be prohibited within a 20-foot setback from the outer edge of the riparian canopy of any drainage onsite. All riparian areas and 20-foot setback boundaries shall be shown on all grading plans.

BIO/mm-13 The applicant shall incorporate a wetland mitigation component into the Revegetation and Restoration Plan outlined in BIO/mm-2, which shall include the following:

- a. An exhibit (i.e. map) showing the location, of all wetland vegetation located onsite.
- b. ~~Only hand-removal of wetland vegetation~~If impacts to wetlands are proposed, the method of wetland vegetation removal shall be determined by the ACOE Nationwide Permit, or by the landscape contractor if no guidance is provided by ACOE. If feasible, wetland vegetation removed shall be salvaged as plugs or plantings for revegetation/restoration.
- c. If permanent impacts to wetlands are proposed, the Plan shall include a requirement to Rreplace in-kind any wetland vegetation removed, relocated, and/or damaged on a 3:1 basis with plugs or plantings obtained from drainages traversing the project site, or commercially available plugs or plantings. Temporary impacts shall be mitigated onsite on a 1:1 basis.

BIO/mm-14 If on-site mitigation for permanent loss of wetlands is not feasible, an off-site wetland mitigation component shall be incorporated into the Revegetation and Restoration Plan, subject to review and approval by jurisdictional agencies. Plans for off-site mitigation shall include a monitoring schedule and success criteria to ensure that onsite and any offsite restoration/enhancement efforts are successful.

Residual Impact With implementation of mitigation, impacts associated with loss of wetlands would be considered *less than significant with mitigation, Class II*, by offsetting the loss with revegetation and restoration.

### 3) Blue Eucalyptus Woodland

Construction of the proposed project would permanently remove or otherwise impact blue eucalyptus woodland (refer to Figure BIO-2). Grading and earth-moving activities would require the removal of individual eucalyptus trees. Although eucalyptus trees are introduced exotics that do not typically require replacement mitigation, removal of eucalyptus trees would impact potential nesting bird habitat and monarch butterfly winter roosting habitat. Impacts to these species as a result of tree removal are discussed in the following subsections addressing wildlife impacts, and mitigation measures are recommended, as appropriate.

### 4) Ruderal Vegetation/Disturbed Annual Grassland

Construction of housing units, access roads, and other infrastructure will permanently impact ruderal vegetation/disturbed annual grassland habitat through displacement. Grading and earth-moving activities will permanently impact ruderal vegetation/disturbed annual grassland habitat by disrupting soil, and destroying or damaging vegetation. Additional habitat may be temporarily impacted by proposed construction due to factors such as various heavy equipment operation onsite and worker foot traffic. Although this habitat is considered degraded, it may support conditions for sensitive plant species discussed in Section V.A.1. These impacts could affect sensitive plant species (i.e. Obispo Indian paintbrush, Jones's layia, adobe sanicle) or sensitive plant species habitat in annual grasslands within the project site.

**BIO Impact 4 Ruderal vegetation/disturbed annual grassland habitat would be permanently removed or impacted by project implementation, resulting in significant, adverse impacts to sensitive plant species.**

BIO/mm-15 Prior to ground disturbance, botanical surveys shall be conducted to determine presence or absence of Obispo Indian paintbrush, Jones's layia, or adobe sanicle in annual grasslands within the project site. A minimum of three botanical surveys shall be scheduled to occur throughout the February to May blooming (identification) period, according to the following table, prior to scheduled site disturbance.

Sensitive Plant Species	Blooming/Identification Period
Obispo Indian Paint Brush	April
Jones layia	March - May
Adobe sanicle	February - May

If sensitive plant species are identified within the project site the applicant shall implement a Sensitive Plant Species Revegetation and Restoration Plan in consultation with CDFG and the City Natural Resources Manager. A qualified biologist and/or botanist, approved by the City of San Luis Obispo shall be retained by the applicant to prepare the Sensitive Plant Species Revegetation and Restoration Plan, complete with success criteria goals and a five-year monitoring schedule. The qualified biologist shall supervise site

preparation, timing, species utilized, planting installation, maintenance, monitoring, and reporting of the revegetation/restoration efforts. The following measures shall be incorporated into the Sensitive Plant Species Revegetation and Restoration Plan.

- a. In areas not permanently displaced by new development, ruderal vegetation/disturbed annual grassland shall be revegetated and restored using topsoil salvage, restoring disturbed areas to original contours, and hydroseeding impacted areas with a seed mix characteristic of the grasslands onsite. Appropriate species for erosion control and eventual native shrub and herb cover shall be utilized. Because native grassland species are likely to be out-competed by non-native species, a ground cover mix is recommended for impacted ruderal vegetation/annual grassland areas. Topsoil salvage methods and seed mixes shall be specified in the Sensitive Plant Species Revegetation and Restoration Plan. Hydroseeded areas shall be monitored by a qualified restoration biologist and/or horticulturalist for viability and overall success, with additional recommendations as necessary.
- b. If Obispo Indian paintbrush, Jones's layia, or adobe sanicle are identified on the proposed project site, the locations of these populations shall be clearly included on an exhibit (i.e. map). These populations shall be flagged by a qualified biologist and protected with temporary fencing prior to construction. These areas to be protected shall be shown on all applicable construction plans. The protection devices shall be installed by the applicant and verified by the Environmental Monitor prior to any grubbing or vegetation removal. Sensitive plant species protective measures shall remain in place throughout the grading and construction phases.
- c. If avoidance of Obispo Indian paintbrush, Jones's layia, or adobe sanicle in ruderal vegetation/disturbed annual grassland habitat is not feasible, the applicant shall specify an onsite mitigation strategy in the Sensitive Plant Species Revegetation and Restoration Plan shall specify an onsite mitigation strategy that identifies the following:
  - i. Suitable onsite mitigation locations based on soil type, hydrologic conditions, and proximity to existing sensitive species populations;
  - ii. Seed collection requirements and protocol;
  - iii. Soil seed bank conservation strategies;
  - iv. Mitigation site preparation techniques;
  - v. Seeding regimen;
  - vi. Mitigation site maintenance schedule, including weed abatement strategies, erosion control monitoring, etc.; and,
  - vii. Monitoring requirements.



BIO/mm-16 If onsite mitigation to permanent loss of sensitive plant populations in annual grassland habitat is not feasible, an offsite sensitive plant mitigation component shall be incorporated into the Sensitive Plant Species Revegetation and Restoration Plan, subject to review and approval by CDFG and the City Natural Resources Manager. The Sensitive Plant Species Revegetation and Restoration Plan shall identify an offsite area that can be restored with the identified sensitive plant species. Such a site must have the following components.

- a. The offsite area is owned or controlled by a non-profit or governmental agency;
- b. It is shown that the intent for the area will be to protect it in perpetuity with the primary goal to reestablish and maintain native habitat;
- c. There is comparable area available for sensitive plant species restoration;
- d. It is within close proximity of the subject property;
- e. The offsite mitigation area is clearly shown to have all the necessary requirements for successful reestablishment of the plant/habitat (that will be better than or equal to the sensitive plant habitat being eliminated) without the need for any long-term artificial maintenance;

In addition, the Sensitive Plant Species Revegetation and Restoration Plan shall specify an offsite mitigation strategy that identifies the following:

- f. If feasible, the sensitive plant species located onsite and/or their seed shall be used for the offsite mitigation area, as determined appropriate by the biologist/botanist;
- g. Seed collection requirements and protocol;
- h. Soil seed bank conservation strategies;
- i. Mitigation site preparation techniques;
- j. Seeding regimen;
- k. Mitigation site maintenance schedule, including weed abatement strategies, erosion control monitoring, etc.;
- l. Submittal of a cost estimate by a qualified individual for: property acquisition, site evaluation reporting; all restoration work, and monitoring/maintenance/remedial work for at least 5 years;
- m. Establishment of a bond for the cost estimate to be held by the City until the 5 year time period is up or until sensitive plant species restoration is determined to be successful by City Natural Resources Manager, whichever is greater;
- n. If offsite mitigation area fails, bond shall be applied to establishing a second area.

Residual Impact Impacts associated with loss of ruderal vegetation/disturbed annual grasslands would be considered *less than significant with mitigation, Class II*.

c. Sensitive Species

1) Sensitive Plants

Grading and earth-moving activities would impact grassland habitats within the project site that may support habitat for Obispo Indian paintbrush, Jones's layia, and adobe sanicle. Impacts to southern California black walnut are not expected because no tree removal or other disturbance is proposed to occur near areas with native walnut trees within the project site. Individual plants could be destroyed or damaged by earthmoving and other ground disturbing activities.

**BIO Impact 5 Construction of the project has potential to impact sensitive plant species including Obispo Indian paintbrush, Jones's layia, and adobe sanicle.**

Implement BIO/mm-15 and -16.

Residual Impact With implementation of mitigation, impacts associated to sensitive plant species would be considered *less than significant with mitigation, Class II*, by offsetting the loss with salvage and restoration.

2) Sensitive Wildlife

(a) Monarch Butterfly

Several monarch butterflies were observed flying within the stand of blue gum eucalyptus along Sydney Creek during the December 2004 site surveys, possibly exploring the area's suitability as a potential winter roost. This stand of blue gum eucalyptus woodland has the potential to provide winter roosting habitat for monarch butterfly. Although this is a relatively small stand of eucalyptus at an inland location, and is not known to be a monarch butterfly winter roosting site, tree removal during the monarch butterfly winter roosting season could impact potential winter roosting habitat and could directly impact monarch butterflies if monarch butterflies are found to be utilizing eucalyptus trees onsite as winter roosts. Mitigation has been proposed to reduce the potential for impacts to winter roosting monarch butterflies.

**BIO Impact 6 Construction of the project has potential to impact monarch butterfly winter roosting habitat.**

BIO/mm-17 Prior to construction, if construction activities are scheduled to occur between November 1 and March 1, a qualified biologist shall conduct surveys for overwintering monarch butterflies. Overwintering monarch butterfly surveys shall consist of a preconstruction survey prior to eucalyptus tree removal, with weekly surveys continuing thereafter until March 31. If no roosts are observed within the project site, then no further mitigation is required. If active roosts are observed, then tree removal activities shall be delayed and an appropriate setback for other construction-related activities shall be maintained until monarch butterflies have migrated from the site. Tree removal shall be monitored and documented by the biological monitor regardless of time of year.

Residual Impact With implementation of mitigation, impacts associated with potential impacts to monarch butterfly winter roosting habitat would be considered *less than significant with mitigation, Class II*.

(b) Nesting Birds

While no active bird nests were observed during biological surveys of the site, the riparian corridors, blue gum eucalyptus woodland, and annual grasslands on the project site may provide suitable roosting, nesting, and foraging habitat for a variety of bird species, including several that are considered sensitive by resource agencies. If construction activities occur onsite at any time during the typical nesting season (from March 1 to August 30), nesting birds could be directly and/or indirectly impacted. Cooper's hawk, white-tailed kite, loggerhead shrike, and other tree-nesting birds could have nests directly damaged or destroyed during tree-removal activities, or their nesting or foraging behaviors could be indirectly affected by noise and other sources of construction-related disturbance. Ground nesting birds such as California horned lark could have nests directly impacted and behaviors indirectly impacted during any construction activities in annual grasslands onsite. Implementation of mitigation measures would reduce the potential for impacts to nesting birds.

**BIO Impact 7 Construction of the project has potential to impact nesting birds.**

BIO/mm-18 Prior to construction, if construction activities are scheduled to occur during the typical bird nesting season (from March 1 to August 31) a qualified biologist shall be retained to conduct a preconstruction survey (approximately 1 week prior to construction) to determine presence/absence for tree-nesting birds within riparian corridors and ground-nesting birds within annual grasslands onsite. If no nesting activities are detected within the proposed work area, noise-producing construction activities may proceed and no further mitigation is required. If nesting activity is confirmed during preconstruction nesting surveys or at any time during the monitoring of construction activities, work activities shall be delayed within 100 feet of active nests until the young birds have fledged and left the nest. In addition, the results of the surveys will be passed immediately to the CDFG and the City Natural Resources Manager, possibly with recommendations for buffer zone changes, as needed, around individual nests. Tree removal in riparian zones shall be monitored and documented by the biological monitor regardless of time of year.

Residual Impact With implementation of mitigation, impacts associated with potential impacts to nesting birds would be considered *less than significant with mitigation, Class II*.

## 6. Cumulative Impacts

As proposed, construction of the Four Creeks Rezoning Project would result in impacts to approximately 148,994 sq. ft (3.42 ac) of riparian habitat, 34,091 sq. ft (0.78 ac) of wetlands, 31,097 sq. ft (0.71 ac) of blue gum eucalyptus forest, and 556,696 sq. ft (12.78 ac) of ruderal vegetation/disturbed annual grasslands. Riparian habitat and annual grasslands on the project

site provide potential foraging/nesting habitat for sensitive bird species, and blue gum eucalyptus woodlands provide marginal winter roosting habitat for monarch butterfly.

The Four Creeks Rezoning Project's proposed removal of riparian habitat, wetlands, and annual grassland habitat, considered in context with the potential for losses of similar habitats due to the construction of the numerous projects within the cumulative development scenario, constitutes a cumulative impact to these biological resources.

**BIO Impact 8    The cumulative losses of riparian habitat, wetlands, and annual grassland habitat resulting from the proposed project in conjunction with the cumulative development scenario would result in impacts to biological resources.**

Implement BIO/mm-1 through BIO/mm-18.

Residual Impact    Projects identified within the cumulative development scenario would be subject to the same regulatory requirements and similar types of mitigation measures as the proposed project. Cumulative impacts to riparian habitat, wetlands, and annual grassland would be *less than significant with mitigation, Class II*.

## 7.    Secondary Impacts

Orcutt Road must be widened to mitigate transportation and circulation impacts that would result from the new development (refer to the Transportation and Circulation section of this EIR). The road widening would produce secondary impacts, including 1) permanent removal of ruderal vegetation/disturbed annual grassland to be replaced by additional road surface; and, 2) wetland impacts due to culvert extensions in drainages under Orcutt Road. Mitigation for impacts to project site drainages, riparian habitats, wetlands, and ruderal vegetation/disturbed annual grassland has been addressed in BIO/mm-1 through BIO/mm-16, and will be sufficient to mitigate secondary impacts associated with the road widening and habitat loss. Culvert extensions are proposed for Escorp Drainage, Sydney Creek, and Bishop Creek to compensate for the road widening. These extensions would require work below the OHWM of jurisdictional drainages, and the disturbance of riparian habitat and/or vegetated streambeds. Mitigation for impacts to riparian habitat has been addressed in BIO/mm-1 to BIO/mm-6, and would be sufficient to mitigate secondary impacts associated with the road widening and habitat loss.

## 8.    Mitigation Monitoring Summary

Chapter VIII, Mitigation Monitoring and Reporting Plan, summarizes the mitigation measures and monitoring requirements for this resource.