



April 29, 2009 (Updated November 17, 2009)

Jeffrey Pomeroy
JIC-CP DIAMOND DEVELOPMENT, LLC
7777 Center Avenue, Suite 300
Huntington Beach, CA 92647

**Re: RESULTS OF THE PHASE III BURROWING OWL SURVEYS FOR THE
DIAMOND SPECIFIC PLAN PROJECT SITE, CITY OF LAKE ELSINORE,
RIVERSIDE COUNTY, CALIFORNIA**

Dear Mr. Pomeroy:

This report presents the results of the Phase III burrowing owl (*Athene cunicularia*) (BUOW) surveys conducted by **PCR Services Corporation (PCR)** for The Diamond Specific Plan project site (“the study area”) located in the City of Lake Elsinore, Riverside County, California (Figure 1, *Regional Map*, attached). The Phase III surveys were conducted to ensure compliance with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP).¹

STUDY AREA

The approximately 87-acre study area is located east of Lake Elsinore, southwest of the intersection of Diamond Drive and E. Lakeshore Drive.² The study area is located within U.S. Geological Survey (USGS) 7.5-minute Lake Elsinore, California topographic quadrangle, Section 16, T. 6 S., R. 4 W. as shown in Figure 2, *Vicinity Map*, attached. The study area consists of a developed commercial area within the northern portion, Lake Elsinore Diamond Stadium and a paved parking lot in the southern central portion, and vacant lots throughout the remainder of the study area. The vacant lots within the study area are primarily comprised of disturbed and ruderal areas. The western boundary of the study area also includes barren (lakebed) and tamarisk/willow scrub communities. The elevation on the study area ranges from 1,238 to 1,279 feet (377 to 390 meters) above mean sea level (msl).

The study area is bordered by commercial development to the north, south, and east. The San Jacinto River and Lake Elsinore are immediately adjacent to the study area to the west. The study area is located within the Elsinore Area Plan of the MSHCP and the majority of the study area is located within the Burrowing Owl Survey Area.

¹ *Dudek & Associates. June 17, 2003. Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). Draft Final MSHCP. Prepared for the County of Riverside Transportation and Land Management Agency.*

² *The study area boundary was updated from the original boundary (which utilized county APN boundaries) to the field survey data provided by the project engineer, Wilson Mikami Corporation, which is the legal boundary. There were only very minor discrepancies between the original and updated boundary and the updated boundary has been incorporated into the most recent documentation for the biological studies.*



PLANT COMMUNITIES

Plant communities occurring within the study area include: developed, disturbed, ruderal, ruderal/disturbed, barren (lakebed), buckwheat scrub, tamarisk/ruderal, and tamarisk/willow scrub. The locations of plant communities within the study area are shown in Figure 3, *Vegetation Communities*, attached.

Developed

Developed areas consist of commercial development in the northern portion of the study area and the Lake Elsinore Diamond stadium and paved parking lots in the central and southern portions of the study area. Developed areas comprise 44.2 acres of the study area.

Disturbed

At the time that the vegetation communities were mapped (in December 2008), the majority of the study area was comprised of vacant, disced fields with little to no vegetation. Sparse, weedy species found within this community include black mustard (*Brassica nigra*), Russian thistle (*Salsola tragus*), saltmarsh heliotrope (*Heliotropium curassavicum*), tarweed (*Hemizonia* sp.), coyote brush (*Baccharis pilularis*), jimson weed (*Datura wrightii*), giant reed (*Arundo donax*), common sunflower (*Helianthus annuus*), foxtail chess (*Bromus madritensis* ssp. *rubens*), California buckwheat (*Eriogonum fasciculatum*), vinegar weed (*Trichostema lanceolatum*), rattlesnake weed (*Chamaesyce albomarginata*), curly dock (*Rumex crispus*), saltgrass (*Distichlis spicata*), tamarisk (*Tamarix ramosissima*), mule fat (*Baccharis salicifolia*), deerweed (*Lotus scoparius*), five-hooked bassia (*Bassia hyssopifolia*), telegraph weed (*Heterotheca grandiflora*), saltbush (*Atriplex* sp.), dove weed (*Eremocarpus setigerus*), common fiddleneck (*Amsinckia menziesii*), palo verde (*Cercidium* sp.), cocklebur (*Xanthium strumarium*), and brittlebush (*Encelia farinosa*). At the time that the burrowing owl surveys were conducted (in March 2009), the disturbed areas within the study area had grown ruderal, weedy vegetation, which dominated this community; however, for consistency, the plant communities map was not updated but rather is representative of the conditions existing at the time that the plant communities were mapped. Disturbed areas comprise 37.3 acres of the study area.

Ruderal

Ruderal areas are dominated by non-native, weedy species. A small ruderal community is located within the eastern portion of the study area where piles of dirt had been previously mounded. Species found within this community include black mustard, Mexican fan palm (*Washingtonia robusta*), tamarisk, gum tree (*Eucalyptus* sp.), mule fat, California buckwheat, and vinegar weed. The ruderal area comprises 0.4 acre of the study area.



Ruderal/Disturbed

The area just west of Diamond Drive in the northeastern portion of the study area was previously disturbed, but currently has a fair amount of ruderal vegetation growing on it. Russian thistle is the dominant ruderal plant species observed within this community. Associated plant species include black mustard, London rocket (*Sisymbrium irio*), and red-stemmed filaree (*Erodium cicutarium*). The ruderal/disturbed community comprises 3.6 acres of the study area.

Barren (Lakebed)

The western boundary of the study area overlaps with a portion of the Lake Elsinore lakebed. At the time of the site visits, the on-site portion of the lakebed was dry and contained no vegetation. The barren on-site portion of the lakebed comprises 1.0 acre of the study area.

Buckwheat Scrub

A thin strip of buckwheat scrub was observed along Diamond Drive within the southeastern portion of the study area. This community is dominated by California buckwheat. Deerweed and brittlebush are also present within this community. Buckwheat scrub comprises 0.3 acre of the study area.

Tamarisk/Ruderal

Two small patches of tamarisk/ruderal communities occur within the study area. One patch is located at the western end of Campbell Street. The other patch is located just north of Malaga Road in the southeastern portion of the study area. This community is dominated by tamarisk with a ruderal understory that is dominated by black mustard. Other species found within this community include Russian thistle, foxtail chess, mule fat, black willow (*Salix goodingii*), saltmarsh heliotrope, common sunflower, red-stemmed filaree, cocklebur, London rocket, tarplant (*Hemizonia* sp.), coastal goldenbush (*Isocoma menziesii*), and California buckwheat. The tamarisk/ruderal community comprises 0.4 acre of the study area.

Tamarisk/Willow Scrub

The western boundary of the study area overlaps with a small area of tamarisk/willow scrub. The majority of this community exists just off-site, adjacent to the northwestern boundary of the study area, along the San Jacinto River, which flows out into Lake Elsinore. This community is dominated by tamarisk, and also includes black willow. Tamarisk/willow scrub comprises 0.4 acre of the study area.



METHODOLOGY

The study area is located within the Burrowing Owl Survey Area of the MSHCP. This report is prepared in compliance with The California Burrowing Owl Consortium's *Burrowing Owl Survey Protocol and Mitigation Guidelines*³ and the County of Riverside's *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area*.⁴ The surveys consisted of three phases: Phase I, Habitat Assessment, Phase II, Burrow Survey, and Phase III, Burrowing Owl Surveys, Census, and Mapping as described below.

Phase I - Habitat Assessment and Phase II - Burrow Survey

The BUOW Phase I, Habitat Assessment, and Phase II, Burrow Survey, were conducted by PCR biologists Maile Tanaka and Crysta Dickson on December 10, 2008. The habitat assessment and burrow survey were conducted within the study area and a 150-meter buffer zone. To determine presence/absence of suitable habitat for BUOW, the study area was thoroughly searched for areas containing suitable habitat indicators. Key indicators include the presence of low-growing vegetation within grassland, desert, and scrublands; small fossorial mammals and mammal burrows; and isolated, man-made features (e.g., cement culverts; cement, asphalt, or wood debris piles; or openings beneath cement or asphalt pavement).

The Phase II, Burrow Survey was conducted immediately following the Phase I, Habitat Assessment, to determine if any of the existing small fossorial mammal burrows contained evidence of BUOW. The burrow survey consisted of thoroughly examining all existing fossorial mammal burrows, debris piles, and rock outcrops for evidence of BUOW, including molted feathers, prey remains, cast pellets, eggshell fragments, and excrement at or near the burrow entrance. Transects were utilized in all accessible areas, spaced no more than 100 feet apart, to allow for 100 percent visibility (refer to Figure 4, *Transect Map and Location within the MSHCP Burrowing Owl Survey Area*, attached). Conditions at the time of the assessment were relatively clear skies (less than 5% cloud cover), with winds between 0 and 2 miles per hour (mph) and air temperatures ranging from 58° to 70° Fahrenheit.

Phase III – Burrowing Owl Surveys, Census and Mapping

A focused BUOW survey, census and mapping (Phase III) was conducted by PCR biologists Maile Tanaka, Zeke Cooley, Linda Robb, and Crysta Dickson. The Phase III survey consisted of four site visits on four separate days. Transects were utilized in all accessible areas, spaced no more than 100 feet apart, to allow for 100 percent visibility. In addition, observations were made from fixed locations with the use of binoculars. All surveys were conducted one hour prior to two hours after sunrise during suitable weather conditions. If applicable, any BUOW observations were

³ *The Burrowing Owl Consortium. April 1993. Burrowing Owl Survey Protocol and Mitigation Guidelines.*

⁴ *County of Riverside. March 29, 2006. Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area.*



recorded and mapped, including occupied burrow locations and specific behavior patterns. Surveys were conducted on March 4, 18, 25, and 31. Weather conditions consisted of clear to relatively clear skies, with the exception of overcast conditions which occurred on March 4, 2009, with winds between 0 and 2 mph and air temperatures ranging from 40° to 60° Fahrenheit. Survey data is presented in Table 1, *Phase III Survey Data*, below.

Table 1

Phase III Survey Data

Date	Time	Wind (mph)	Temperature (F)	Weather	Results	Surveyors
3-4-2009	6:22 A.M. - 8:57 A.M.	0/2	40°-54°	Relatively Clear (< 5%)-Cloudy (90%)	No BUOW or BUOW sign.	Tanaka and Cooley
3-18-2009	6:35 A.M. - 9:00 A.M.	0/2	46°-58°	Clear (0%)-Clear (0%)	No BUOW or BUOW sign	Cooley and Robb
3-25-2009	6:40 A.M. - 9:00 A.M.	0/2	48°-52°	Clear (0%)-Clear (0%)	No BUOW or BUOW sign.	Tanaka and Cooley
3-31-2009	6:45 A.M. - 8:45 A.M.	0/2	47°-60°	Clear (0%)-Clear (0%)	No BUOW or BUOW sign.	Tanaka and Dickson

Source: PCR Services Corporation, 2009.

RESULTS

Phase I - Habitat Assessment and Phase II - Burrow Survey

Results of the Phase I, Habitat Assessment concluded that the study area and buffer zone exhibited suitable BUOW habitat consisting of disturbed, low-growing vegetation; bare ground; debris piles; and a few small fossorial mammal burrows (refer to Figure 5, *Site Photographs*, attached). The study area has been previously disturbed by discing. The Phase II, Burrow Survey did not identify BUOW burrows or BUOW sign within the study area or within the 150-foot buffer zone and no BUOW were observed.

Phase III – Burrowing Owl Surveys, Census and Mapping

No BUOW were observed during the Phase III focused surveys. Ruderal vegetation had grown within some of the previously disturbed areas; however, the study area was still dominated by low-growing vegetation at the time of the survey. A complete list of all wildlife species observed

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within the study area during Phase III surveys is included in Appendix A, *Wildlife Compendium*, attached.

Should you have any questions concerning the methodology or findings in this report, please contact Maile Tanaka at (949) 753-7001 or m.tanaka@pcrnet.com.

Sincerely,
PCR SERVICES CORPORATION

A handwritten signature in black ink that reads "Maile Tanaka". The signature is written in a cursive, flowing style.

Maile Tanaka
Biologist

A handwritten signature in black ink that reads "Ezekiel Cooley". The signature is written in a cursive, flowing style.

Ezekiel Cooley
Associate Biologist

**APPENDIX A
WILDLIFE COMPENDIUM**

BIRDS

SCIENTIFIC NAME	COMMON NAME
Anatidae	Waterfowl
<i>Anas clypeata</i>	northern shoveler
<i>Anas crecca</i>	green-winged teal
<i>Anas cyanoptera</i>	cinnamon teal
<i>Anas platyrhynchos</i>	mallard
<i>Branta canadensis</i>	Canada goose
<i>Mergus merganser</i>	common merganser
Ardeidae	Hérons
<i>Ardea alba</i>	great egret
<i>Ardea herodias</i>	great blue heron
<i>Egretta thula</i>	snowy egret
Pelicanidae	Pelicans
<i>Pelecanus erythrorhynchos</i>	white pelican
Phalacrocoracidae	Cormorants
<i>Phalacrocorax auritus</i>	double-crested cormorant
Podicipedidae	Grebes
<i>Aechmophorus occidentalis</i>	western grebe
Rallidae	Rails and Gallinules
<i>Fulica americana</i>	American coot
Recurvirostridae	Stilts and Avocets
<i>Himantopus mexicanus</i>	black-necked stilt
<i>Recurvirostra americana</i>	American avocet
Scolopacidae	Sandpipers
<i>Tringa flavipes</i>	lesser yellowlegs
Accipitridae	Hawks
<i>Buteo jamaicensis</i>	red-tailed hawk
Charadriidae	Plovers
<i>Charadrius vociferus</i>	killdeer
Columbidae	Pigeons and Doves
* <i>Columba livia</i>	rock dove
<i>Zenaida macroura</i>	mourning dove
Trochilidae	Hummingbirds
<i>Calypte anna</i>	Anna's hummingbird

BIRDS

SCIENTIFIC NAME	COMMON NAME
Tyrannidae	Tyrant Flycatchers
<i>Sayornis nigricans</i>	black phoebe
<i>Tyrannus verticalis</i>	western kingbird
<i>Tyrannus vociferans</i>	Cassin's kingbird
Corvidae	Jays and Crows
<i>Corvus brachyrhynchos</i>	American crow
<i>Corvus corax</i>	common raven
Hirundinidae	Swallows
<i>Petrochelidon pyrrhonota</i>	cliff swallow
Mimidae	Thrashers
<i>Mimus polyglottos</i>	northern mockingbird
Sturnidae	Starlings
?* <i>Sturnus vulgaris</i>	European starling
Parulidae	Wood Warblers
<i>Dendroica coronata</i>	yellow-rumped warbler
<i>Geothlypis trichas</i>	common yellowthroat
Emberizidae	Emberizids
<i>Melospiza melodia</i>	song sparrow
<i>Pipilo crissalis</i>	California towhee
<i>Zonotrichia leucophrys</i>	white-crowned sparrow
Passeridae	Old World Sparros
<i>Passer domesticus</i>	house sparrow
Icteridae	Blackbirds
<i>Agelaius phoeniceus</i>	red-winged blackbird
<i>Euphagus cyanocephalus</i>	Brewer's blackbird
<i>Sturnella neglecta</i>	western meadowlark
Fringillidae	Finches
<i>Carpodacus mexicanus</i>	house finch
<i>Carduelis psaltria</i>	lesser goldfinch

MAMMALS

SCIENTIFIC NAME

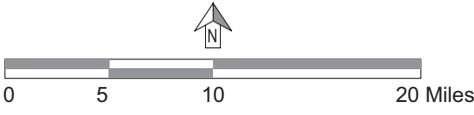
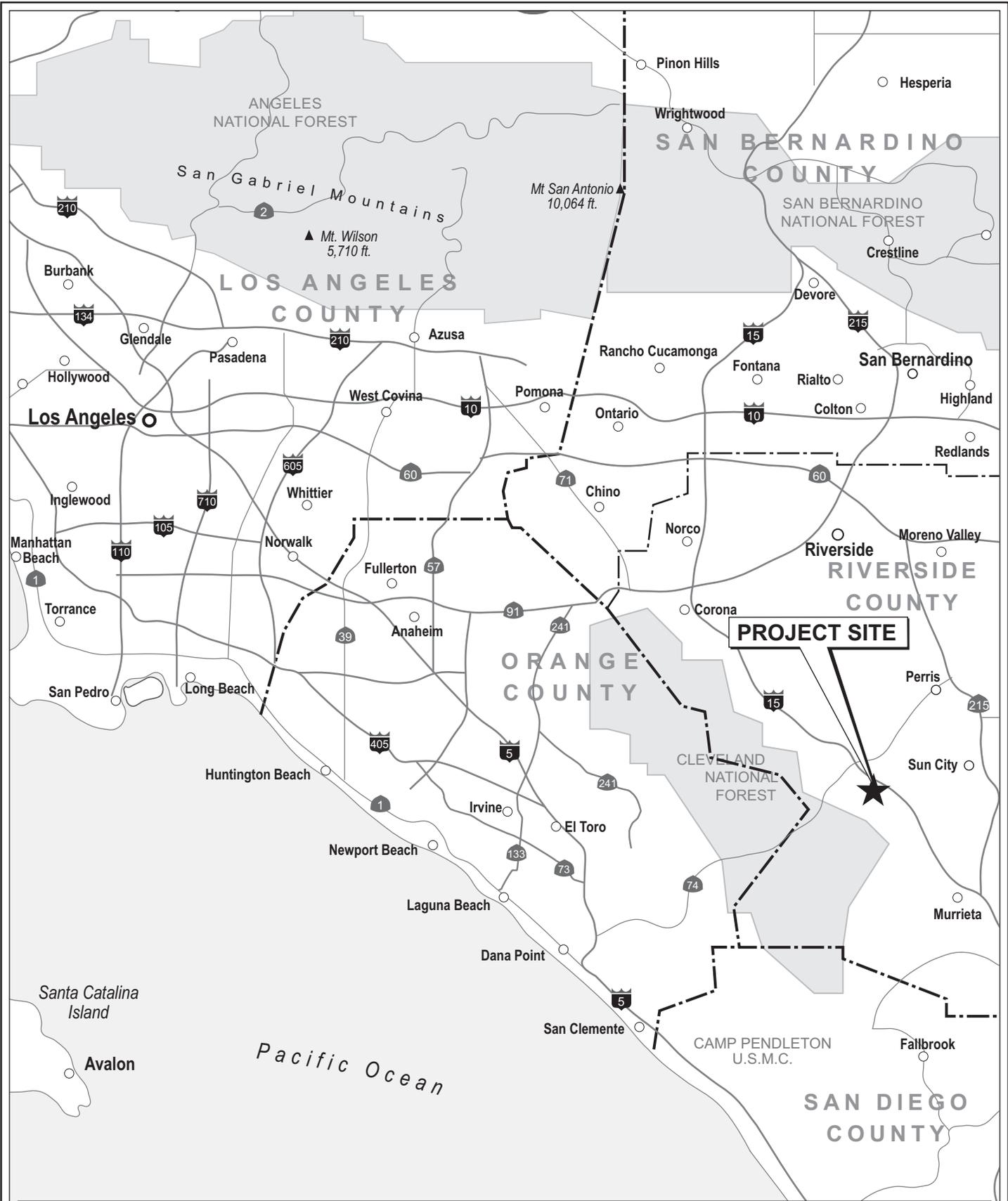
COMMON NAME

Leporidae

Sylvilagus audubonii

Hares and Rabbits

desert cottontail



Source: PCR Services Corporation, 2009.

Figure 1
The Diamond Specific Plan
Regional Map

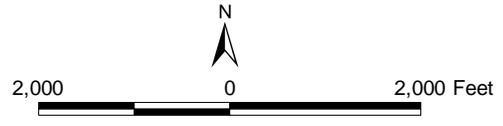
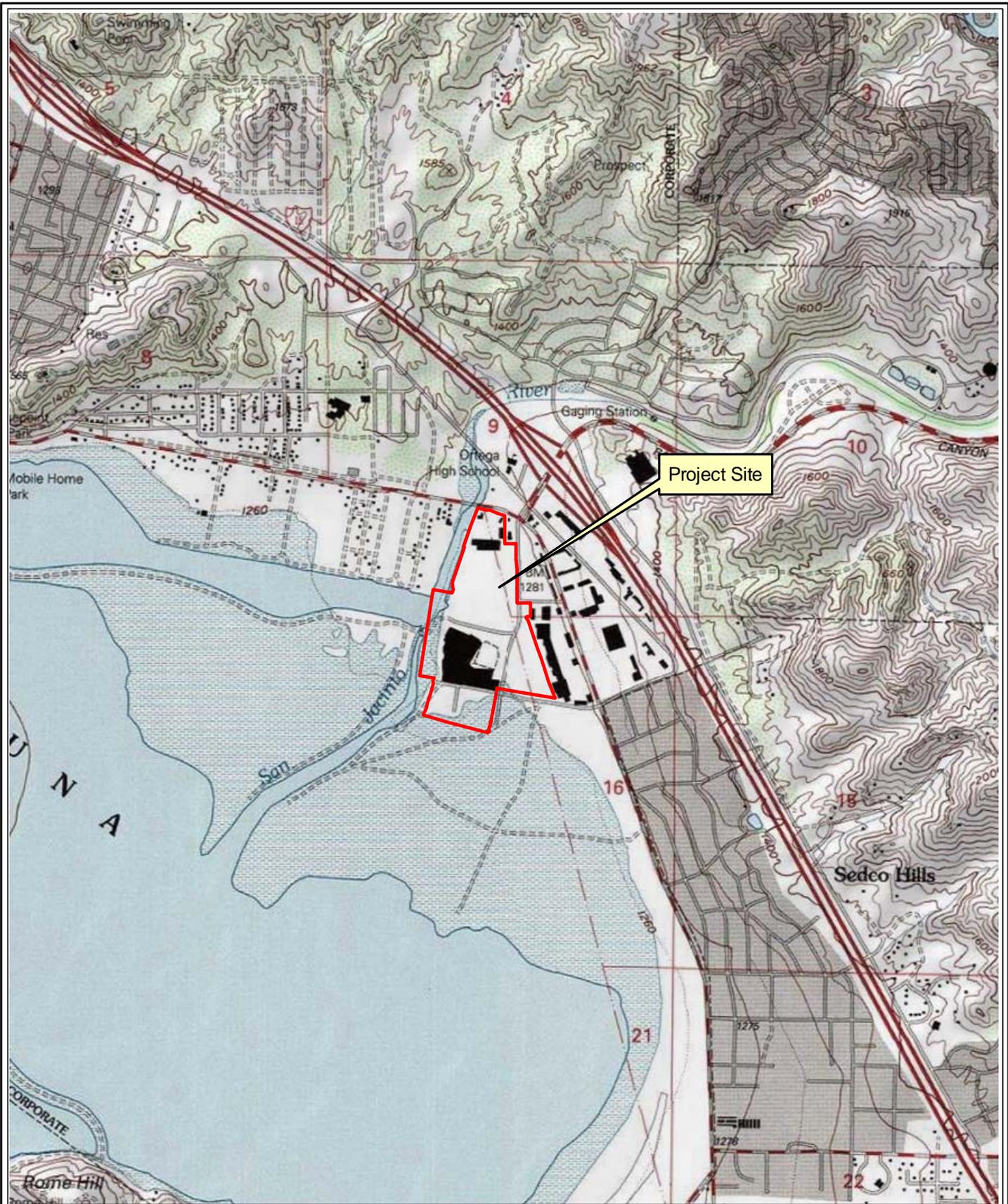
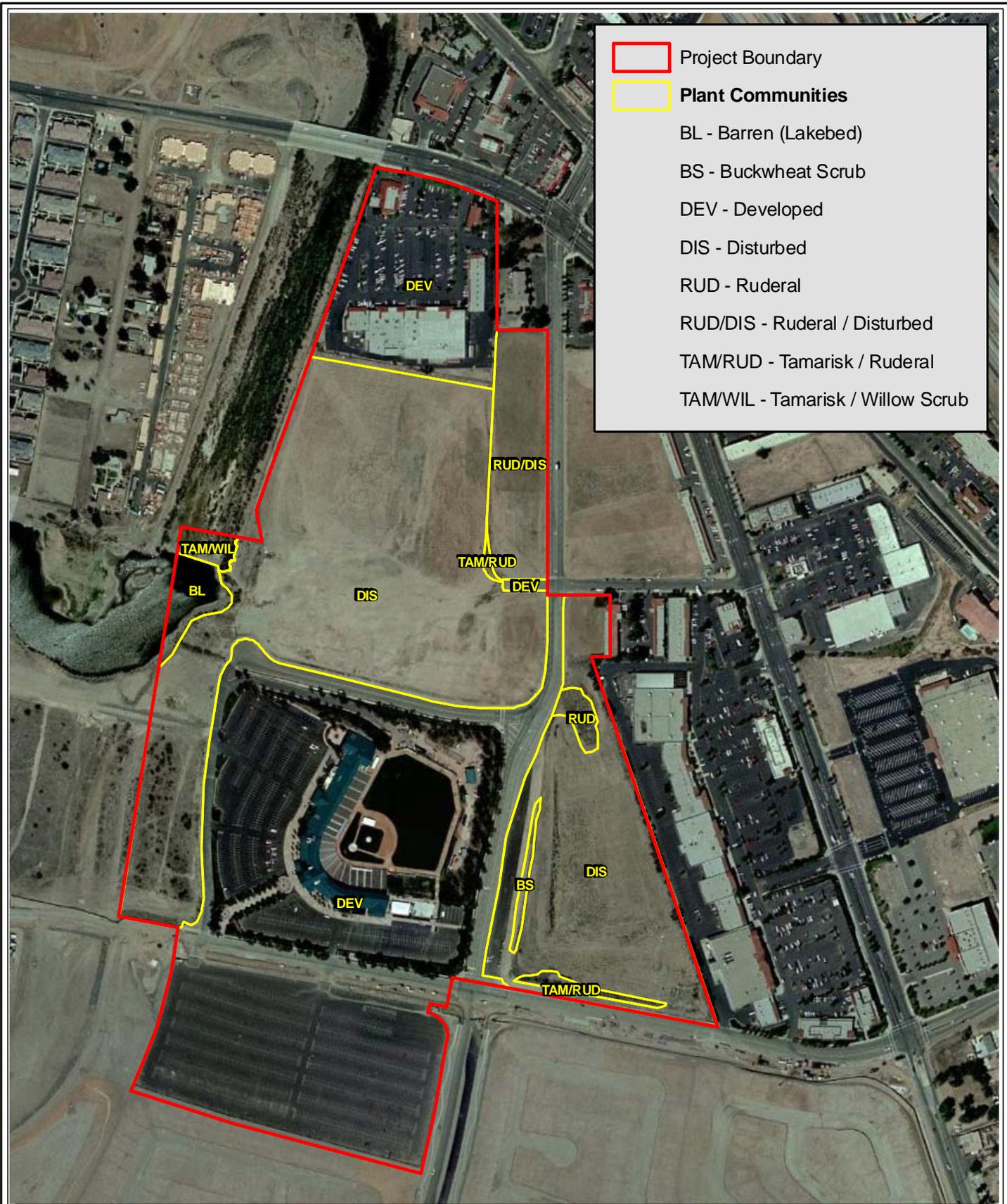


Figure 2
**The Diamond Specific Plan
 Vicinity Map**

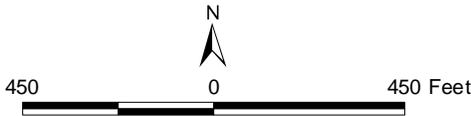
Source: USGS Topographic Series (Lake Elsinore, CA); PCR Services Corporation, 2009.



Project Boundary

Plant Communities

- BL - Barren (Lakebed)
- BS - Buckwheat Scrub
- DEV - Developed
- DIS - Disturbed
- RUD - Ruderal
- RUD/DIS - Ruderal / Disturbed
- TAM/RUD - Tamarisk / Ruderal
- TAM/WIL - Tamarisk / Willow Scrub

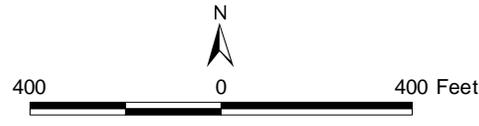


Source: Aerial Express, 2008; PCR Services Corporation, 2009.

Figure 3
The Diamond Specific Plan
Vegetation Communities



- Project Boundary
- Burrowing Owl Transects
- MSHCP Burrowing Owl Survey Area



Source: Aerial Express, 2008; PCR Services Corporation, 2009.

Figure 4
 The Diamond Specific Plan
 Transect Map and Location within the
 MSHCP Burrowing Owl Survey Area



Photograph 1: Southern view in the western portion of the study area.



Photograph 2: Western view from the center of the study area.