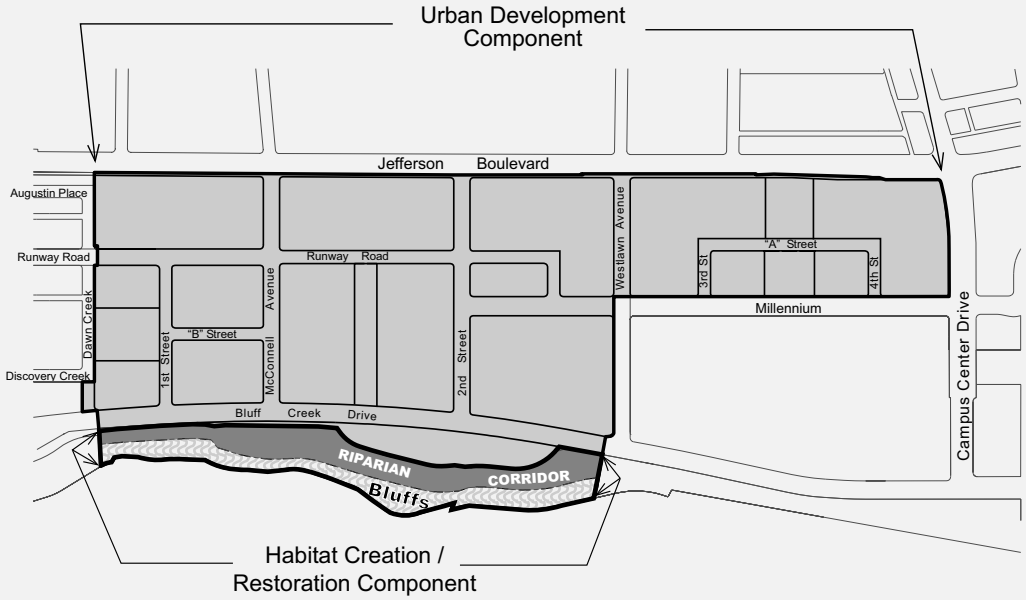
Draft Environmental Impact Report (DEIR)
Village at Playa Vista



Volume X
Technical Appendices F-I

F. Water Resources (Cont.)
G. Biotic Resources
H. Noise
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City of Los Angeles/EIR No. ENV-2002-6129-EIR

2003

State Clearinghouse No. 2002111065

APPENDIX G:
BIOTIC RESOURCES TECHNICAL APPENDIX

APPENDIX G-1:
U.S. ARMY CORPS OF ENGINEERS PERMIT NO. 90-426-EV; CALIFORNIA DEPARTMENT OF FISH AND GAME 1603 STREAMBED ALTERATION AGREEMENT NO. 5-639-93

BIOLOGICAL RESOURCES OF THE PROPOSED VILLAGE AT PLAYA VISTA PROJECT

March 20, 2003

Prepared For:

PLAYA CAPITAL COMPANY, LLC
12555 West Jefferson Boulevard
Los Angeles, California 90066

Prepared By:

PSOMAS
3187 Redhill Avenue, Suite 250
Costa Mesa, CA 92626

Contact: Edith Read, Ph.D.
(714) 751-7373

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SECTION 1.0 INTRODUCTION

Playa Capital Company, LLC is proposing a mixed-use development and habitat restoration project for a 111.0-acre property generally bounded by the Playa Vista First Phase Project to the east and west, Jefferson Boulevard to the north, and the Westchester bluffs to the south (Figures 1-1 and 1-2). The habitat restoration component of the project proposes to restore 6.7 acres of riparian habitat that was historically associated with Centinela Creek, and 5.0 acres of upland habitat that was historically associated with the Westchester Bluffs. These components, together with a 99.3-acre proposed mixed-use development of a former private airport area, are referred to as the Village at Playa Vista ("Project")(Figure 1-3).

The property has been disturbed for many decades. Probably the most significant land alterations, from a biological perspective, occurred in the 1940's and 1950's with conversion of Centinela Creek into a channelized storm drain and development of the property as a private airport with associated buildings and roads. Based on pre-historical and historical information about the flora and fauna (e.g. Henrickson 1991; Altschul et al. 1992), these land alterations resulted in the loss of most of the indigenous flora and fauna that would have been associated with Centinela Creek, its floodplain, and the Westchester Bluffs.

Currently the Project site is used on an ongoing basis to stockpile soil and crushed rock, provide recycling for construction materials, stage construction equipment, materials and personnel, and provide for temporary stormwater detention. These activities are allowed under permits issued by the City of Los Angeles, U.S. Army Corps of Engineers and California Department of Fish and Game.[1] Site conditions change over time as a result of these permitted activities, as stockpiled materials are transported, equipment, material and personnel are staged in different areas, stormwater detention areas are modified, and general site maintenance activities are conducted.

Numerous biological studies have been conducted on the property and its vicinity over the years, beginning in the late 1960'-s and continuing to the present date. The purpose of this study is to update the previous studies and document biological resources currently on the property, with detail sufficient for environmental review and permitting of the Proposed Project. The biological resources described in this report represent a "snapshot" characterizing the site at a point in time, and will be subject to ongoing change due to ongoing permitted maintenance, construction staging, and stormwater detention activities on the Project site.

[1] U.S. Army Corps of Engineers Permit No. 90-426-EV; California Department of Fish and Game 1603 Streambed Alteration Agreement No. 5-639-93.

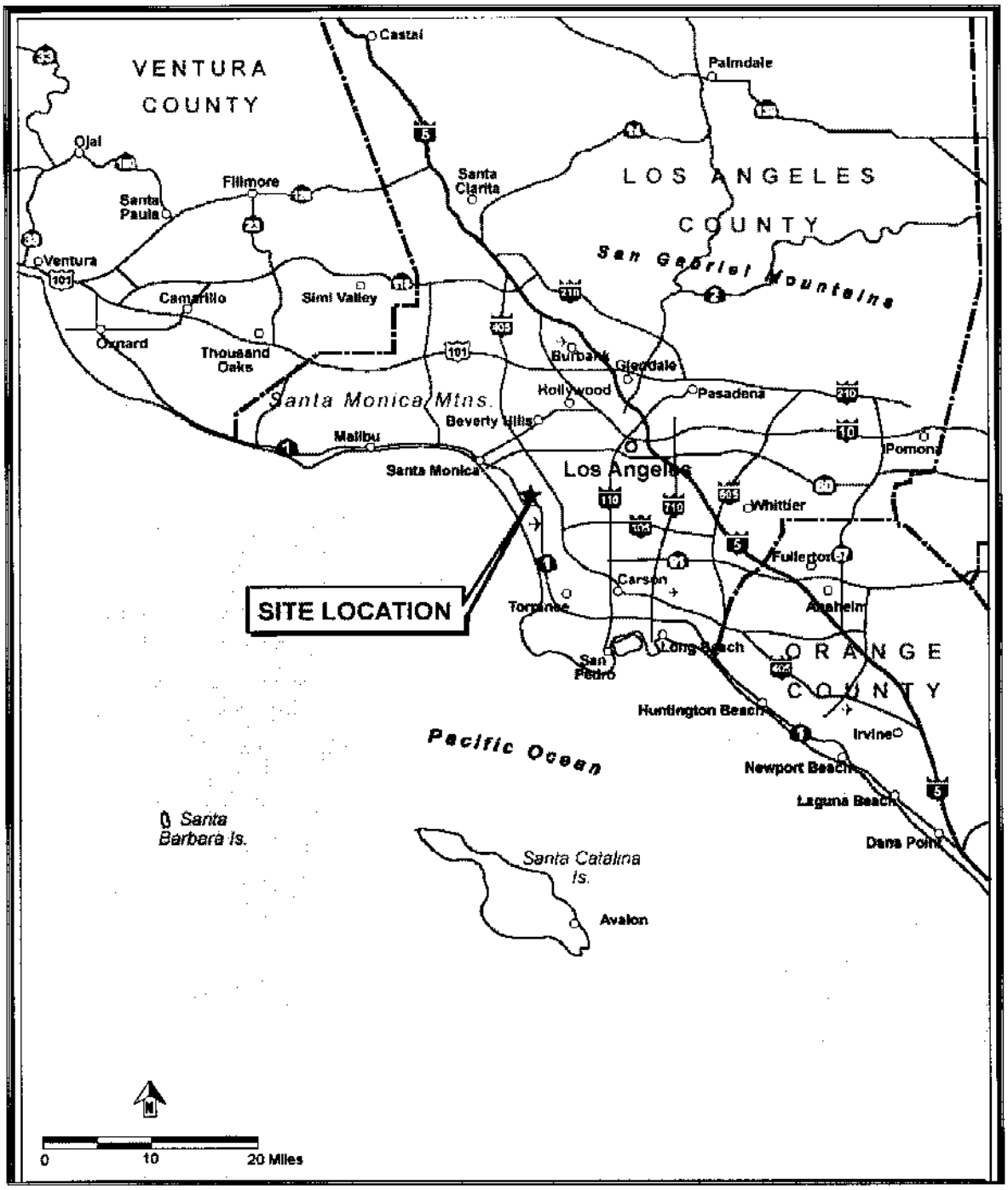


Figure 1-1. Project Location

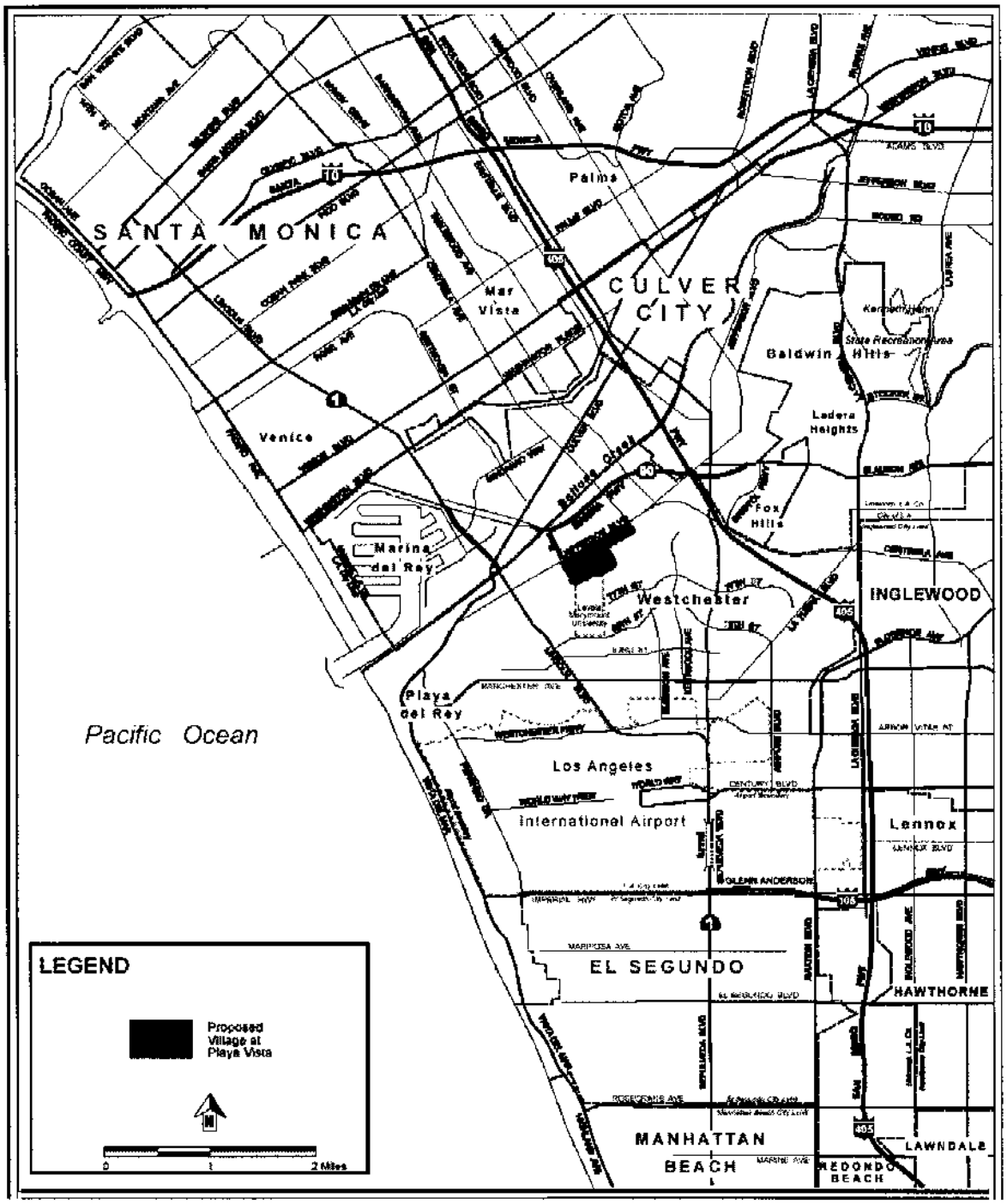


Figure 1-2. Community Location

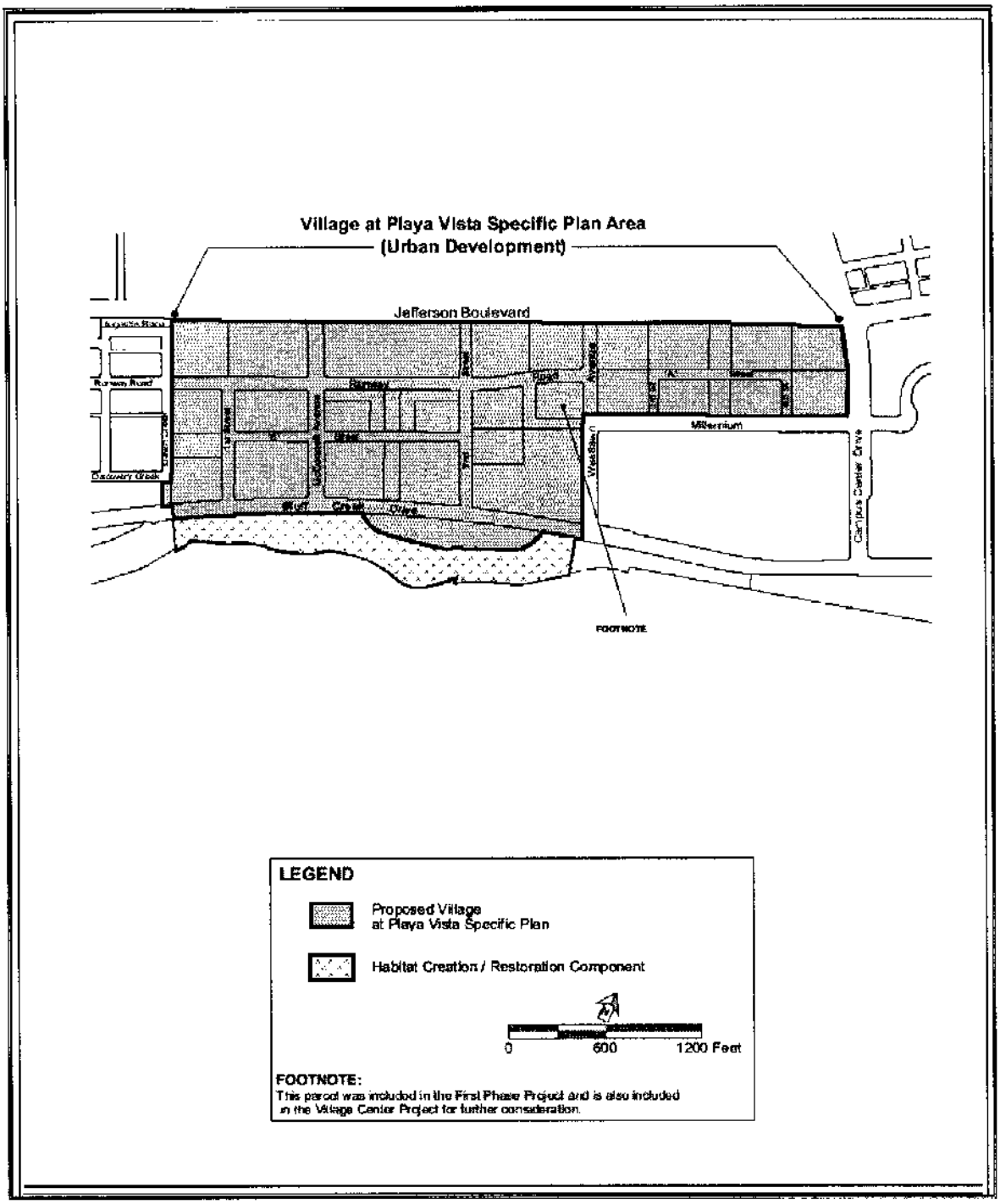


Figure 1-3. Project Components

SECTION 2.0 METHODS

2.1 Literature Review

In addition to review of the California Natural Diversity Database, previous biological studies of Area D and the Ballona region were consulted to review lists of species that were observed on or in the vicinity of the Project site and to evaluate potential for present occurrence of special status species on the Project site. Table 2-1 lists the studies that were consulted and their focus. Please refer to Section 6.0 (References) for details of titles and authors of the studies.

For ease of reference to the prior studies, note that Table 2-1 refers to four general planning areas of the Playa Vista property: A, B, C, and D. These designations were initially intended for preliminary planning only, but because all of the biology studies use this nomenclature, the designations are kept in Table 2-1 to avoid confusion. The Proposed Project is located in former planning area D.

2.2 Field Evaluation

Field surveys of vegetation and wildlife were conducted by Psomas senior ecologist Dr. Edith Read and Psomas wildlife biologist Andrew Forde. Survey dates were December 18, 2002, February 13, 2003, and February 18, 2003. A vegetation map and species lists were prepared based on observations during these surveys. The plant community classification system of Sawyer and Keeler-Wolfe (1997) was used where applicable. Highly disturbed areas and stands of perennial exotic species, while not conforming to established classifications in Sawyer and Keeler-Wolfe (1997), were classified using their methodology, which is based on species dominance and subdominance. Plant species taxonomy was based on Hickman (1993). Wildlife species taxonomy was based on standard field guides – please refer to References for a complete list.

Assessment of potential occurrence of sensitive plant and wildlife species was based on visual observation of presence/absence of suitable habitat, habitat quality, and overall probability of occurrence based on results of all the previous studies listed in Table 2-1.

Table 2-1. Previous Biological Studies Reviewed

Study (in rough chronological sequence)	Study Purpose	Seasons of Field Surveys	Area Included in Study
Clark (1979)	vegetation and wildlife (mainly birds)	No new field surveys; compilation of bird observations conducted by others between 1969 and 1977	Areas A, B, C, D
Gustafson (1981)	vegetation	July 1980 – August 1981	Areas A and B
Schreiber (1981)	vegetation, terrestrial arthropods, marine mollusks, fish, mammals, herpetofauna, birds	February 1979 – July 1981	Areas A and B
Corey and Massey (1990)	Belding's savannah sparrow	June 1989 – July 1990	Area B
Allen (1991)	fish	July 1990 – April 1991	Ballona Flood Control Channel and Lower Marina del Rey Harbor
Boland and Zedler (1991)	investigate functional status of Ballona saltmarsh	March – November, 1990	Area B
Carter (1991)	non-insect invertebrates	1990: April, June, July, October, November 1991: February, March, April	Areas A, B, C, D
Corey (1991)	birds	April 1990 – April 1991	Areas A, B, C, D
Frank Hovore and Associates (1991)	amphibians, reptiles, mammals	1990 - 1991	Areas A, B, C, D
Henrickson (1991)	vegetation	April – October, 1990	Areas A, B, C, D
Mattoni (1991)	terrestrial arthropods	1990 - 1991	Area B (survey of other areas was considered but dismissed by Mattoni due to highly disturbed conditions of

Table 2-1 continued

Study (in rough chronological sequence)	Study Purpose	Seasons of Field Surveys	Area Included in Study
			those areas)
Soltz (1991)	fish	July 1990	Tidal channels of Area B and Centinela Ditch in Area D
Read (1995)	vegetation and sensitive plants	April 4 – October 20, 1995	Areas A, B, C, D
Chambers Group (1996)	benthic invertebrates	August 1995; also reviews many earlier studies	Areas A, B, Ballona Channel, Marina del Rey
Haglund et al. (1996)	fish	December 10 1995 – July 31 1996	Area B, Ballona Channel, Marina del Rey
Hawkes Biological Consulting (1996)	sensitive insects	July – September, 1995	Areas A, B, C, D
Impact Sciences (1996)	amphibians and reptiles	April and June, 1996	Areas A, B, C
Keane Biological Consulting (1996)	birds (non-sensitive and sensitive); sensitive bird surveys included (but were not limited to) coastal California gnatcatcher, least Bell's vireo, southwestern willow flycatcher	June and July 1995	Areas A, B, C, D
Keane Biological Consulting (1998)	birds (non-sensitive) plus focused surveys for California least tern, least Bell's vireo, southwestern willow flycatcher	riparian birds: April and July 1996 by R. Hamilton	Areas B and D
		California least tern: May 1998	California least tern: Areas A, B, D
		least Bell's vireo, southwestern willow flycatcher: April, May, June, July of 1998	least Bell's vireo and southwestern willow flycatcher: Areas B and D
Glen Lukos Associates (2000)	fairy shrimp	May 2 and May 8, 2000	Areas A, B, C, D
Erikson (2000)	small mammals	October, 2000	Areas A, B, C, D
Mendez (2000)	El Segundo Blue butterfly	October, 2000	Areas A, B, C, D

Table 2-1 continued

Study (in rough chronological sequence)	Study Purpose	Seasons of Field Surveys	Area Included in Study
Swift (2000)	fish	No new field surveys conducted; evaluation based on previous work	Areas A, B, C, D
Psomas (2002a)	monitoring for permitted stockpiling and maintenance activities (see Introduction)	February – November, 2002	Area D

SECTION 3.0 RESULTS

Figure 3-1 provides a map showing vegetation types and other features observed on the Project site in the current surveys. Table 3-1 lists acreages of each vegetation type. Tables 3-2 and 3-3 list plant and wildlife species observed to be associated with each vegetation type. The following subsections describe biological resources specific to each component of the Proposed Project: the area proposed for mixed-use development, the Riparian Corridor, and the Bluff Restoration areas.

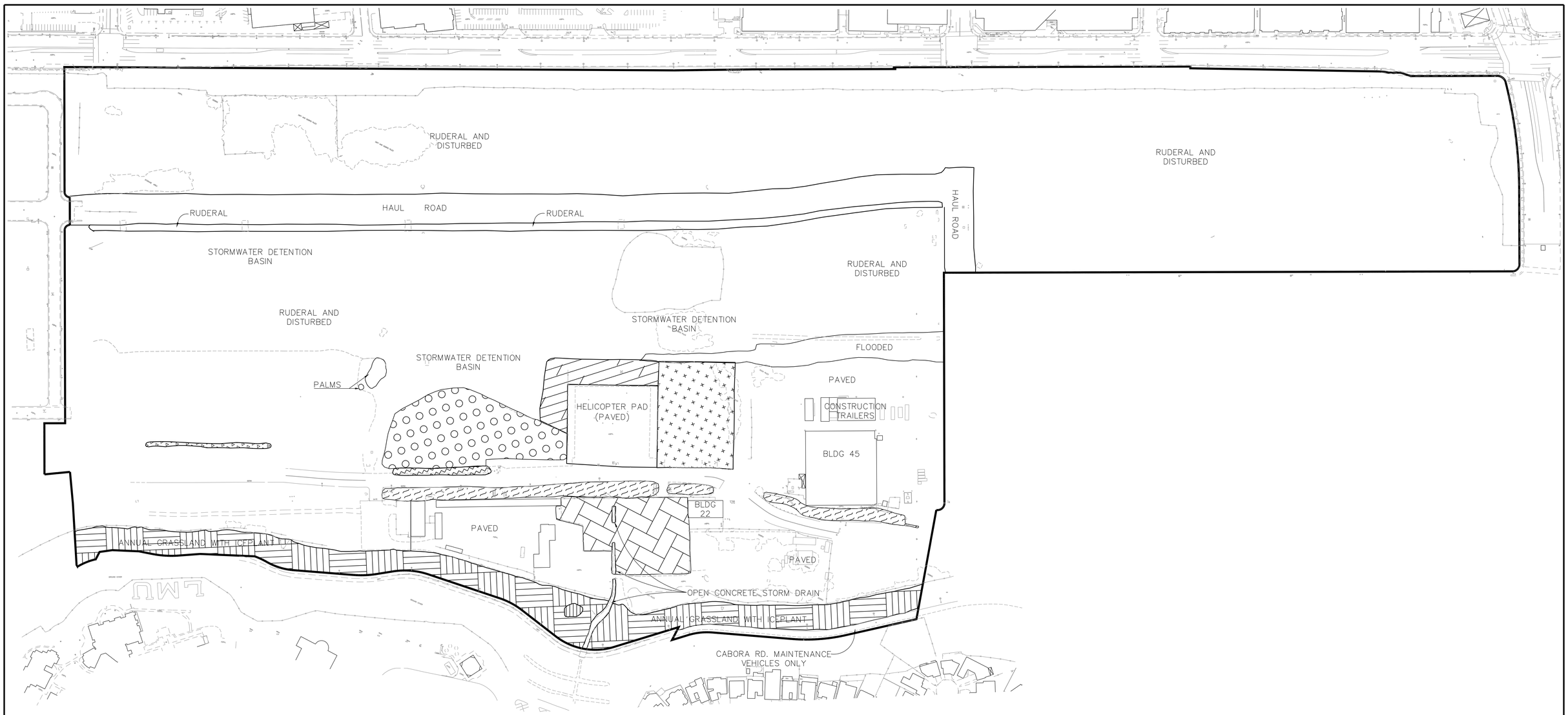
3.1 Urban Development Component

The Urban Development Component is described in the following subsections. This area has a roughly L-shaped configuration that includes sections of Centinela Ditch, parts of Teale Road, all areas between Teale and Jefferson Boulevard that are not included in the Playa Vista First Phase Project, and some property south of Teale. Please refer to the Introduction section (Figure 1-3) for boundaries. A significant portion of the Urban Development Component area is occupied by an interim storm -water detention basin which was approved and constructed to control storm-water runoff until the portion of the Riparian Corridor within the western part of the previously approved First Phase Project is constructed. This basin is shown on the vegetation map (Figure 3-1).

3.1.1 Vegetation and Wildlife

Table 3-1 (previous section) summarizes acreages of vegetation types and various constructed features (e.g. buildings, interim detention basin) present within the proposed Urban Development Component area. This section describes plant and wildlife species commonly observed. More detailed lists of species are provided in Tables 3-2 and 3-3.

Ruderal and Disturbed (49.7acres). Most of the proposed Urban Development Component area is occupied by ruderal vegetation in various densities.



Vegetation dominated by Non–Native species. See Note (3)

- Pampas Grass (Castor Bean)
- Pampas Grass (Willow, Mulefat, Ruderal)
- Pampas Grass (Mulefat, Ruderal)
- Centinela Ditch (open water with iceplant or other mixed exotics on banks)
- Oleander
- Ruderal (Mulefat)
- Annual Grassland (Iceplant) (slope below Cabora Road)

Other: Ruderal as labeled

Vegetation dominated by Native species.

- Coyote Brush.
- Sagebrush

Note: (1) Aerial topography compiled from photos taken: 4/28/02, 3/19/01, and 11/21/97
(2) Site visit completed on: 2/18/03
(3) Most common subdominant(s) listed in parentheses.

Note: Areas labeled as "Paved" include areas used as roads, storage, parking, field offices, and studios. Ruderal vegetation common in unmaintained sections.

100' 50' 0' 100' 200'

NOTE: For reduced size prints, original scale is in inches.

Playa Capital Company, LLC
Playa Vista Development

Figure 3-1. Vegetation Communities.

PSOMAS

DATE: 02/20/03 REVISED ON: 07/31/03
JOB No: 1PCC0206.01

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Table 3-1. Vegetation Acreages

	Village at Playa Vista Project (acres)			
	Mixed-Use Development	Riparian Corridor	Bluff Restoration	Total -- All Components
Vegetation Dominated by Non-Native Species				
Ruderal and Disturbed	49.7	0.0	0.0	49.7
Ruderal with Mulefat	0.1	0.0	0.0	0.1
Annual Grassland with Iceplant	0.0	0.0	4.6	4.6
Pampas Grass with Castor Bean	2.0	0.0	0.0	2.0
Pampas Grass with Willow, Mulefat, and Ruderal	1.6	0.0	0.0	1.6
Pampas Grass with Mulefat and Ruderal	0.8	0.0	0.0	0.8
Centinela Ditch	1.0	0.2	0.0	1.2
Oleander	0.1	0.0	0.0	0.1
Palms	0.1	0.0	0.0	0.1
Total -- Non-native	**55.4**	**0.2**	**4.6**	**60.2**
Vegetation Dominated by Native Species				
Coyote Brush	1.5	0.0	0.0	1.5
Sagebrush	0.0	0.0	<< 0.1	<< 0.1
Total -- Native	**1.5**	**0.0**	**<< 0.1**	**1.5**
Open Water or Flooded (Storm Water Detention)	**4.0**	**0.0**	**0.0**	**4.0**
Paved Areas, Buildings, Parking Lots, Culverts	**38.4**	**6.5**	**0.4**	**45.3**
TOTAL AREA	**99.3**	**6.7**	**5.0**	**111.0**

Table 3-2. Plant Species Observed in Current Surveys

			Vegetation Type						
LATIN NAME	COMMON NAME	NATIVE/EXOTIC	Centinela Ditch	Coyote Brush	Sagebrush	Non-Native Annual Grassland with Iceplant	Ruderal and Disturbed	Vegetation Dominated by Pampas Grass [2]	Vegetation Dominated by Other Perennial Non-Natives (Palms, Oleander)
AIZOACEAE	FIG-MARIGOLD FAMILY								
Carpobrotus edulis	iceplant	E	X	X		X	X	X	
APIACEAE	CARROT FAMILY								
Foeniculum vulgare	fennel	E					X		
APOCYNACEAE	DOGBANE FAMILY								
Nerium oleander	oleander	E							X
ARECACEAE	PALM FAMILY								
Phoenix canariensis	date palm	E							X
Washingtonia robusta	Mexican fan palm	E							X
ASCLEPIADACEAE	MILKWEED FAMILY								

[2] Includes all three subtypes identified in Figure 3-1 and described in text.

Table 3-2 continued

LATIN NAME	COMMON NAME	NATIVE/EXOTIC	Vegetation Type: Centinela Ditch	Coyote Brush	Sagebrush	Non-Native Annual Grassland with Iceplant	Ruderal and Disturbed	Vegetation Dominated by Pampas Grass [2]	Vegetation Dominated by Other Perennial Non-Natives (Palms, Oleander)
Asclepias fascicularis	narrow-leaf milkweed	N		X					
ASTERACEAE	SUNFLOWER FAMILY								
Artemisia californica	coastal sagebrush	N			X				
Baccharis pilularis	coyote brush	N		X				X	
Baccharis salicifolia	mulefat	N		X			X	X	
Chrysanthemum coronarium	garland chrysanthemum	E					X		
Gnaphalium sp.	cudweed	N		X					
Heterotheca grandiflora	telegraph weed	N		X			X		
Picris echioides	bristly ox-tongue	E					X		
Sonchus oleraceus	common sow thistle	E					X		
BRASSICACEAE	MUSTARD FAMILY								
Alyssum alyssoides	alyssum	E		X			X		
Brassica rapa	field mustard	E				X	X		
Raphanus sativus	wild radish	E				X	X	X	
CHENOPODIACEAE	GOOSEFOOT FAMILY								
Atriplex semibaccata	Australian saltbush	E					X		
Salsola tragus	Russian thistle	E					X		

Table 3-2 continued

LATIN NAME	COMMON NAME	NATIVE/EXOTIC	Vegetation Type: Centinela Ditch	Coyote Brush	Sagebrush	Non-Native Annual Grassland with Iceplant	Ruderal and Disturbed	Vegetation Dominated by Pampas Grass [2]	Vegetation Dominated by Other Perennial Non-Natives (Palms, Oleander)
EUPHORBIACEAE	SPURGE FAMILY								
Euphorbia esula	leafy spurge	E					X		
Ricinis communis	castor bean	E	X				X	X	
FABACEAE	PEA FAMILY								
Acacia longifolia	golden wattle	E							
Lotus scoparius	deerweed	N		X					
Lupinus bicolor	lupine	N		X					
Melilotus alba	white sweetclover	E					X	X	
GERANIACEAE	GERANIUM FAMILY								
Erodium botrys	broad-leaf filaree	E					X		
Erodium cicutarium	red-stem filaree	E					X		
OXALIDACEAE	OXALIS FAMILY								
Oxalis pes-caprae	Bermuda buttercup	E		X			X		
PLANTAGINACEAE	PLANTAIN FAMILY								

Table 3-2 continued

LATIN NAME	COMMON NAME	NATIVE/EXOTIC	Vegetation Type						
			Centinela Ditch	Coyote Brush	Sagebrush	Non-Native Annual Grassland with Iceplant	Ruderal and Disturbed	Vegetation Dominated by Pampas Grass [2]	Vegetation Dominated by Other Perennial Non-Natives (Palms, Oleander)
Plantago sp.	plantago	N					X		
POACEAE	GRASS FAMILY								
Avena sp.	oat	E				X			
Bromus diandrus	ripgut brome	E				X	X		
Cortaderia selloana	pampas grass	E	X	X			X	X	
Cynodon dactylon	Bermuda grass	E					X		
Paspalum sp.	paspalum	N/E (**)						X	
Pennisetum setaceum	fountain grass	E					X		
POLYGONACEAE	BUCKWHEAT FAMILY								
Eriogonum fasciculatum	wild buckwheat	E		X				X	
Rumex crispus	curly dock	E						X	
ROSACEAE	ROSE FAMILY								
Heteromeles arbutifolia	toyon	N				X			
SALICACEAE	WILLOW FAMILY								
Salix lasiolepis	arroyo willow	N					X	X	

Table 3-2 continued

LATIN NAME	COMMON NAME	NATIVE/EXOTIC	Vegetation Type: Centinela Ditch	Coyote Brush	Sagebrush	Non-Native Annual Grassland with Iceplant	Ruderal and Disturbed	Vegetation Dominated by Pampas Grass [2]	Vegetation Dominated by Other Perennial Non-Natives (Palms, Oleander)
SOLANACEAE	NIGHTSHADE FAMILY								
Nicotiana glauca	tree tobacco	E					X		
Solanum xanti	nightshade	N					X		

Notes:
** Identification to species not possible at time of survey; genus has both native and non-native species.

Table 3-3. Wildlife Species Observed in Current Surveys

Taxon	Associated Vegetation Type[3]						
	Ruderal and Disturbed	Pampas Grass W/Mixed Willow, Mulefat, and/or Ruderal[4]	Centinela Ditch	Other Perennial Non-Natives (Oleander)	Annual Grassland w/ Iceplant	Coyote Brush	Sagebrush
Birds[5]							
Anna's hummingbird *Calypte anna*		X		X			
Common bushtit *Psaltriparus minimus*		X		X			
California towhee *Pipilo crissalis*				X		X	X
White-crowned sparrow *Zonotrichia leucophrys*	X			X	X		
Song sparrow Melospiza melodia	X		X		X		
House finch *Carpodacus mexicanus*	X	X			X		
Blue-gray gnatcatcher *Polioptila caerulea*		X				X	
Northern shrike *Lanius excubitor*	X	X			X		
Western kingbird *Tyrannus verticalis*	X						
Black phoebe *Sayornis nigricans*	X	X					
Say's phoebe *Sayornis saya*	X						
Western meadowlark *Sturnella neglecta*	X				X		
Common yellowthroat *Geothlypis trichas*		X					
Northern mockingbird *Mimus polyglottos*		X		X			
Western Scrub Jay *Aphelocoma coerulescens*		X		X			
Mourning dove *Zenaida macroura*	X	X		X			

[3] Vegetation types in which no wildlife was observed are not included in this table.
[4] The three pampas grass vegetation types identified on Figure 3-1 and described in the text are grouped together for the purpose of this list.
[5] Bird species that are Federal Species of Concern are indicated by the label "FSC"; those that are California Species of Concern are indicated by the label "CSC". These and all other bird species, except non-natives, are also protected by the federal Migratory Bird Treaty Act and California Fish and Game Code. Non-native bird species are labeled as such.

Table 3-3 continued

Taxon	Associated Vegetation Type [3]						
	Ruderal and Disturbed	Pampas Grass W/Mixed Willow, Mulefat, and/or Ruderal [4]	Centinela Ditch	Other Perennial Non-Natives (Oleander)	Annual Grassland w/ Iceplant	Coyote Brush	Sagebrush
American crow *Corvus brachyrhynchos*	X						
Northern rough-winged swallow *Stelgidopteryx serripennis*			X				
Barn swallow *Hirundo rustica*			X				
Killdeer *Charadrius vociferous*	X						
American coot *Fulica americana*			X				
Mallard *Anas platyrhynchos*			X				
Common snipe *Gallinago gallinago*			X				
Snowy egret *Egretta thula* **FSC (rookeries)**			X				
Western gull *Larus occidentalis*	X						
Cooper's hawk *Accipiter cooperii* **CSC (nesting)**	X						
Red-tailed hawk *Buteo jamaicensis*	X						
American kestrel *Falco sparverius*	X (transit flyover)						
House sparrow *Passer domesticus* Not Native	X						
European starling *Sturnus vulgaris* Not Native	X						
Feral pigeon *Columba livia* Not Native	X						
Amphibians [6]							
Pacific treefrog *Hyla regilla*			X				
Mammals [7]							
Pocket gopher *Thomomys bottae*	X	X			X		

[6] Species observed do not have special status.
[7] *Ibid.*

Table 3-3 continued

Taxon	Associated Vegetation Type [3]						
	Ruderal and Disturbed	Pampas Grass W/Mixed Willow, Mulefat, and/or Ruderal [4]	Centinela Ditch	Other Perennial Non-Natives (Oleander)	Annual Grassland w/ Iceplant	Coyote Brush	Sagebrush
Raccoon *Procyon lotor*			X				
Virginia Opossum *Didelphis virginiana* Not Native			X				
Invertebrates [8]							
Cabbage White Butterfly *Pieris rapae*	X						
Marine blue butterfly *Leptotes marina*						X	
Springtail *Entomobrya* sp.	X						
Western flower thrip *Frankliniella occidentalis*	X						
Convergent ladybird beetle *Hippodamia convergens*	X						
European earwig *Forficula auricularia*	X						
Brown garden snail *Helix aspersa*	X						
Gray garden slug *Agriolimax reticulatum*	X						
Dooryard sow bug *Porcellio laevis*	X				X		
Common pill bug *Armadillidium vulgare*	X	X			X		
Green aphid *Aphid* sp.	X	X					
Black aphid *Aphid* sp.	X	X					
Argentine ant *Iridomyrmex humilis*	X	X				X	
Common cranefly *Tipula planicornis*	X	X					
Stink beetle *Eleodes* sp.	X	X					
Small ground beetle *Amara* sp.	X	X					
Woolly darkling *Cratidus osculans*	X	X					
May beetle *Phyllophaga* sp.	X	X					

[8] *Ibid.*

Table 3-3 continued

Taxon	Associated Vegetation Type[3]						
	Ruderal and Disturbed	Pampas Grass W/Mixed Willow, Mulefat, and/or Ruderal[4]	Centinela Ditch	Other Perennial Non-Natives (Oleander)	Annual Grassland w/ Iceplant	Coyote Brush	Sagebrush
Western black widow spider *Latrodectus hesperus*	X						
Trash-web spider *Cyclosa turbinata*	X						
Sow bug killer spider *Dysdera crocota*	X						
House spider *Achaearanea tepidariorum*	X						
Common orb weaver *Neoscona oxacensis*						X	
Cobweb spider *Pholcus phalangioides*	X					X	
Field cricket *Gryllus pennsylvanicus*	X					X	
Green bottle *Phaenicia* sp.	X	X					
Flesh fly *Parasarcophaga* sp.	X	X					
Common earthworm *Lumbricus terrestris*	X	X					
Arrow-headed flatworm *Bipalium kewensis*			X				
American hover fly *Metasyrphus americanus*	X						
Oleander scale *Aspidiotus nerii*				X			
Whitefly *Trialeurodes* sp.				X			
Green leafhopper *Chlorotettrix* sp.	X						
Multicolored centipede *Oxidus gracilis*	X						

Ruderal vegetation consists of plant species that can rapidly colonize open, disturbed sites. Ruderal vegetation also occurs on unmaintained portions of paved areas and gravel parking lots.

With exceptions such as telegraph weed (*Heterotheca grandiflora*), which is a native species, most ruderal plant species are not native. Some non-native species present, such as castor bean (*Ricinis communis*) and pampas grass (*Cortaderia selloana*), are also considered highly invasive, noxious weeds by the California Exotic Plant Pests Council (CALEPPC) because these plants can threaten the biodiversity of native plant communities (especially wetlands) and be difficult to eradicate once they are well established [9]. Other common species within the ruderal community include garland chrysanthemum (*Chrysanthemum coronarium*), ripgut brome (*Bromus diandrus*), filaree (*Erodium* spp.), bristly ox-tongue (*Picris echioides*), Bermuda grass (*Cynodon dactylon*), Bermuda buttercup (also known as oxalis, *Oxalis pes-caprae*), and tree tobacco (*Nicotiana glauca*). Native woody species also occur in the ruderal community as scattered, sparsely distributed and immature individuals. These species include willow (*Salix* cf. *lasiolepis*), mulefat (*Baccharis salicifolia*), and coyote brush (*Baccharis pilularis*).

Wildlife species observed foraging in ruderal vegetation include pocket gopher (*Thomomys bottae*), house sparrow (*Passer domesticus*), feral pigeon (*Columba livia*), European starling (*Sturnus vulgaris*), house finch (*Carpodacus mexicanus*), American crow (*Corvus brachyrhynchos*), and mourning dove (*Zenaida macroura*). The house sparrow, pigeon, and starling are not native. Killdeer (*Charadrius vociferous*), a native species, was observed in association with bare ground and sparsely vegetated areas within the ruderal/disturbed designation. A variety of common invertebrate species were also observed (see Table 3-3).

Ruderal with Mulefat (0.1 acre). This association is similar to the ruderal community described above except that mulefat occurs more frequently along a small, narrow strip within an area designated for expansion of the storm water detention basin. No wildlife species were observed utilizing this vegetation at the time of the survey, probably due to its highly disturbed, isolated condition.

Areas Dominated by Pampas Grass (total of 4.4 acres). For the purpose of this study, stands of vegetation dominated almost entirely by the highly invasive pampas grass are classified into three types within the proposed mixed-use development area, depending on the relative abundance of co-occurring species (subdominants) [10]. These associations occur to the immediate west, north, and east of a helicopter pad.

[9] CALEPPC maintains current lists of plant species considered to be of especially high risk in terms of threat to native ecosystems. The lists can be found at www.caleppc.org.

[10] The relative dominance of pampas grass and other associated species can be expected to be dynamic, depending on frequency of disturbance from ongoing permitted activities. The

Pampas Grass with Castor Bean (2.0 acres). An association of pampas grass and castor bean occurs west of the helicopter pad, adjacent to the north side of Teale. Iceplant (*Carpobrotus edulis*), another non-native invasive species, is a common ground cover species. A smaller fraction of the understory is dominated by non-native herbaceous and grass species that are common to the ruderal vegetation community.

Pampas Grass with Willow, Mulefat, and Ruderal (1.6 acres). This assemblage of species occurs east of the helicopter pad, adjacent to the north side of Teale. Arroyo willow (*Salix lasiolepis*) and mulefat (*Baccharis salicifolia*), both of which are native species, co-occur with the pampas grass. The understory is dominated by ruderal species. The willow and mulefat are immature and appear to have colonized the site relatively recently, taking advantage of drainage conditions that were altered by construction of the adjacent storm water detention basins. The vegetation map prepared by Henrickson (1991), which reflects 1990 conditions, shows the area dominated by ruderal species with a small clump of mulefat and no willows.

Pampas Grass with Mulefat and Ruderal (0.8 acres). North of the helicopter pad, and between the two other pampas grass associations described above, mulefat co-occurs with pampas grass and a ruderal understory.

With some exceptions, wildlife species associated with stands of pampas grass are the same as those observed in association with the ruderal vegetation. An exception is killdeer, which prefers the open ground of the ruderal and disturbed areas rather than the more densely vegetated pampas grass community. Other species observed in the pampas grass communities include blue-gray gnatcatcher (*Polioptila caerulea*), northern shrike (*Lanius excubitor*), western scrub jay (*Aphelocoma coerulescens*), and common bushtit (*Psaltriparum minimus*). However, previous field observations also indicate that parisitism and predation rates on native bird species during the breeding season may be relatively high in this part of the Project area due to the small size and fragmented condition of the vegetation. Monitoring off site to the west, along Teale during the Spring of 2002 (Psomas, 2002a) identified common yellowthroat (*Geothlypis trichas*) nesting in the pampas grass, but brown-headed cowbird (*Molothrus ater*) was observed to successfully parasitize the nests. Tracks of red fox and feral or domestic cat were also observed, both non-native species that prey on birds.

classifications described in this report represent conditions at the time of the February 18, 2003 survey by Dr. Read.

Centinela Ditch (1.0 acres). Sections of Centinela Ditch located within the Proposed Project area total about one acre. The base of the ditch is covered with open water during most months of the year. Banks of the ditch are dominated almost entirely by iceplant, with castor bean and pampas grass occurring in a small clump near Building 22. This ditch is a remnant of the historical Centinela Creek, which has become highly degraded over at least a century of human alterations and occupation.

Wildlife species observed in association with Centinela Ditch include American coot (*Fulica americana*), mallard (*Anas platyrynchos*), common snipe (*Gallinago gallinago*), snowy egret (*Egretta thula*), and Pacific treefrog (*Hyla regilla*). Tracks of racoon (*Procyon lotor*) and opossum (*Didelphis virginiana*) were observed in mud adjacent to the ditch.

The bird species listed above would also be expected to visit the storm water detention basin, if water is present.

Oleander (0.1 acre). Oleander (*Nerium oleander*) is a non-native perennial shrub that was planted in the past as an ornamental hedge along the north edge of Teale. No wildlife species were observed to be utilizing this hedge during the winter survey, but during monitoring conducted off-site to the west along Teale in 2002 (Psomas, 2002a), species observed to utilize the hedge along Teale for nesting included northern mockingbird (*Mimus polyglottos*), California towhee (*Pipilo crissalis*), and mourning dove. As stated above for bird species associated with the pampas grass communities, parasitism and predation of bird nests along Teale during the breeding season appear to be common occurrences.

Palms (0.1 acre). A small grove of palm trees occurs adjacent to the storm water detention basin. Parts of the grove were flooded at the time of the survey. Two species of palm, Canary Island date palm (*Phoenix canariensis*) and Mexican fan palm (*Washingtonia robusta*) occupy this grove. No wildlife species were observed utilizing the palm trees at the time of the survey.

Coyote Brush (1.5 acres). Coyote Brush is a vegetation type classification based on Sawyer and Keeler-Wolfe (1997). As the name indicates, the vegetation is dominated by coyote brush (*Baccharis pilularis*). This vegetation occupies an unpaved portion of property adjacent to Building 22 and south of Teale. Other shrub species observed during the survey included three individual mulefat plants, castor bean, deerweed (*Lotus scoparius*), and sagebrush (*Artemisia californica*). The understory includes non-native annual grasses (brome, oat), pampas grass, iceplant, and filaree.

Wildlife species observed in association with the coyote brush scrub at the time of the field survey included blue-gray gnatcatcher, California towhee (*Pipilo crissalis*), and a marine blue butterfly (*Leptotes marina*).

3.1.2 Threatened and Endangered Species

No plant or wildlife species on federal or state lists as threatened or endangered were observed during the current surveys or previous studies. The Discussion section (Section 4) addresses potential for such species to occur on the Project site, based on presence/absence of suitable habitat, the current surveys, and previous studies.

3.1.3 Other Special Status Species

No special status plant species were observed during the current surveys. The Discussion section (Section 4) addresses potential for such species to occur, based on presence/absence of suitable habitat, the current surveys, and previous studies.

The following special status wildlife species were observed during the field survey:

Snowy egret (*Egretta thula*). An individual of this species was observed foraging in the open water along the base of Centinela Ditch. Snowy egret, when present in a rookery, is a Federal Species of Concern. Snowy egrets have been observed at Playa Vista as isolated individuals but not in rookeries.

Cooper's hawk (*Accipiter cooperii*). An individual of this species was observed flying over the interior portion of the Proposed Project area, and it is possible that the species forages on the site. Cooper's hawk, when nesting, is a California Species of Special Concern. No nesting habitat for this species (groves of tall trees with broad canopy) occurs on the Project site.

The Discussion section (Section 4) addresses potential for other special status wildlife species to occur on the Project site.

3.2 Riparian Corridor

The area proposed for creation of a Riparian Corridor consists of a flat portion of property located between Teale (and the future Bluff Creek Drive) and the base of the bluff. The Corridor area includes parts of Centinela Ditch.

3.2.1 Vegetation and Wildlife

Most of the Riparian Corridor area consists of abandoned buildings and deteriorating pavement with sparse ruderal vegetation. The description of the ruderal vegetation and Centinela Ditch communities provided for proposed Urban Development Component (Section 3.1.1), with associated wildlife, also applies to the Riparian Corridor area, with the exception that the ruderal vegetation is more scattered and open in the Riparian Corridor area, growing primarily along edges

of parking lots and in unmaintained sections of pavement. As Table 3-1 shows, vegetation acreages that comprise the 6.7-acre Riparian Corridor component of the Project site are as follows:

- 0.2 acre of Centinela Ditch;
- 6.5 acres of paved areas, buildings, parking lots, and culverts.

3.2.2 Threatened and Endangered Species

No plant or wildlife species on federal or state lists as threatened or endangered were observed during the current surveys or previous studies. The Discussion section (Section 4) addresses potential for such species to occur on the Riparian Corridor site, based on presence/absence of suitable habitat, the current surveys, and previous studies.

3.2.3 Other Special Status Species

No special status plant species were observed on the Riparian Corridor site during the current surveys or previous studies. The Discussion section (Section 4) addresses potential for such species to occur, based on presence/absence of suitable habitat, the current surveys, and previous studies.

The following special status wildlife species were observed during the current field survey:

Snowy egret (*Egretta thula*). An individual of this species was observed foraging in the open water along the base of Centinela Ditch. Snowy egret, when present in a rookery, is a Federal Species of Concern. Snowy egrets have been observed at Playa Vista as isolated individuals but not in rookeries.

The Discussion section (Section 4) addresses potential for other special status wildlife species to occur on the Riparian Corridor site.

3.3 Bluff Restoration

The site proposed for bluff restoration is located south of, and adjacent to, the proposed Riparian Corridor. The area consists of a north-facing lower slope of the current bluff, below Cabora Road.

3.3.1 Vegetation and Wildlife

Vegetation of the proposed Bluff Restoration area consists of non-native annual grassland (dominated by brome and oat), iceplant, and a small isolated stand of sagebrush (*Artemisia californica*). Isolated individuals of toyon (*Heteromeles arbutifolia*), coyote brush, and nightshade (*Solanum xanti*) are also present.

As Table 3-1 shows, vegetation acreages that comprise the 5.0-acre Bluff Restoration area are as follows:

- 4.6 acres of non-native annual grassland with iceplant;
- 0.4 acre consisting of concrete culvert and maintenance road;
- a very small fraction (<<0.1 acre) occupied by sagebrush.

Wildlife observed in association with non-native annual grassland included northern shrike, western kingbird (*Tyrannus verticalis*), black phoebe (*Sayornis nigricans*), Say's phoebe (*Sayornis saya*), western meadowlark (*Sturnella neglecta*), and pocket gopher. A California towhee was observed foraging in the isolated stand of sagebrush.

3.3.2 Threatened and Endangered Species

No plant or wildlife species on federal or state lists as threatened or endangered were observed during the current surveys or previous studies. The Discussion section (Section 4) addresses potential for such species to occur on the Bluff Restoration site, based on presence/absence of suitable habitat, the current surveys, and previous studies.

3.3.3 Other Special Status Species

No special status plant or wildlife species were observed during the current surveys. The Discussion section (Section 4) addresses potential for such species to occur, based on presence/absence of suitable habitat, the current surveys, and previous studies.

SECTION 4.0 DISCUSSION

4.1 Urban Development Component

4.1.1 Common Vegetation and Wildlife

Vegetation on the Proposed Project site which occupies the proposed Urban Development Component area consists of early successional species, primarily non-native, highly invasive taxa such as pampas grass, garland chrysanthemum, bristly ox-tongue, wild brome and oat, and castor bean that are adapted to areas of disturbance. Native plant species are present but limited to small, fragmented stands.

Many of the wildlife species utilize more than one vegetation type, regardless of native or non-native status of the dominant plant species. Observations in the vicinity of the Project site along Teale (Psomas, 2002a) indicate that several of the smaller bird species utilize the exotic vegetation along Teale during the

nesting season, and would probably utilize other vegetation for nesting but at some risk of predation or parasitism due to the exposed condition of the site. In addition, killdeer have been observed to utilize open disturbed ground and even gravel parking lots for nesting. While none of the species known to nest in the area are threatened, endangered, or otherwise of special status, all of these species and their nests (except non-native species as listed in Table 3-3) are protected by the federal Migratory Bird Treaty Act and California Fish and Game Code until chicks have fledged. The previous observations (Psomas, 2002a) also indicate that bird species attempting to nest in fragmented stands of vegetation are subject to mortality from a variety of sources, including brown-headed cowbirds (a native parasitic species) and non-native mammals such as red foxes and cats.

4.1.2 Threatened and Endangered Species

While the California Natural Database was consulted for purposes of this study, in this case the database can serve only as a general guide to potential occurrence of sensitive species in the Los Angeles region, due to the fact that the database is not necessarily up to date with recent survey information. Table 4-1 lists threatened and endangered species whose present or historical range includes coastal Los Angeles County. The list is based on knowledge and experience in the south coast region, previous studies, and the California Natural Diversity Database. Listing status is based on the January, 2003 version of the California Natural Diversity Database.

More than thirty years of biological studies at Playa Vista (Table 2-1) indicate that none of the species listed in Table 4-1 reside on the Project site or depend on the site's resources for their daily activities. Habitat features required for breeding and/or foraging are absent. Some species listed in Table 4-1 occur elsewhere at Playa Vista or have been observed flying over the Project site. These species are discussed below.

Riparian habitat marginally suitable for least Bell's vireo and southwestern willow flycatcher occurs off site in former planning area B. Previous surveys in 1998 for breeding least Bell's vireo and southwestern willow flycatcher using U.S. Fish and Wildlife Service survey protocols were negative (Keane Biological Consulting, 1998). No suitable breeding habitat for these species is present on the Project site.

A transit flight of the California least tern was observed over Centinela Ditch, west of the Project site, during the 1998 focused surveys for sensitive birds (Keane Biological Consulting, 1998). The individual was not observed foraging on the Project site.

Table 4-1. Listed or Proposed Threatened or Endangered Species Potentially Present in the Coastal Region of Los Angeles County

Species	Habitat and Distribution	Status
PLANTS		
Beach spectaclepod Dithyrea maritima	Sandy soils on dunes and in coastal scrub	Federal Endangered, State Threatened
California orcutt grass *Orcuttia californica*	Vernal pools. SW CA and northern Baja California, Mexico	Federal and State Endangered
Coastal dunes milk vetch *Astragalus tener var. titi*	Coastal dunes & bluffs, coastal strand vegetation and in moist sandy depressions on coastal terraces. Central coast (Monterey Co.) to south coastal CA	Federal and State Endangered
Gambel's watercress *Rorippa gambellii*	Marshes, swamps, and lake margins. South central coast and south coast CA and Mexico	Federal Endangered, State Threatened
Lyon's pentachaeta *Pentachaeta lyonii*	Chaparral and grassland. Central south coast and south Channel Islands, CA	Federal and State Endangered
Marsh sandwort *Arenaria paludicola*	Marshes, bogs and swamps. South coast and central coastal CA, to WA	Federal and State Endangered
Saltmarsh bird's-beak *Cordylanthus maritimus* ssp. *martitimus*	Coastal salt marsh, south coastal CA, and northern Baja California, Mexico	Federal and State Endangered
San Diego button-celery *Eryngium aristularum* var. *parishi*	Vernal pools, marsh, and wet meadows. South coastal and Peninsular Ranges, CA, and n Baja California, Mexico	Federal and State Endangered
San Fernando Valley spine flower *Chorizanthe parryi* var. *fernandina*	Coastal scrub. Formerly presumed extinct. Extant in Ventura Co.	State Endangered
Ventura marsh milk vetch *Astragalus pycnostachyus* var. *lanosissimus*	Coastal salt marsh. Central south coast CA. Extant only in Ventura Co., formerly presumed extinct	Federal and State Endangered
INVERTEBRATES		
El Segundo blue butterfly *Euphilotes battoides allyni*	Coastal dune habitat with suitable host plants (coastal buckwheat)	Federal Endangered
Quino checkerspot butterfly *Euphydryas editha quino*	Open grassland and shrubland with suitable host plants	Federal Endangered
Riverside fairy shrimp *Streptocephalus woottoni*	Vernal pools filled by spring/winter rains	Federal Endangered
San Diego fairy shrimp *Branchinecta sandiegonensis*	Vernal pools	Federal Endangered
FISH		
Santa Ana sucker *Catostomus santaanae*	Medium-sized perennial streams	Federal Threatened
Steelhead trout (So. Cal. ESU) *Oncorynchus mykiss*	Cold, clear, gravelly streams	Federal Endangered

Table 4-1 continued

Species	Habitat and Distribution	Status
Tidewater goby *Eucyclogobius newberryi*	Brackish lagoons, 8-10 ppt salinity	Federal Endangered
Unarmored threespine stickleback *Gasterosteus aculeatus williamsoni*	Slow moving streams with refuge vegetation	Federal and State Endangered
AMPHIBIANS		
Arroyo toad *Bufo californicus*	Flowing freshwater with shallow pools, sand or gravel substrate	Federal Endangered
California red-legged frog *Rana aurora draytonii*	Dense riparian vegetation in association with deep, perennial water	Federal Threatened
BIRDS		
Bald eagle (nesting and wintering) *Haliaeetus leucocephalus*	Seacoasts, rivers, and lakes where fish or other prey available	Federal Threatened (Proposed for Delisting), State Endangered
Belding's savannah sparrow *Passerculus sandwichensis beldingi*	Low pickleweed above mean high tide; salt grass; mudflats, beaches, rocks, other coastal vegetation.	State Endangered
California brown pelican (nesting colony) *Pelecanus occidentalis*	Nest - rocky offshore islands	Federal and State Endangered
California least tern (nesting colony) *Sterna antillarum browni*	Marine and estuarine shores with nearby lagoons	Federal and State Endangered
Coastal California gnatcatcher *Polioptila californica californica*	Coastal sage scrub	Federal Threatened
Least Bell's vireo *Vireo bellii pusillus*	Willow riparian vegetation	Federal and State Endangered
Light-footed clapper rail *Rallus longirostris levipes*	Coastal salt marsh	Federal and State Endangered
Southwestern willow flycatcher *Empidonax traillii extimus*	Willow riparian vegetation	Federal Endangered (southwestern subspecies only); State Endangered (all subspecies)
Western snowy plover (nesting) *Charadrius alexandrinus nivosus*	Sandy beaches and lagoon margins	Federal Threatened
Mountain plover *Charadrius montanus*	Grassy or bare dirt fields.	Federal Proposed Threatened
Mammals		
Pacific pocket mouse *Perognathus longimembris pacificus*	Fine alluvial to gravelly soil	Federal Endangered

Belding's savannah sparrow occurs as a small population in association with pickleweed vegetation in former planning area B (Ballona saltmarsh)(Keane Biological Consulting, 1998). Pickleweed and other saltmarsh vegetation is absent from the Project site.

Based on the above considerations, all of the species listed in Table 4-1 are considered absent from the Project site because there is no suitable habitat and focused surveys in the past were negative. The transit flight of California least tern observed in 1998 indicates that while certain avian species might occasionally fly over the site in transit to or from the Ballona Wetlands, or the Ballona Flood Control Channel, the Project site does not provide significant foraging or breeding resources for these species.

4.1.3 Other Special Status Species

The U.S. Fish and Wildlife Service, California Department of Fish and Game, and non-profit groups such as the California Native Plant Society and Audubon Society have developed extensive lists of species that are considered uncommon, rare, are Species of Special Concern, or have Fully Protected status with the State. The following paragraphs discuss special status species that were either observed during this study or for whch marginal habitat is present and the species has been observed in the past within Area D.

Western dichondra (*Dichondra occidentalis*). Western dichondra is on List 4 of the California Native Plant Society, which is a "watch" list of species of limited distribution. Western dichondra was reported by Henrickson (1991) to occur "near the large ridge" in Area D, but subsequent surveys in 1995 and 1998 did not detect the species. At the time of Henrickson's survey in 1990 and the subsequent surveys in 1995 and 1998, the "large ridge" consisted of rubble and soil that was stockpiled on a portion of the former airport runway. Henrickson's vegetation map shows this ridge paralleling Jefferson Boulevard and located in the north-central section of the Urban Development Component area. Current surveys did not detect species.

Snowy egret (*Egretta thula*). An individual of this species was observed foraging in the open water along the base of Centinela Ditch during the current study. Snowy egret, when present in a rookery, is a Federal Species of Concern. Snowy egrets have been observed at Playa Vista as isolated individuals but not in rookeries. Extensive foraging opportunities exist off site in the Ballona Wetlands and therefore it is highly unlikely that the snowy egret is dependent upon Centinela Ditch for foraging.

Cooper's hawk (*Accipiter cooperii*). An individual of this species was observed flying over the interior portion of the Urban Development Component area during the current study, and it is possible that it forages on the site. Cooper's hawk,

when nesting, is a California Species of Special Concern. No nesting habitat (groves of multiple-branching, tall trees) occurs on the project site. The grove of palm trees on the site is unlikely breeding habitat for Cooper's hawk (or any other raptor) due to its small size and lack of dense branching canopy.

Other Species. With the exception of nuisance non-native species such as European starling and feral pigeon, most bird species and their active nests are protected during nesting season until the chicks have fledged, under the federal Migratory Bird Treaty Act and California Fish and Game Code. Most of the site provides nesting habitat for one or more non-listed bird species that fall into this category. Killdeer will utilize open ground and even gravel parking lots. Clumps of vegetation, whether or not comprised of non-native plant species, provide limited nesting habitat for various other passerine bird species, including hummingbirds, common yellowthroat and mourning dove. Abandoned buildings provide nesting opportunities for mourning dove, barn owl, and house finch. The site does not have tall groves of trees with dense canopy that would provide suitable nesting habitat for larger common raptors such as red-tailed hawk. The small clump of palm trees on the site, adjacent to the interim detention basin, potentially provides limited nesting habitat for smaller bird species such as kestrel, mourning dove, and hummingbirds.

4.2 Riparian Corridor

4.2.1 Common Vegetation and Wildlife

The area proposed for riparian restoration consists largely of old pavement, a gravel parking lot, and small sections of Centinela Ditch. The discussion of ruderal vegetation and vegetation along Centinela ditch in Section 4.1 applies to this area, with the exception that the Riparian Corridor area is much smaller than the Urban Development Component and this difference in size is associated with differences in numbers of species observed.

4.2.2 Threatened and Endangered Species

Threatened and Endangered plant and wildlife species that are currently or historically known to occur in the region are listed in Table 4.1. No habitat for these species occurs on the Riparian Corridor site. As discussed in Section 4.1.2, a transit flight (not foraging) of the California least tern was observed over Centinela Ditch during the 1998 focused surveys for sensitive birds (Keane Biological Consulting, 1998). This observation indicates that while certain species might occasionally fly over the site in transit to or from the Ballona Wetlands or the Ballona Flood Control Channel, the Project site does not provide significant foraging or breeding resources for these species.

4.2.3 Other Special Status Species

The U.S. Fish and Wildlife Service, California Department of Fish and Game, and non-profit groups such as the California Native Plant Society and Audubon Society have developed extensive lists of species that are considered uncommon, rare, are Species of Special Concern, or have Fully Protected status with the State. The following paragraphs discuss special status species that were either observed during this study or for which marginal habitat is present and the species has been observed in the past within Area D.

Snowy egret (*Egretta thula*). An individual of this species was observed foraging in the open water along the base of Centinela Ditch during the current study. Snowy egret, when present in a rookery, is a Federal Species of Concern. Snowy egrets have been observed at Playa Vista as isolated individuals but not in rookeries. Extensive foraging opportunities exist off site in the Ballona Wetlands and therefore it is highly unlikely that the snowy egret is dependent upon Centinela Ditch for foraging.

Cooper's hawk (*Accipiter cooperii*). An individual of this species was observed flying over the interior portion of the Proposed Project area during the current study. It is possible that this species forages on some or all portions of the Proposed Project, including the Riparian Corridor site, although the prey base would be very small due to scarcity of habitat. Cooper's hawk, when nesting, is a California Species of Special Concern. No nesting habitat (groves of multiple-branching, tall trees) occurs on the Riparian Corridor site.

Other Species. With the exception of nuisance non-native species such as European starling and feral pigeon, most bird species and their active nests are protected during nesting season until the chicks have fledged, under the federal Migratory Bird Treaty Act and California Fish and Game Code. Most of the site provides nesting habitat for one or more non-listed bird species that fall into this category. Killdeer will utilize open ground and even gravel parking lots. Clumps of vegetation, whether or not comprised of non-native plant species, provide limited nesting habitat for various other passerine bird species, including hummingbirds, common yellowthroat and mourning dove. Abandoned buildings provide nesting opportunities for mourning dove, barn owl, and house finch. The site does not have tall groves of trees with dense canopy that would provide suitable nesting habitat for larger common raptors such as red-tailed hawk.

4.3 Bluff Restoration

4.3.1 Common Vegetation and Wildlife

The site proposed for bluff restoration is a north-facing slope dominated by non-native annual grasses and iceplant, with a small patch of sagebrush. A relatively

small number of common bird species were observed on the site during the current survey.

4.3.2 Threatened and Endangered Species

Threatened and Endangered plant and wildlife species that are currently or historically known to occur in the region are listed in Table 4.1. No habitat for these species, including California least tern, occurs on the Bluff Restoration site.

4.3.3 Other Special Status Species

Nesting habitat for birds is absent, with the possible exception of the small stand of sagebrush and some isolated ornamental shrubs, which collectively might provide marginal nesting opportunities for smaller bird species such as house finch and hummingbirds.

SECTION 5.0 WILDLIFE CORRIDORS AND LINKAGES

In an urban watershed such as that which surrounds the Proposed Project, habitats tend to become highly fragmented. A large scientific literature has emerged which addresses the significance of this fragmentation in terms of impacts on various wildlife species, although actual field data (as compared to theory) are limited (Psomas, 2002b). In general, wildlife corridors are considered in relation to mammalian wildlife, rather than in relation to such groups as birds or butterflies which have aerial capability to move between widely dispersed habitat patches.

The Proposed Project site is surrounded by urban development, and presently there is no connectivity between the Project site and core habitat preserves such as the Santa Monica Mountains that could provide shelter or food resources for larger dispersing mammals such as coyote or mountain lion. It is possible that construction of the Riparian Corridor and Bluff Restoration components of the Project, along with the previously constructed Freshwater Marsh off site, could become part of a larger watershed system if linked to a centralized corridor such as the Ballona Flood Control Channel. However, because many mammals that use wildlife corridors are also predators, such a linkage system could have unintended adverse effects on birds and other potential prey species within the Ballona wetlands.

SECTION 6.0 CONCLUSIONS

This study reaches the following conclusions based on field observations and results from previous studies. Due to similarities in vegetation these conclusions apply to all components of the Proposed Project except where noted:

1) Consistent with previous studies, the Project site does not provide suitable habitat for plant or wildlife species that are on federal or state lists as Threatened, Endangered, or Rare. Therefore none of these species would be expected to occur on the property or be dependent on the property's resources for their daily activities.

2) Special status plant species were not observed on the Project site and are highly unlikely to occur due to a long history of disturbance. With the exception of western dichondra, previous studies have not detected special status plant species on the property. Western dichondra was observed by Henrickson in 1990, in the northern part of the proposed mixed-use development area, but the species has not been observed since that survey. Western dichondra is on List 4 of the California Native Plant Society, which is a "watch" list. The species is not federal or state listed as Threatened, Endangered, or Rare.

3) The property provides limited foraging opportunities for raptors, some of which (e.g. Cooper's hawk) are Species of Concern and others (e.g. red-tailed hawk) have other protection status under the federal Migratory Bird Treaty Act and California Fish and Game Code. Foraging opportunities are limited because the potential prey base (rodents, reptiles, small birds – depending on raptor species) is relatively small compared to the Ballona Wetlands and Freshwater Marsh, off site about 0.5 mile to the west.

4) Vegetated parts of the property provide breeding opportunities for a variety of small bird species, none of which are Threatened, Endangered, or Rare but are protected while breeding by the federal Migratory Bird Treaty Act and California Fish and Game Code. However, the breeding habitat (where present) is small and fragmented, a condition which reduces the number of breeding territories that are possible for most species, and exposes breeding pairs to high risk of predation and parasitism. Restoration of riparian and coastal bluff scrub habitats would be expected to reduce this fragmentation, reduce risk of predation, and expand the amount of area available to establish breeding territories.

5) Unvegetated parts of the property provide breeding opportunities for killdeer, which prefers open ground with zero to sparse vegetation. Old

or abandoned buildings provide breeding opportunities for a variety of other species such as house finch. None of these species are Threatened, Endangered, or Rare.

6) While previous studies and the current survey indicate utilization of the Project site by local small mammals such as raccoon and opossum, urbanization of the surrounding watershed has severed any historical wildlife corridor linkages that might have been present between coastal and inland habitats.

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