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July 18, 2011 6759-4.7

U.S. Fish and Wildlife Service Attention: Recovery Permit Coordinator 6010 Hidden Valley Road Carlsbad, California 92011

Subject: 2011 Focused Quino Checkerspot Butterfly Survey for the Jewell Valley Wind Project, San Diego County, California

Dear Recovery Permit Coordinator:

This letter report documents the Spring 2011 results of a focused survey conducted by Dudek for the federally-listed endangered Quino checkerspot butterfly (*Euphydryas editha quino*; QCB) for the Jewell Valley Wind Project, a proposed wind energy development project in the southeastern portion of the County of San Diego, California.

PROJECT LOCATION AND EXISTING CONDITIONS

The proposed Jewell Valley Wind Project site is approximately 6,660 acres in southeastern San Diego County, approximately 60 miles east of the City of San Diego near the town of Boulevard, CA (Figure 1). The project site includes two components consisting of the Northern Ranch located to the north of Interstate 8 (I-8) and the Southern Ranch located to the south of I-8. The site lies between two major drainage divides: the Tecate Divide to the west, and the In-Ko-Pah Mountains to the east. This area occurs within the Live Oak Springs U.S. Geographic Survey (USGS) topographic quadrangle (Figure 2).

The terrain in the area ranges from valley bottoms to house-sized boulder-covered ridgelines. The elevation ranges across the study area from approximately 3,280 feet above mean sea level (AMSL) to approximately 4,120 feet AMSL.

Soils on site include acid igneous rock land, Calpine coarse sandy loam, Kitchen Creek loamy coarse sand, La Posta loamy coarse sand, La Posta rocky loamy coarse sand, Las Flores loamy fine sand, Loamy alluvial land, Mottsville loamy coarse sand, Riverwash, and Rositas loamy coarse sand.

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VEGETATION COMMUNITIES

Nine plant communities and land cover types were mapped within the focused QCB survey area, including: red shank chaparral, semi-desert chaparral, granitic northern mixed chaparral, valley and foothill grassland, field/pasture, open coast live oak woodland, dense coast live oak woodland, upper sonoran subshrub scrub, and freshwater marsh. The acreages of each community type within the project site are shown in Table 1. Descriptions of each vegetation community (with Holland numeric codes) are provided following Table 1. Holland (1986) and Oberbauer (1996) were used to describe vegetation communities on site.

Table 1
Vegetation Communities within the Focused Quino Checkerspot Butterfly Survey Area for the Jewell Valley Wind Project

Vegetation Community	Acreage On Site
Red shank chaparral	427.1
Semi-desert chaparral	264.1
Granitic northern mixed chaparral	263.8
Valley and Foothill Grassland	22.2
Field/pasture	13.8
Open coast live oak woodland	5.8
Upper Sonoran subshrub scrub	3.2
Freshwater marsh	2.6
Dense coast live oak woodland	0.2
Total	1002.8

Red Shank Chaparral (37300)

Red shank chaparral is made up of nearly pure stands of red shank (*Adenostoma sparsifolium*) (Holland 1986). This community is similar to chamise chaparral but is typically taller and somewhat more open (Holland 1986). In the study area, red shank chaparral intergrades with chamise chaparral and scrub oak chaparral. Like chamise chaparral, the understory in red shank chaparral is sparse and composed of flat-topped buckwheat, annual forbs, and brome grasses.

Semi-Desert Chaparral (37400)

Semi-desert chaparral is relatively open, with widely spaced shrubs and openings supporting annuals. This community is similar to mixed chaparral but occurs in areas with hotter, drier summers and colder winters. In the study area, this community is characterized by abundant rock outcrops. Semi-desert chaparral intergrades with flat-topped buckwheat and the other chaparral



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communities. Perennial species common to this community include flat-topped buckwheat, silver cholla (*Cylindropuntia echinocarpus*), Mojave yucca, and Mormon-tea (*Ephedra californica*). Scattered occasionally throughout this community are other common chaparral shrubs, including sugarbush, mountain mahogany, and scrub oak. Annual species observed in the openings of this community include goldfields, red-stemmed filaree, golden yarrow (*Eriophyllum confertiflorum*) thread-leafed eriastrum (*Eriastrum filifolium*), chia, desert beauty, Lemmon's linanthus, San Diego gilia, popcorn flower, and red brome.

Granitic Northern Mixed Chaparral (37131)

Granitic northern mixed chaparral is similar to northern mixed chaparral (37130), but with granitic soils. This community consists of broad-leaved sclerophyll shrubs, 2–4 m tall, forming dense, often nearly impenetrable vegetation dominated by Nuttall's scrub oak (*Quercus dumosa*), chamise (*Adenostoma fasciculatum*), and any one of several taxa in *Arctostaphylos* and *Ceanothus*. Plants in this community are typically deep-rooted, with usually little or no understory vegetation, and often considerable accumulation of leaf litter. Granitic northern mixed chaparral is well adapted to repeated fires, to which many species respond by stump sprouting. A dense cover of annual herbs may appear during the first growing season after a fire, followed in subsequent years by perennial herbs, short-lived shrubs and re-establishment of dominance by the original shrub species in this community.

Valley and Foothill Grassland (42000)

Valley and foothill grassland is a native community dominated by large tussocks of perennial native needlegrass (Nasella spp.). The habitat is open and typically supports a variety of native and introduced grasses and forbs, often actually exceeding the bunchgrasses in cover. In San Diego County, native perennial herbs such as Sanicula, Sidalcea, Sisirynchium, Eschscholzia or Lasthenia are present. The percentage cover of native species at any one time may be quite low, but is considered native grassland if 20% aerial cover of native species is present. Other species commonly associated with valley and foothills grassland include wild oat (Avena fatua), common goldenstar (Bloomeria crocea), ripgut grass (Bromus diandrus), foxtail chess (Bromus madriatensis ssp. rubens), California poppy (Eschscholzia spp.), and goldfields (Lasthenia spp.).

Open and Dense Coast Live Oak Woodland (71161 and 71162, respectively)

Both open coast live oak woodland and dense coast live oak woodland are generally similar to the coast live oak woodland (71160). Open coast live oak woodland has a canopy with less than 50% cover, while dense coast live oak woodland has a canopy with between 50% and 75% cover. Coast



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live oak woodland is an evergreen woodland dominated by coast live oak (*Quercus agrifolia*). The shrub layer is poorly developed, but may include toyon (*Heteromeles arbutifolia*), currant or gooseberry (*Ribes* spp.), laurel sumac (*Malosma laurina*), or dominated by Mexican elderberry (*Sambucus Mexicana*). The herb component is continuous and dominated by ripgut grass and several other introduced taxa. Open coast live oak woodland typically occurs along drainages at desert margin on north-facing slopes or mixed with Engelmann oak (*Quercus engelmannii*). Dense coast live oak woodland mostly occurs at the narrowing of valley flood plains, or valleys with deep alluvium and high perennial groundwater, mostly in riparian habitats.

Field/Pasture (18310)

Field/pasture includes areas of low-intensity agriculture typically involving dry farming or livestock grazing. In the study area, a small area of field/pasture occurs along McCain Valley Road near Interstate 8, where livestock grazing occurs in a floodplain area. In general, this area is characterized by non-native grasses, including *Bromus* and *Hordeum* species, and non-native herbaceous species, including tumble mustard (*Sisymbrium altissimum*) and red-stemmed filaree (*Erodium cicutarium*).

Upper Sonoran Subshrub Scrub (39000)

Upper sonoran subshrub scrub is a low, fairly penetrable scrub of soft-wooded, summer-dormant, drought- tolerant shrubs. Dominance varies among sites, but usually includes interior goldenbush (*Ericameria linearifolia*), interior California buckwheat (*Eriogonum fasciculatum polifolium*), bladderpod (*Isomeris arborea arborea*), or desert tea (*Ephedra californica*), with many annuals derived from nearby grasslands filling the spaces between the shrubs. Upper sonoran subshrub scrub typically occurs in fairly well drained soils derived from sandstone, shale, or even sterile white diatomaceous deposits. In San Diego County this community occurs at high elevations.

Freshwater Marsh (52400)

Freshwater marsh is a wetland habitat type that develops where the water table is at or just above the ground surface, such as around the margins of lakes, ponds, slow-moving streams, ditches, and seepages. It typically is dominated by tall, emergent monocots, such as cattail (*Typha* sp.) and bulrush (*Scirpus* sp.). With elevations on the Jewell Valley study area ranging from 2932–3534 feet AMSL, the freshwater marsh on site could most accurately be described as transmontane freshwater marsh (52420), which occurs from 3500–7500 feet AMSL. Transmontane freshwater marsh differs from coastal and valley freshwater marsh (52410) in having a shorter growing season, confined more strictly to the summer and subject to much lower temperatures in winter, often well below freezing.



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Freshwater marsh is considered a wetland community and the marsh on site is under the jurisdiction of the CDFG, pursuant to Section 1601-1603 of the California Fish and Game Code, the ACOE, pursuant to Section 404 of the Clean Water Act, and the RWQCB, pursuant to Section 401 of the Clean Water Act. In addition, this wetland habitat is under the jurisdiction of the County of San Diego.

QUINO CHECKERSPOT BUTTERFLY SURVEY

Methods

The project developer is in the process of developing a site plan that will be based on meteorological data collected from MET facilities to be constructed onsite. Since a site plan was not available at the time Focused QCB surveys were completed, a survey program was developed by Dudek that included surveying specific areas located throughout the project site (Figures 3 and 4). The survey areas were developed by Dudek based on discussions with the project developer that identified potential areas onsite that would likely be most suitable for development and habitat onsite that would likely support QCB.

Focused QCB surveys were conducted over five visits within a 5-week period between March 9 and April 15, 2011. Surveys were conducted by QCB permitted biologists Anita M. Hayworth, Ph.D. (TE781084), Brock A. Ortega (TE813545-5), Jeff D. Priest (TE840619-2), Kam J. Muri (TE051250-0), Tricia Wotipka (TE840619-2), Paul M. Lemons (TE051248-2), Vipul R. Joshi (TE019949-0), Viviane Marquez (TE800930-9) and David Waller (TE025394-2) in accordance with current USFWS protocol (USFWS 2002a, 2002b).

The site was divided into 11 survey polygons, each representing a single day survey effort (i.e., in accordance with USFWS protocol) (Table 2). These survey areas were numbered and assigned to Dudek's permitted biologists. The biologists were provided with 200-scale (1 inch = 200 feet) aerial photographs of each survey polygon. These photographs were used for mapping host plant populations. Binoculars were used to aid in detecting and identifying butterfly and other wildlife species. GPS units also were available for recording locations of host plant populations.

Table 2
2011 Quino Checkerspot Butterfly (QCB) Survey Polygons

Survey Area	Acreage of Survey Area
1	96
2	95
3	93



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Table 2
2011 Quino Checkerspot Butterfly (QCB) Survey Polygons

Survey Area	Acreage of Survey Area
4	99
5	84
6	85
7	88
8	93
9	89
10	88
11	93

The survey methods consisted of slowly walking roughly parallel transects throughout all potential habitat within the survey area (i.e., all areas that are not excluded per the survey protocol, generally including sage scrub, open chaparral, grasslands, open or sparsely vegetated areas, hilltops, ridgelines, rocky outcrops, trails and dirt roads). Survey routes were arranged to thoroughly cover the survey area at a rate of no more than 10–15 acres per hour.

Surveys were conducted only during acceptable weather conditions (i.e., surveys were not conducted during fog, drizzle, or rain; sustained winds greater than 15 miles per hour measured 4–6 feet above ground level; temperature in the shade at ground level less than 60° Fahrenheit (F) on a clear, sunny day; or temperature in the shade at ground level less than 70°F on an overcast or cloudy day). Survey times, personnel, and conditions during the QCB survey are shown in Table 3. Photocopies of the surveyor's field notes are included as Appendix A.

Table 3
Schedule of Focused Quino Checkerspot Butterfly Surveys and Environmental Conditions

			Temperature Range	Percent Cloud Cover	Wind (miles per hour	
Survey Area	Date	Time	(°F)	(% cc)	(mph))	Personnel*
			Week	1		
1	3/11/11	0805-1400	64–81	0–0	3-5 to 6-10	AMH
2	3/9/11	0946-1530	60–60	0–0	0–10, gusts to 30	BAO
3	3/11/11	1000-1600	63–70	0–0	3-5 to 5-10, gusts to 15	BAO
4	3/11/11	0830-1505	61–80	0–20	3-6 to 4-8, gusts to 15	JDP
5	3/15/11	0850-1500	63–70	0–10	0-4 to 6-10, gusts 10-15	PML
6	3/15/11	1000-1600	68–72	5–15	2-3 to 2-5, gusts 8-15	VRJ
7	3/10/11	0910-1500	64–78	0–0	0-3 to 3-6, gusts 12-20	PML

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Table 3
Schedule of Focused Quino Checkerspot Butterfly Surveys and Environmental Conditions

				Range of Conditions		
Survey Area	Date	Time	Temperature Range (°F)	Percent Cloud Cover (% cc)	Wind (miles per hour (mph))	Personnel*
8 (north half)	3/11/11	0840-1400	60–69	0–5	0-5 to 4-10, gusts 10-15	PML
8 (south half)	3/11/11	0915-1530	68-86	0–0	4–7	TLW
9	3/10/11	0930-1530	64–67	0–0	0–1 to 0–5	VRJ
10	3/14/11	0915–1515	66-80	10–35	3-6 to 6-9	TLW
11	3/11/11	0945-1545	62-64	0–40	7–8 to 5–10	KJM
			Week	: 2		
1	3/18/11	0930-1530	62-65	20–0	5–10, gusts to 15	BAO
2	3/18/11	0945-1515	64-64	20-0	1-3 to 5-10, gusts 10-15	AMH
3	3/15/11	1000–1610	65–70	0–20	5–10, gusts to 15	BAO
4	3/18/11	0930–1600	60–73	60–5	0-3 to 8-12, gusts to 15	JDP
5	3/29/11	1100-1630	66–70	10–10	5–10 to 3–5	BAO
6	3/17/11	0845–1525	64–69	10–40	0-5 to 2-9, gusts 10-14	PML
7	3/17/11	0905–1515	61–72	0-0 hazy	2-3 to 5-8	TLW
8	3/23/11	0945–1600	64–62	0–0	0-2 to 4-6	TLW
9	3/28/11	1100–1700	64–66	0–0	3–8, gusts to 15	VRJ
10	3/18/11	0905–1505	70–68	0-0 hazy	4-6 to 6-9	TLW
11	3/18/11	1000–1600	60–60	50–0	4-8 to 6-10, gusts to 12	KJM
			Week	3		
1	3/29/11	0930–1615	64–72	0–80	3–5 to 5–8	AMH
2	3/23/11	1000–1630	60–64	0–15	2-4 to 8-12, gusts 15-25	JDP
2	4/1/11	1420-1720*	81–88	0–0	0–7	VM & DW
3	3/30/11	1015–1630	73–74	2–60	1-5 to 2-6, gusts to 8	JDP
4	4/5/11	1015–1700	67–72	40–80	3-7 to 2-8, gusts 10-14	PML
5	3/31/11	0920–1535	68–77	5–5	0-4 to 4-8, gusts 9-12	PML
6	3/30/11	0900–1500	64–74	10–20	0-4 to 4-8, gusts 9-15	PML
7	3/29/11	0900–1505	64–76	0–20	5–8 to 2–4, morning gusts to 12	TLW
8	4/1/11	0900-1515	74–86	0–0	2–3	TLW
9	3/30/11	1030-1350*	69–77	5–20	0–8	VM & DW
10	3/30/11	1350-1525*	75–76	25–35	0–8	VM & DW
10	4/1/11	1035-1305*	78–89	0–0	0–7	VM & DW
11	3/28/11	1015–1630	60-62	0–0	4-6 to 3-7	KJM
			Week	: 4		
1	4/1/11	0830-1550	64-64	0–0	3–5	AMH
2	4/13/11	1030-1305*	60–67	0–5	0-7, gusts 7-9	VM & DW
3	4/2/11	0915–1530	68–74	50-60	0–5 to 4–9, gusts to 15	JDP

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Table 3
Schedule of Focused Quino Checkerspot Butterfly Surveys and Environmental Conditions

				Range of Conditions		
Survey Area	Date	Time	Temperature Range (°F)	Percent Cloud Cover (% cc)	Wind (miles per hour (mph))	Personnel*
4	4/1/11	0930–1600	74–88	0–0	0-2 to 0-4	JDP
5	4/4/11	0920–1545	64–72	0–0	3-8 to 4-8, gusts 9-15	PML
6	4/11/11	1000-1600	62-65	50-0	2-6 to 1-4, gusts 5-8	PML
7	4/4/11	0930-1545	70–74	0–0	5–8, gusts to 16	TLW
8	4/5/11	1030–1630	70–70	40-60	4-7 to 4-12, gusts to 20	KJM
9	4/1/11	1000-1500	63–66	0–0	3–5, gusts to 10	BAO
10 north	4/10/11	1405-1545*	62-64	0–0	0-7, gusts 7-9.5	VM & DW
11	4/4/11	1030–1630	62–67	0–0	2-4 to 0-2, gusts 6-10	KJM
			Week	5		
1	4/12/11	1005–1605	64–68	0–0	4-8 to 5-10	AMH
1	4/15/11	1030-1400	67–69	0–0	5–9	AMH
2	4/15/11	1030–1630	66–69	0–0	5-7 to 4-7, gusts 10-12	KJM
3	4/14/11	1030–1640	61–64	0–0	3-7 to 2-5	KJM
4	4/11/11	0950-1415	62-65	50-0	3–5	AMH
5	4/12/11	0940–1600	60–65	0–0	2-4 to 2-6, gusts 7-10	PML
6	4/13/11	1040-1630	60-62	0–10	3-8 to 4-8, gusts 10-17	PML
7	4/12/11	1020–1625	62-64	0–0	2-6 to 4-7	KJM
8	4/13/11	1405–1630*	56-62	0–20	0-5, gusts 6-11	VM & DW
9	4/11/11	1015–1450*	60–67	15–70	0–7	VM & DW
10	4/14/11	1100–1700	63–65	0–0	3-5 to 2-10	BAO
11	4/10/11	1000-1405*	58–65	0–0	0-6 gusts 9-13	VM & DW

^{*} Survey areas were split up and surveyed simultaneously by Viviane Marquez and David Waller. Survey times shown should be doubled to determine time spent in each survey area.

AMH = Anita M. Hayworth, PhD (TE-781084-6)

BAO = Brock A. Ortega (TE-813545-5)

JDP = Jeffrey D. Priest (TE-840619-2)

KJM = Kam J. Muri (TE-051250-0)

PML = Paul M. Lemons (TE-051248-4)

TLW = Tricia L. Wotipka (TE-840619-2)

VRJ = Vipul R. Joshi (TE-019949-0)

VM = Viviane Marquez (TE-800930-9)

DW = David Waller (TE-025394-2)

RESULTS

No QCB were observed during the 2011 focused survey. Thirty-three (33) butterfly species were observed during the surveys. The weeks in which these butterflies were observed are shown in Table 4.



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Table 4
Butterflies Observed on Site

				Week		
Scientific Name	Common Name	1	2	3	4	5
H	<i>lesperiidae –</i> Skippers					
Erynnis funeralis	Funeral duskywing	Х	Χ	Χ	Χ	Χ
Erynnis propertius	Propertius duskywing	_	_	_	Χ	_
Erynnis sp.	Duskywing	Х	Χ	Χ	Χ	Χ
Thorybes pylades	Northern Cloudywing	Χ	_	_	_	
Nymphali	idae – Brush-footed Butterflies					
<i>Agraulis</i> sp.	Fritillary	_	_	Χ	_	
Coenonympha californica californica	California ringlet	Χ	Χ		Χ	_
Junonia coenia	Buckeye	_	_	_	Χ	Χ
Vanessa annabella	West coast lady	Χ	Χ	_	_	Χ
<i>Vanessa</i> cardui	Painted lady	Χ	Χ	Χ	Χ	Χ
Vanessa sp.	Lady	Χ	Χ	Χ	Χ	Χ
Lycaeni	idae – Blues and Hairstreaks					
Brephidium exile	Western pygmy blue	_	_	Χ	_	_
Callophrys perplexa	Perplexing (green) hairstreak	Χ	Χ	Χ	Χ	Χ
Glaucopsyche lygdamus australis	Southern blue	Χ	Χ	Χ	Χ	Χ
Icaria acmon acmon	Acmon blue	Χ	Χ	Χ	Χ	Χ
Incisalia augustinus	Brown elfin	Χ	Χ	Χ	_	_
Leptotes marina	Marine blue	Χ	_	_	_	_
Philotes sonorensis	Sonoran blue	_	_	Χ	_	
Paj	<i>pilionidae</i> – Swallowtails					
Papilio eurymedon	Pale swallowtail	Х	Χ	Χ	Χ	Χ
Papilio rutulus	Western swallowtail		Χ	_	Χ	
Papilo zelicaon lucas	Anise swallowtail	_	_	_	_	Χ
Pein	idae – Whites and Sulfurs					
Anthocharis centhura	Felder's orangetip	Χ	Χ	Χ	Χ	Χ
Anthocharis sara	Sara orangetip	Х	Χ	Χ	Χ	Χ
Colias eurydice	California dogface	Х	Χ	_	_	_
Colias harfordi	Harford's Sulfur	Χ	_	Χ	Χ	Χ
Colias sp.	Sulfur	Χ	Χ	Χ	_	Χ
Euchloe hyantis	Pearly marble	Х	_	Χ	_	
Euchloe lotta	Desert marble		_	Χ	Χ	Χ
Pieris rapae	European cabbage white		Χ	Χ	_	_
Pontia beckerii	Becker's white	Х	_	Χ	_	
Pontia protodice	Common white	Χ	Χ	Χ	Χ	Χ
Pontia sisymbrii	California white	Χ	Χ	Χ	_	_

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Table 4
Butterflies Observed on Site

			Week			
Scientific Name	Common Name	1	2	3	4	5
Riodii	<i>Riodinidae</i> – Metalmarks					
Apodemia virgulti	Behr's metalmark	Χ	Χ	Χ	Χ	Χ
Calephelis wrightii	Wright's metalmark	Χ	_	_	_	

One species of QCB larval host plant, common owl's-clover (*Castilleja exserta* ssp. *exserta*), was observed within the study area during focused surveys. Occurrences of the larval host plant are shown on Figure 4. Table 5 includes the known and observed adult QCB nectar plants (according to Mattoni et al. 1997, USFWS 2002a, USFWS 2002b, USFWS 2003). Larval host plants are also included in Table 5 and are in bold print.

Table 5

QCB Larval Food and Adult Nectar Plants¹

Scientific Name	Common Name	Observed During Focused Survey
	Apiaceae - Carrot Family	
Lomatium dasycarpum ssp. dasycarpum	woolly-fruit lomatium	_
Lomatium utriculatum	common lomatium	_
	Asteraceae – Sunflower Family	
Achillea millefolium	yarrow, milfoil	_
Lasthenia californica	common goldfields	X
Lasthenia coronaria	southern goldfields	_
Layia platyglossa	common tidy tips	X
	Boraginaceae - Borage Family	
Amsinckia menziesii	rancher's fireweed	_
Amsinckia menziesii var. intermedia	rancher's fiddleneck	X
Amsinckia menziesii var. menziesii	rigid fiddleneck	_
Cryptantha spp. or Plagyobothrys spp.	popcorn flower	X
	Fabaceae - Pea Family	
Lotus spp.	deerweed, spanishclover, lotus	X
	<i>Hydrophyllaceae</i> – Waterleaf Family	
Eriodictyon crassifolium var. crassifolium	thickleaf yerba santa	_
Eriodictyon trichocalyx var. trichocalyx	hairy yerba santa	_
Phacelia distans	wild-heliotrope	X
	Lamiaceae - Mint Family	
Salvia columbariae	chia	X
	<i>Plantaginaceae</i> – Plantain Family	
Plantago erecta ²	dot-seed plantain	_

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Table 5

QCB Larval Food and Adult Nectar Plants¹

Scientific Name	Common Name	Observed During Focused Survey
Plantago patagonica	woolly plantain	_
	<i>Polemoniaceae</i> - Phlox Family	
Gilia angelensis	grassland gilia	_
Gilia capitata ssp. abrotanifolia	ball gilia	_
Linanthus spp.	ground pink	_
F	<i>Polygonaceae</i> – Buckwheat Family	
Eriogonum fasciculatum var. foliolosum	California buckwheat	X
S	Scrophulariaceae - Figwort Family	
Antirrhinum coulterianum	Coulter's snapdragon	_
Castilleja exserta	common owl's-clover	X
<i>Collinsia</i> sp.	Chinese houses	_
Cordylanthus rigidus ssp. setiger	dark-tipped bird's-beak	_
Keckiella antirrhinoides var. antirrhinoides	yellow bush-penstemon	_
Keckiella cordifolia	climbing bush penstemon	_
	<i>Liliaceae</i> – Lily Family	
Allium haematochiton	red-skin onion	_
Allium peninsulare	red-flower onion	_
Allium praecox	early onion	_
Dichelostemma capitatum	blue dicks	X
Muilla clevelandii	San Diego goldenstar	_
Muilla maritima	common muilla	

¹ List derived from Mattoni et al. 1997; USFWS 2002a, USFWS 2002b; USFWS 2003 (for *Euphydras editha*)

Dudek certifies that the information in this survey report and attached exhibits fully and accurately represents the work conducted by the QCB permitted biologists who conducted this focused survey.

Please feel free to contact us at 760.942.5147, plemons@dudek.com, or bortega@dudek.com if you have any questions regarding the contents of this report.

Sincerely,

Paul M. Lemons
Permit #TE051248-4

Ram J. Muri Permit # TE051250-0 Brock A. Ortega
Permit #TE813545-5

Permit #TE840619-2

Anita M. Hayworth Permit #TE781084

Tricia L. Wotipka
Permit # TE840619-2

² Plants listed in bold print are known QCB larval host plant species.

Subject: 2011 Focused Quino Checkerspot Butterfly Survey for the Jewell Valley Wind Project,

San Diego County, California

Vipul R. Joshi

Permit # TE019949-0

David Waller

Permit #TE025394-2

Viviane Marquez

Permit #TE800930-9

Att: Figure 1, Regional Map

Figure 2, Vicinity Map

Figure 3, Biological Resources Map with Quino Survey Areas – North Figure 4, Biological Resources Map with Quino Survey Areas – South

Appendix A - List of Wildlife Species Observed during the 2011 Jewell Valley QCB Survey

Appendix B - 2011 Jewell Valley QCB Survey Field Notes

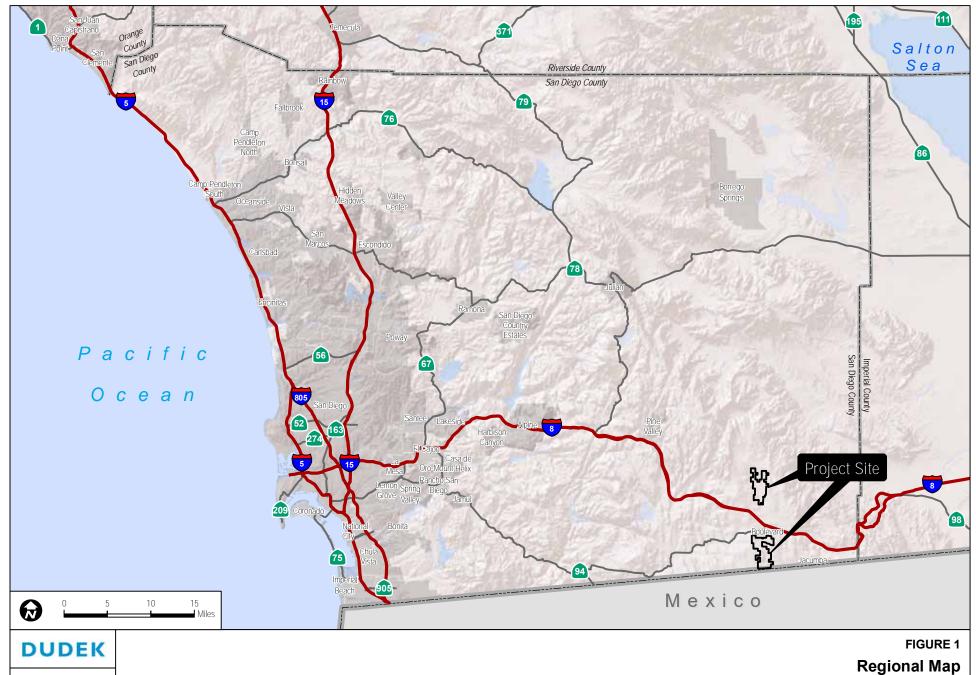
cc: Joan Heredia, Enel Green Power North America

David Hochart, Dudek

Subject: 2011 Focused Quino Checkerspot Butterfly Survey for the Jewell Valley Wind Project, San Diego County, California

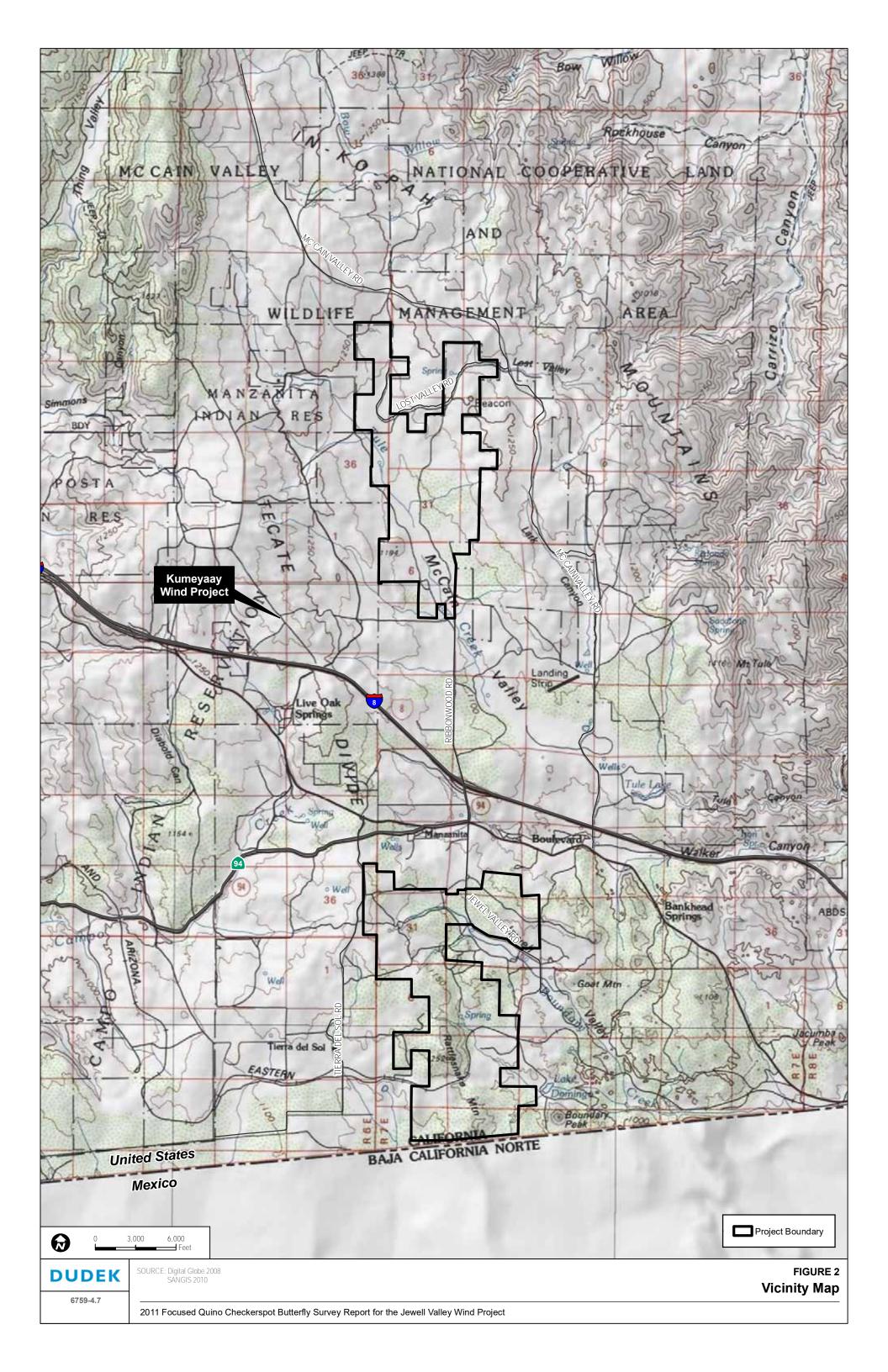
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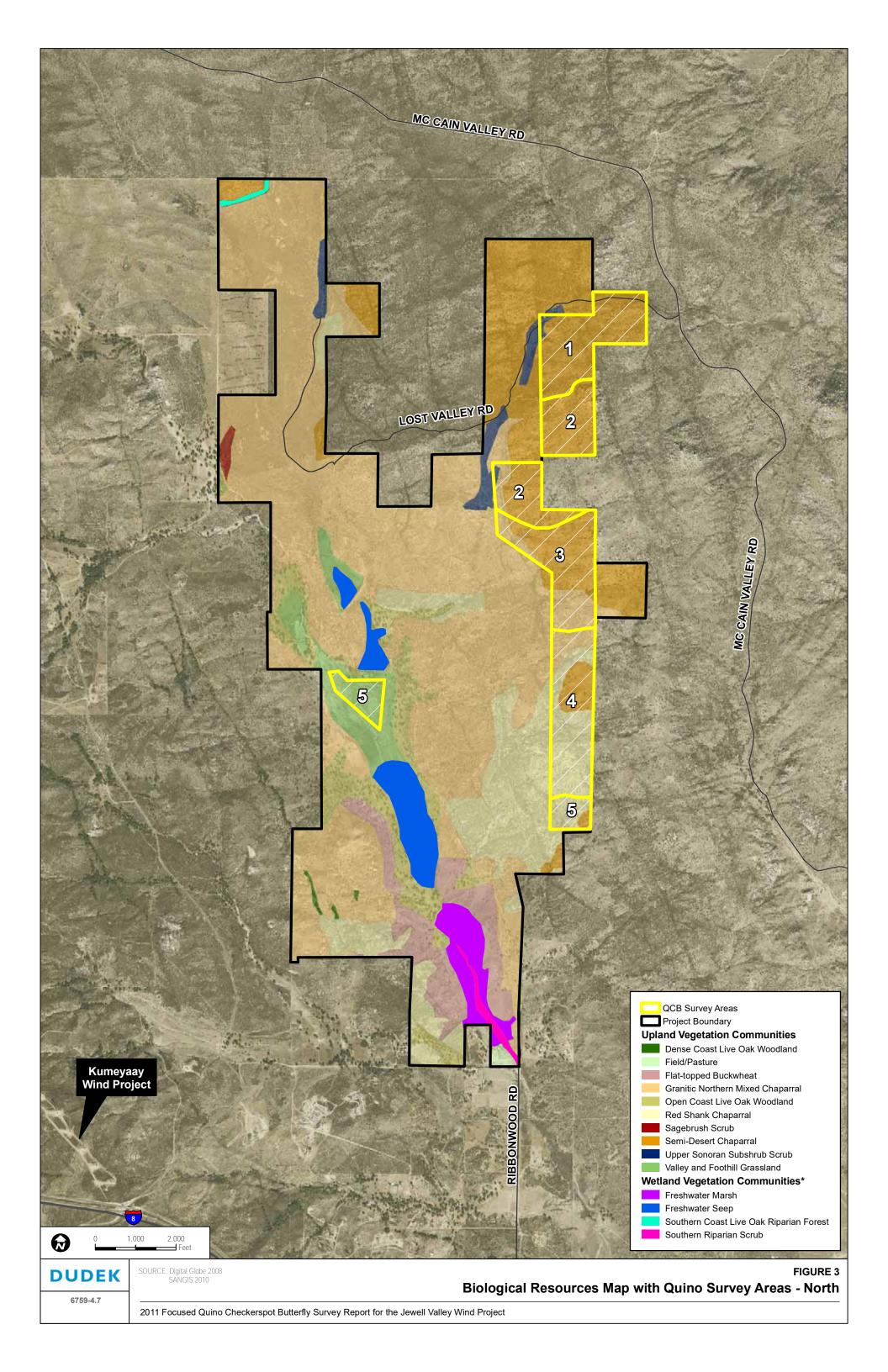
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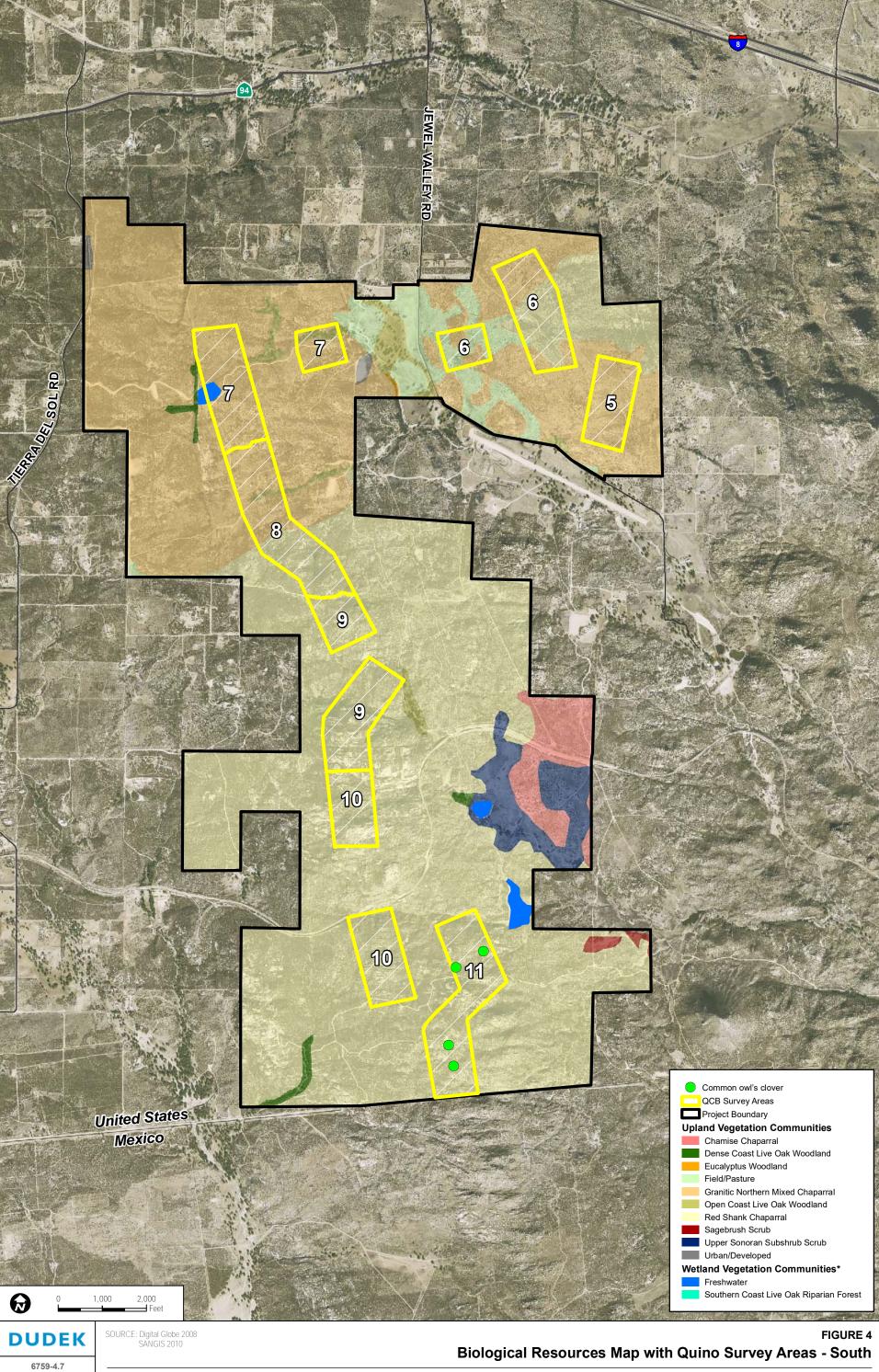


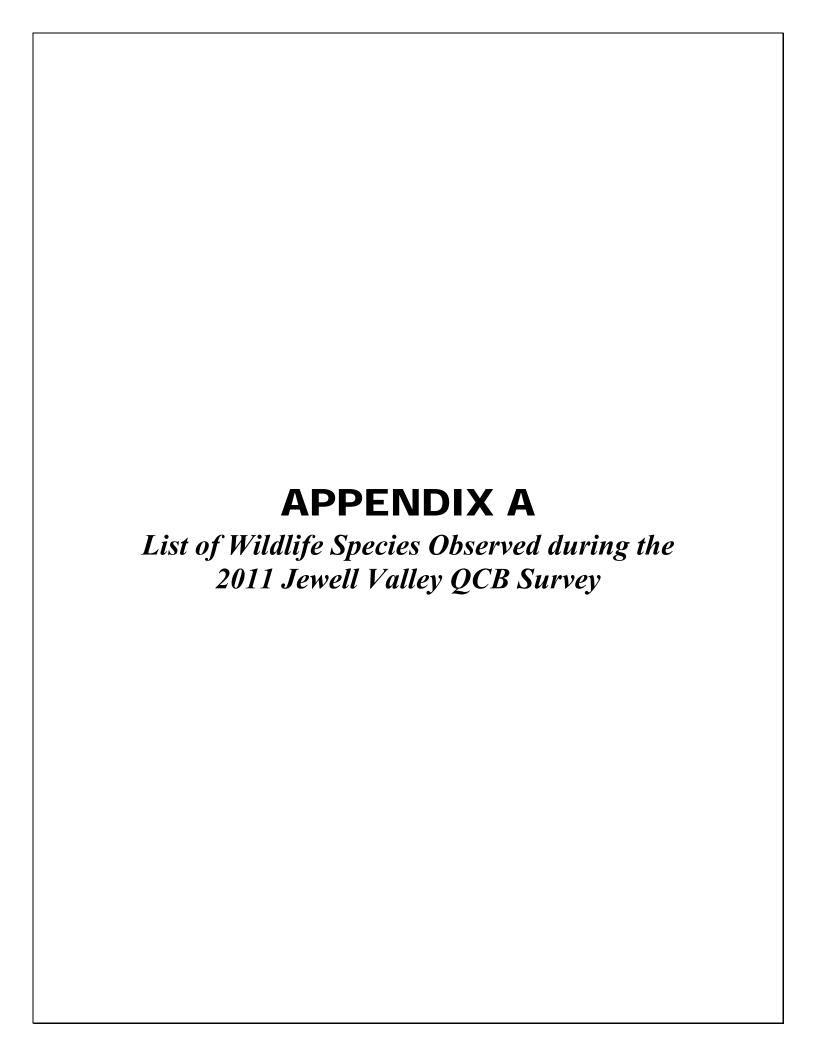
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2011 Focused Quino Checkerspot Butterfly Survey Report for the Jewell Valley Wind Project









APPENDIX A List of Wildlife Species Observed during the 2011 Jewell Valley QCB Survey

WILDLIFE SPECIES – VERTEBRATES

AMPHIBIANS

BUFONIDAE – TRUE TOADS

Bufo boreas - western toad

HYLIDAE – TREEFROGS

Hyla cadaverina – California treefrog Hyla regilla – Pacific treefrog

REPTILES

IGUANIDAE - IGUANID LIZARDS

Gambelia wislizenii – long-nosed leopard lizard Phrynosoma coronatum – coast horned lizard Sceloporus graciosus – sagebrush lizard Sceloporus occidentalis – western fence lizard Sceloporus orcutti – granite spiny lizard Uta stansburiana – side-blotched lizard

TEHDAE - WHIPTAIL LIZARDS

Cnemidophorus hyperythrus – orange-throated whiptail

COLUBRIDAE - COLUBRID SNAKES

Coluber constrictor – racer

Masticophis lateralis – California whipsnake

Pituophis melanoleucus – gopher snake

VIPERIDAE - VIPERS

Crotalus atrox – western diamondback rattlesnake
Crotalus ruber – red-diamond rattlesnake
Crotalus oreganus helleri – Southern pacific rattlesnake

BIRDS

ARDEIDAE – HERONS

Ardea alba – great egret

ANATIDAE - WATERFOWL

Anas platyrhynchos – mallard

CATHARTIDAE - NEW WORLD VULTURES

Cathartes aura – turkey vulture

ACCIPITRIDAE - HAWKS

Accipiter cooperii – Cooper's hawk Buteo jamaicensis – red-tailed hawk Parabuteo unicinctus – Harris's hawk

FALCONIDAE - FALCONS

Falco sparverius – American kestrel

PHASIANIDAE - PHEASANTS AND QUAILS

Callipepla californica - California quail

CHARADRIIDAE - PLOVERS

Charadrius vociferus – killdeer

COLUMBIDAE – PIGEONS AND DOVES

Zenaida macroura – mourning dove

CUCULIDAE - CUCKOOS AND ROADRUNNERS

Geococcyx californianus – greater roadrunner

STRIGIDAE - TRUE OWLS

Bubo virginianus – great horned owl

APODIDAE - SWIFTS

Aeronautes saxatalis – white-throated swift

TROCHILIDAE - HUMMINGBIRDS

Calypte anna – Anna's hummingbird

PICIDAE – WOODPECKERS

Colaptes auratus – northern flicker

Melanerpes formicivorus – acorn woodpecker

Picoides nuttallii – Nuttall's woodpecker

Picoides scalaris – ladder-backed woodpecker

TYRANNIDAE – TYRANT FLYCATCHERS

Sayornis nigricans – black phoebe Sayornis saya – Say's phoebe Tyrannus vociferans – Cassin's kingbird

Tyrannus verticalis – western kingbird

HIRUNDINIDAE – SWALLOWS

Petrochelidon pyrrhonota – cliff swallow

CORVIDAE - JAYS AND CROWS

Aphelocoma californica – western scrub-jay Corvus brachyrhynchos – American crow Corvus corax – common rayen

PARIDAE – TITMICE

Baeolophus inornatus – oak titmouse

AEGITHALIDAE – BUSHTITS

Psaltriparus minimus – bushtit

TROGLODYTIDAE - WRENS

Campylorhynchus brunneicapillus – cactus wren Salpinctes obsoletus – rock wren Thryomanes bewickii – Bewick's wren

SYLVIIDAE - GNATCATCHERS

Polioptila caerulea – blue-gray gnatcatcher

TURDIDAE - THRUSHES AND BABBLERS

Sialia mexicana – western bluebird

TIMALIIDAE – LAUGHINGTHRUSH AND WRENTIT

Chamaea fasciata – wrentit

MIMIDAE – THRASHERS

Mimus polyglottos – northern mockingbird *Toxostoma redivivum* – California thrasher

PTILOGONATIDAE - SILKY-FLYCATCHERS

Phainopepla nitens – phainopepla



LANIIDAE - SHRIKES

Lanius ludovicianus - loggerhead shrike

STURNIDAE – STARLINGS

* Sturnus vulgaris – European starling

PARULIDAE - WOOD WARBLERS

Dendroica coronata – yellow-rumped warbler Geothlypis trichas – common yellowthroat Oporonis tolmiei – MacGillivray's warbler Vermivora celata – orange-crowned warbler

Wilsonia pusilla – Wilson's warbler

EMBERIZIDAE – BUNTINGS AND SPARROWS

Amphispiza bilineata – black-throated sparrow
Chondestes grammacus – lark sparrow
Junco hyemalis – dark-eyed junco
Melospiza melodia – song sparrow
Pipilo crissalis – California towhee
Pipilo maculatus – spotted towhee
Spizella atrogularis – black-chinned sparrow
Zonotrichia leucophrys – white-crowned sparrow

ICTERIDAE - BLACKBIRDS AND ORIOLES

Agelaius phoeniceus – red-winged blackbird Icterus bullockii – Bullock's oriole Icterus parisorum – Scott's oriole Molothrus ater – brown-headed cowbird Quiscalus mexicanus – great-tailed grackle Sturnella neglecta – western meadowlark

FRINGILLIDAE - FINCHES

Carpodacus mexicanus – house finch Carduelis psaltria – lesser goldfinch



MAMMALS

LEPORIDAE - HARES AND RABBITS

Lepus californicus – black-tailed jackrabbit Sylvilagus bachmani – brush rabbit Sylvilagus audubonii – desert cottontail

SCIURIDAE – SQUIRRELS

Ammospermophilus leucurus – white-tailed antelope squirrel Spermophilus beecheyi – California ground squirrel

GEOMYIDAE - POCKET GOPHERS

Thomomys bottae – Botta's pocket gopher

HETEROMYIDAE - POCKET MICE AND KANGAROO RATS

Dipodomys sp. – kangaroo rat (sign)

MURIDAE - RATS AND MICE

Neotoma lepida – desert woodrat Peromyscys sp. – mouse

CANIDAE - WOLVES AND FOXES

* Canis familiaris – domestic dog Canis latrans – coyote

PROCYONIDAE – RACCOONS AND RELATIVES

Procyon lotor - common raccoon

MUSTELIDAE – WEASELS, SKUNKS, AND OTTERS

Mephitis mephitis – striped skunk Mustela frenata – long-tailed weasel

FELIDAE - CATS

Felis concolor - mountain lion

CERVIDAE - DEERS

Odocoileus hemionus - mule deer



WILDLIFE SPECIES – INVERTEBRATES

BUTTERFLIES AND MOTHS

HESPERIIDAE – SKIPPERS

Erynnis funeralis – funereal duskywing Erynnis propertius – propertius duskywing Erynnis sp. – Duskywing Thorybes pylades – Northern Cloudywing

PAPILIONIDAE - SWALLOWTAILS

Papilio eurymedon – pale swallowtail Papilio rutulus – western tiger swallowtail Papilo zelicaon lucas – anise swallowtail

PIERIDAE – WHITES AND SULFURS

Anthocharis centhura – Felder's orangetip
Anthocharis sara – Sara orangetip
Colias Eurydice – California dogface
Colias harfordi – Harford's Sulfur
Colias sp. – Sulfur

Euchloe hyantis – Pearly marble Euchloe lotta – Desert marble

Pieris rapae – European cabbage white

Pontia beckerii - Becker's white

Pontia protodice – Common white

Pontia sisymbrii - California white

RIODINIDAE - METALMARKS

Apodemia mormo virgulti – Behr's metalmark *Calephelis wrightii* – Wright's metalmark

LYCAENIDAE - BLUES, HAIRSTREAKS, AND COPPERS

Brephidium exile – western pygmy blue Callophrys dumetorum perplexa – perplexing (green) hairstreak

Glaucopsyche lygdamus australis – southern blue

Icaria acmon acmon – acmon blue

Incisalia augustinus – brown elfin

Leptotes marina – marine blue

Philotes sonorensis - sonoran blue



NYMPHALIDAE – BRUSH-FOOTED BUTTERFLIES

Agraulis sp. – fritillary

Coenonympha californica californica – California ringlet

Junonia coenia – buckeye

Vanessa annabella – west coast lady

Vanessa sp. – lady

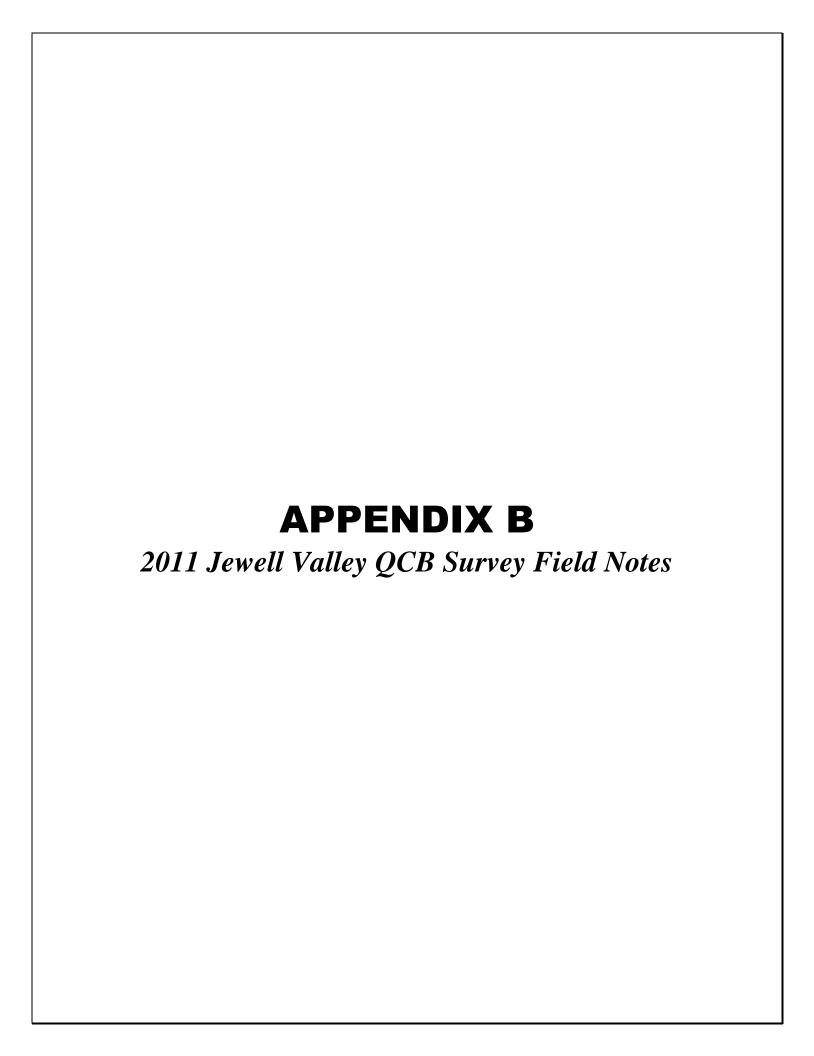
Vanessa cardui – painted lady

* signifies introduced (non-native) species



INTENTIONALLY LEFT BLANK





0805 1100 400 Jewel Valley 64 15 81 80B 3-5MPH 8MPH 6-10 Area Olean Clear Clean
- CAQU BUSH BOOR - CORA
RIHA-overhead WISW flyoner WRON
Funereal type HH Warmy Whiteblack (skipper)
- blue (marine) - Brown (misules) White (Becker's) +
Dehr's Metalmark AHLIN S. Blue III Acmon blue I underwing moth 1/2 ~15 Far for do
Ham sol and

10945 Jewel Valley	
64 grad 3/18/2011	full sun conditions by 1100
60 din Area 2	then wind picked up
high wisny (suns milent) QCB Survey	but butterflier were
1-3 mbit - CN1000	active.
	Nester Source (Lasth)
WSJA Cactreering	was abundant between
CAQU BTSP	sliveles (photos),
COLA CATI	
CEBO (indoird sp (la or we-	Stopped recording Britalwalk
100511 West	they are quite numerous
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SPPO Rost Connection	end
CATO DEJU deal	1515
CATH TYPE)	64F
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Blackspotted work +441	
Commonwhite Destroy Coast Lady 11	
pale swallow fail	
skipper allbrace IVI	
Finish Blue 11	•
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115 370 0
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CATO CATH
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YRWA BEWR
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BTSP WCSP
BTSP WCSP CAWR TUVE Flyover BTGW DEJE
BIGW DEJU
Striped racer
Som O.tip + + 1111
White-Becker or Common
on Elvin III
Behris M.M. HILL HHILL THE
Silv. blue 1) Mary
white - auge 1
Harras Gulhu
Skipper, largeblack HHI Desert marble HHI
Deput marble +141
Eady Sp. 1

Patches is carpet of annuals in bloom popeom, Lasth Alex patches of evodum. matches over is netty riago at N. end is redshank chamise ow wind

AMH 4/1/2011 Tewel Valley 76 F 0830 350 3-5mpH Clear Clear Harford HHIII Sara Otip +++ III black Skipper 11 - many metal work, Beh's HHII many Blue, Southern 111 111 Desert marble peoplexing 11+11 Pale Swallow tail very common- fitting around the bucket buckeye Blue (Acrown) ++++ WESP M000 WREN BTSP There over Hight subject to see pully low score with also pully low CATO SPTO WSJA. DEJU CAQU CORA CAWR small yellow (coryot the name)

Site

Johnson dos ved 182 gale AMH Alot more whites (common, marble, san o'tip) also more sulfurs this week. Metal marks are abundant botha small+large. first bunkeye this week. Carpet of spring ephemerals in bloom now. Did a second pass thru the areas with the carpets Jan 1 1 6 1 10 1 10

AMH ut. Site ASP · Spplist for GOB survey WREN BEWR BTSP WCSP NOFL CAWR CORA CATIL CATO GRIRO WTSW DUD حاته

HMA

1005 mile (05 4/12/2011 164 68 Jewel 4-8mph 5-10 Area 1 Clear Clear Week 5 QCB	good carpet for of Howers Lasth esp.
Harford's !! Alfalfa !! Metalmark, Behr's many West coast (ady Sarah O'tip !!!	Course riest
Sarah O'tip O'll Desert Marble 1(1) Southern blue 1 blk skipper + HJ-HH (+H) Buckeye 1 Common white !	
Perplexing III OATI BEENR COAA-Flyover CAPO Bush Sero	
CATH CAQU BTSP	
TUVIL-Flyoner	

AMH

1030 200 4 15 2011 5-9 mph 5-9 mph Area!
Clear Clear Tevel
69 and QCB
Sulfun, Hanford HH Marble 4/1 Buckeye 1/11 metal pearle HHHH many
Marble 11
metal hark HIHH many
A
Sara Oto, HHI IA Perplexival mall mothin orang undewins Black Scipper Small white Common. (1)
small wothin orange undewing
Black Skipper
Small white Common.
CAQU CAWR
CATH
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Jewel Valley OCB Arrea N 3/4/4 Kam Mun 09.45h: 62°F; 6%cc; 7-8 mgh 前ess面 1545h; 640F; 40%cc; 5-10 uph @W WREN GRED dogs (domstic/fied?) Eratium LEGO BEWR YRWA GOFA Lastheing WSCI SPTO CATO BUGH BUSH Cryptantha spp. Pravica con ap. CATH TOWN CISW DEJY ROWR autelope squirrel grante spiny liz combutiop? Phasdia cie? (bod) Amoincha Sara's orangetip 1 :: The state of Escholeia al Acmon blue : Lotus sp. (gellow) dustying pearly marke : No QCB detected. Most butterfly activity observed by 1000 and 1300h. Lists of Lastleina, pop cornel, no host plant app. observed.

Jewel Valley QCB 3/18/4 Kan Musi 1600h: 60° = ; partly donly 50% cc; 4-8 mphesw 1600h: 60 = ; 0% cc; \$6-10, 12 gusts esw DETU CATO grande spiny Lasthenia WREN WSCJ Agraquinel Epodium YEWA TUVU antelope squinel yellow fla Lotus sp. rocks BEWR SPTO Phacelia CORA 量Lypins popuorn A Savas orangety 12 Microsens? silvery blue rad maids funercal devoluting: Catillina officis 10 green hairstreak: Estilling and lady sp:: Behr's metalmark: Brown elfin: moth sp. (brown) pearly desert mayble fare about whi. acmon blue:

Jewel Valley OCB Area 11 3/28/u Law Muni 1015 h: 60°F; 070cc; 4-6 mph @ W 1630 h: 62° f. 07cc; 3-7 mph @ W YRWA WS CO ROWR grante spiny liz Leothina BUSH CATO WOSP char squine Erodium cie Lotus sp. Pts adjection BEWR UEGO HOF(SPTO WSCJ THUM Microsens? DEJU? Canothin verr COKA Es Cryptanthe silvery blue: Anenudia Acmouflypine blue :: Sarah's cranging :: tscholzia cal brown efin: Phacedia sp. annul green hairstreak [Dich cap Anise smallontail: Lipius sp. pearly marble :: miser's bettere moth - orange HW above w/ Calindinia Behr's mm: white/marke?

Jens Valley QCB Area 11 4/4/4 Kom Muni 1638h: 62°F; 07. cc; winds 2-4 mps, to 10 mph @ E. gusts 12-14 uph on will tops 16306: 67°F; 070 cc winds 0-2 mph, to 6 mph No OCB detected. CATH CORA TUVU ganilesping liz LastLevia HOFI CORA WREN sage liz * Captilleja exserta WSCJ SPTO BEWR othetytail pap com fl CATO ROWR CARU Pactice frog Legidium of. green hairstreak Dis Erodium cil pule swallowfail LL Lupino sp. Sasahis arangetip XX Amsinda Gunotho verr? Behrs weldmank 6: Acron blue: Phaedia Coundles fran? Puste marble/white to Low cy. yellow fls funered duoking 1: moth sp. Salvia col Sulphur sp.? (Hyby) Dic cap silvery blue

4/5/11 Jewel Valley QCB Area 8 Cam Mini 1030h: 70°F; 46%, cc, sunny; 4-7, 8+ uph west 1430 h: 72°F; 60% cc, overcost; 3-7 mph@SE Castheria WSC3 COLASCOL SPTO CAGIST ROWR LEGO CATO CAOU grantespliz Exolium Amsindia SWEEN RTHA OATT popuon flower NUWO CORA white aster? Ceanothy very? Fre smallowing ? : Comother Des ? silvery blue Lupius = P. anned, funered dulcywing Phacelia spy. L Savalic ovoughip MI Escholina sp. Behris metalurark MMM MM : blue sp. ; whitefoundle? A: properties dustying Acmon blue : moth sp. No OCB detected. Survey green harrstreak I ended early die to cool lady sp. (Hyby):" temps 4 to Fand overcost sulphur sp. :: skies per protocol. checkerch white 1:

KIM 1545 Bh: 72°F; sunny, 60 2cc; 3-8 mph & W 1630 h: 70° + ; sunny, 60° loce; 4-12 mph @ W goods to 20 mph Sum came back out - resumed survey. Winds up to 12 mph, grasts to 20 mph at 1630h at exposed locations / hilltops. Continued survey at lower areas.

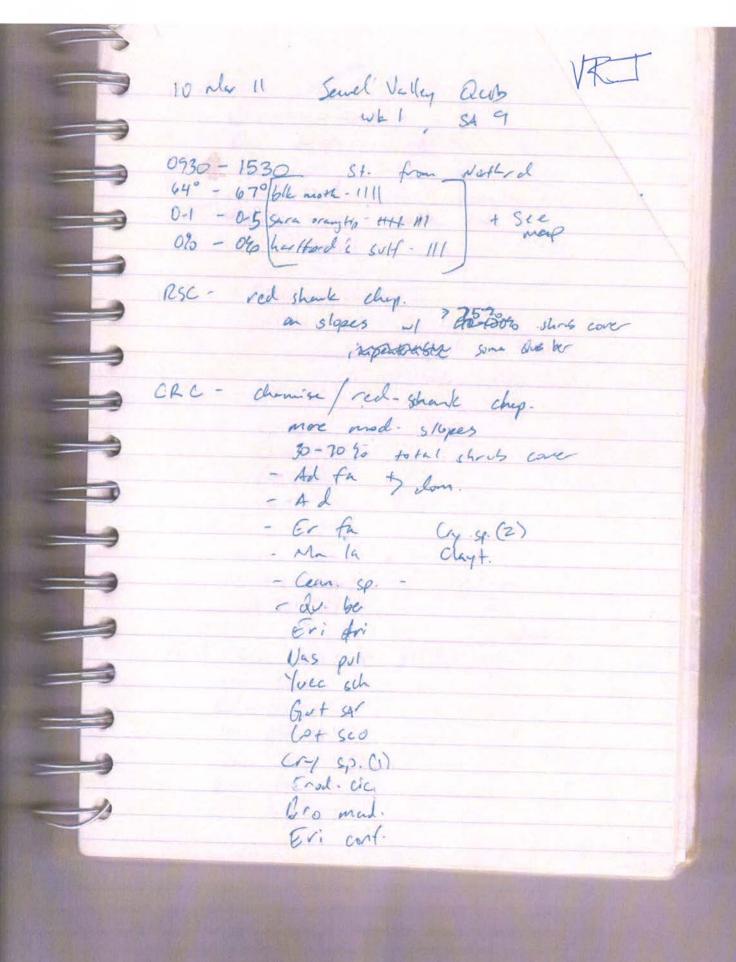
4/12/4 Jewel Valley OCB Area 7 Kam Muni 1020h: 62°F; 0°70cc; 2-6mph@ 1625 h: 64° f; 670cc; 4-7 mphe sw Lasthenia LEGO OATI brush vallet popeont WREN BUSP WELT CARN Escholaia RUSBL COFA SPTO UCSP Evolium BENK RTHA BUSH COHA Ammulia Lotro sp. (yellowis) M-BTJR warbler of. snake - black, yellow strike (side) Lipino op. Acuren blue blue sq. : green heir streak X: No QUB detected. Belys motolmark & 1: Soralis oranglip 1: lady sp.: painled tally. silvery blue buckeye

Jawel Valley OCB Area 3 4/14/4 Kain Mini 1030 h: 61°F, 07. cc; 3-7 mph @ NE 1640h: 640F; 07.cc; 2-5 mph @ Lasthanis WSCI CARRY grande sprayliz wren Lipinus (aun) WESP CATE CATH MAWA Nuwo push brush robbit * CAWR popurn f Erodium WIWA DM culdopegy CORA TWU KSP BEWR 98TO Sal col SCOR MODO blackfaildUR Comissina op. (aan Latus spl. (aun) Mal laus auda Behrs meblemank DAN AD: Clan very? white/setter comments;

Astericas of toward many lighter fil stroke on under Astericas of the cally white - triophyllum.

Ilmar, att life many whate ray, yellow dise noth op. : Acomon blue lady sp. white/maste: duskywing, husreal: Encameria Saraha orangetip: green hair Potneak: No Qub or list plant detected

Jewel Valley QCB 4/15/4 Area 2 Kam Meni ousts 10-12 mph 1030h: 66°F; 07.cc; 57 mph @ NE 1630h: 69° F; 070cc; 4-7 mph € NE WSCJ CLOSER BTSP BEWR SPTO Laotheria andope sq bush was wish Tury popcom A CA-ground Sq CAOCU CATH NUWD Erodiem PATIA MIST M-BTOR LEGO MODO Eriaming Physovata Phacelia blue sp. Lupimo sp. Acmon blue Lotro sp. (ann) Belis mitalmark & DA RADA Lotus sp. (gelow, rock) Anixe swallonfail Amsinchia moth sp. (orange): Sal col white About op .: . Chausyce green hairstreak : Camissaria Swalis orangetip: N. Reb (host plat deleded. buckeye : duskyning of .: sulphur ap ::



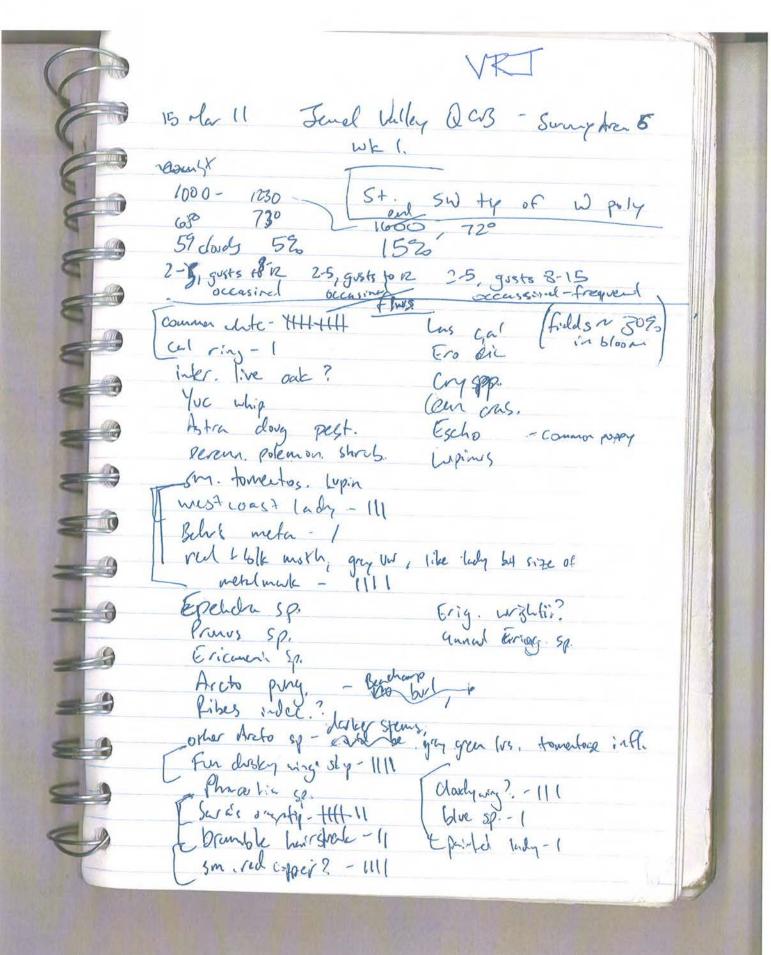
Bac - cyp shipsed los. in thes. Phu ovata? - somebodat : lictolia >>?

Phu tri Prens sp.

Cylind - light green a year thick

golden spines Erfa - sans 50% and chis's cover - Las cal - fields currently still mostly in Sod ~ 20% in Plu Graph. Sp. Clemati's Pen stem. anothe Back ? or Eric. Sanicla - Lomat. St - yel flw pricely poppy light green to no infl. total showb Most RGC hay or 50-75% cover Mul lau Ad fa Yuc golden shi Clan- sp. Ky 60

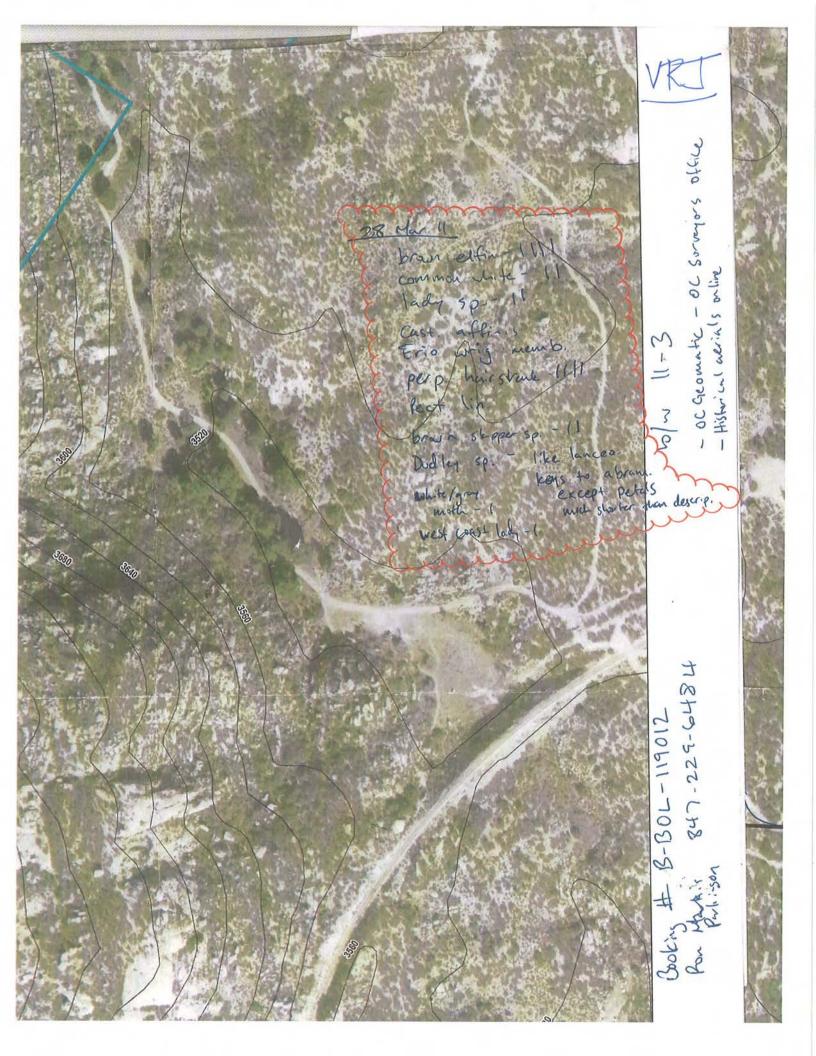
Botrich ? Conicera 3 - Scroph ? - under rocks Aco mac. 1.5. clumped along long strong Lot pokris. purs. scraph Plus for the peony cal. less cul Min nig triog sp -? old flor, in rocks



Twel Valley acs Olo 04 3-8 gusts to 15 on peaks 640 660

see map





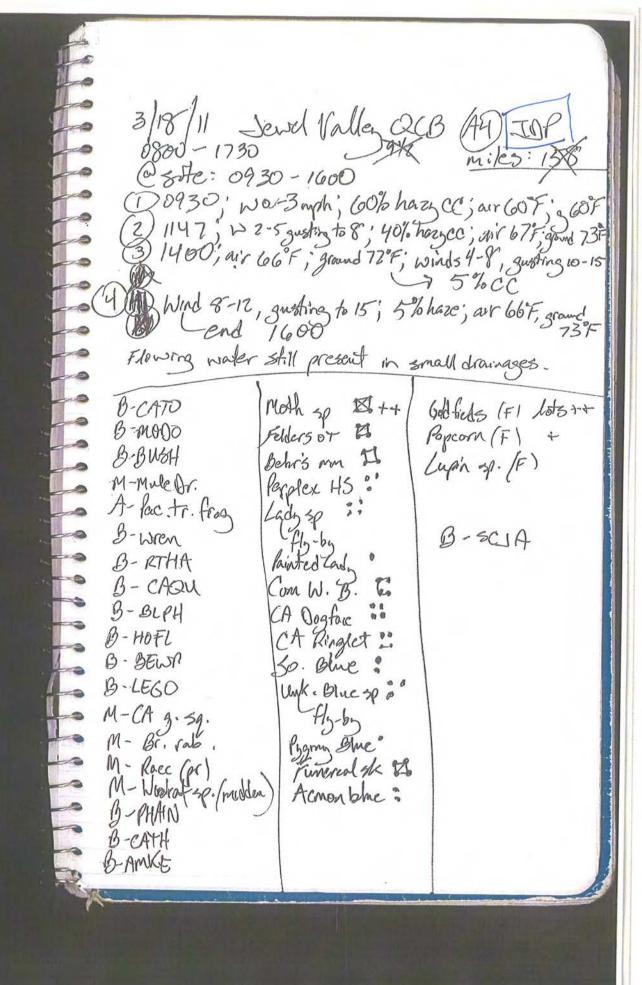
- " 14-

3/11/11 Jersel Valles QCB (Area 4) JDP 2514: 0830 - 1585 Wind 3-6 gusts to 8; 0%CC; ground 61°F; air 687 3 higest pt: Wind 2-8 gusts 10-15; 5%CC; ground 84°F; air 78°F 1136 (N. fac slope)

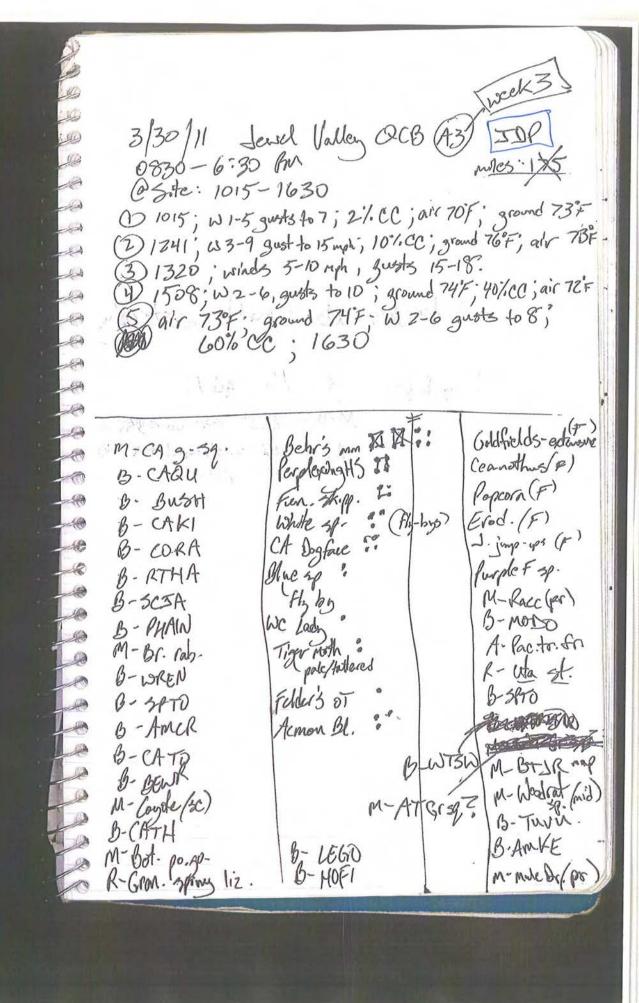
1306; W5-10, gusts 10-15; ground 80°F (micro-peak); air 74°F 6 1505; ground 80°F; air 75°F; W4-8, g to 15; 20°6CC

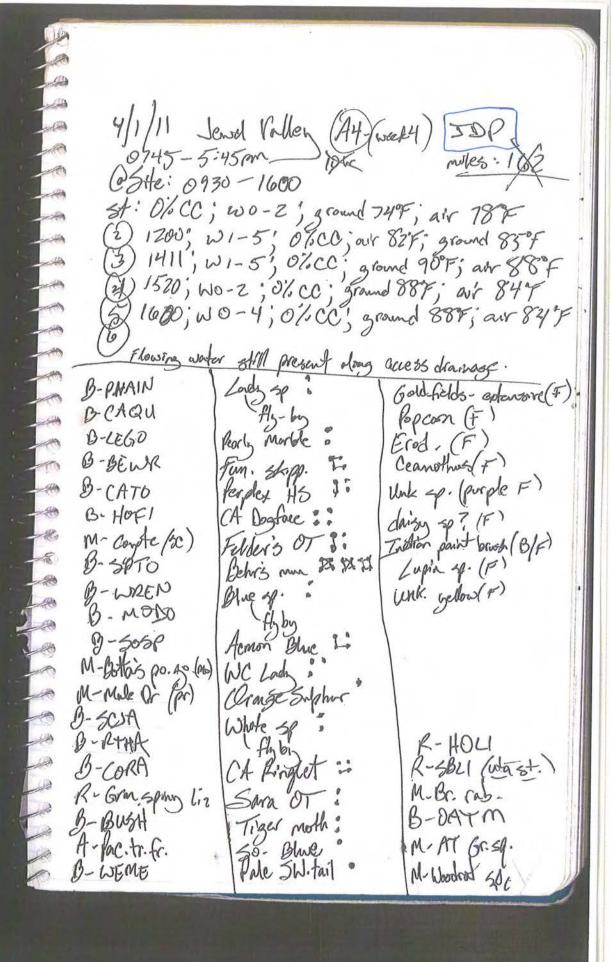
1-fac. tr. frog. Funered sk Di. Mule Dr (pi) B-CATH Sora OT A BTUVU Confe (50) 50, blue R. Gron. spiny liz.
M. K-rat (syn (pr/bu) Rollson (pr) Orange Sulph. B-BEWR Felders oT B-CATO Blue, sp M-Woodratsp- (mid) 3-WREN B-50TO Ladysp B-moso Periotex. HS : B-CORA Dehris mm Li M-po,go. (mo) B-RTHA Amphib egg masses photos; CA to for calling nearby around gravite outcrops B-CAQU Lashenia + B-4E60

Cashenia F Popcorn F Lupin F



3/23/11 Lewel Valley QCB (AZ) JDP 0830-6:30PM mles: 178 @ 5.te:1000-1630 (1000; 0%CC; WZ-4, gusts to 8; 60 F. avr; ground 60 F (3) 130; graved 67'F; W 1-5 gust to8; 2%cc; air 63°F
(3) 1348; W 4-8 gust 10-15; 5/occ; air 62°F; grand 65 (4) 1450; w 4-10 gusts 15.18; 15% CC; growd 66F (5) 1630; w8-12 gusts 15-25; 15/2CC; ground 64F Behr's mm DIST" B-CATO Goldfilds (F) B-CAQU Perplex HS II Erodrum (F) B-SCJA Acmon Bl. Lupin sp. (F) B- HOFI Com. W. Popcom (F) B- LE60 Jo. Bluc Johnny Jump up? (F) B- WREN Moth 50 ++++ B- CATH greigh- black A Goldfields. wil tream spots extensive in B-CORA all over spin open habitat B-MODO red burry M- Br ralo. Ceanothus p (F) R-WFLizerd AR-red-diam. rattlesnake Blue sp M-CA 9-39. B-RTHA WC Ladn of up over suppellation G-BLPH A Dogtas M- chipmunk or small B-BEWR Felders OT B- WCSP lady sp: an RTHA - perching a top of met former M. Mule Dr (pr) CH5-65 R- Granite going liz. 3- gust Fun skip. & O-PHAIN A-Pac. tr. frog M- Po. 30 (Ballas) (mgs) M-BTJR M- Couple B-Ture



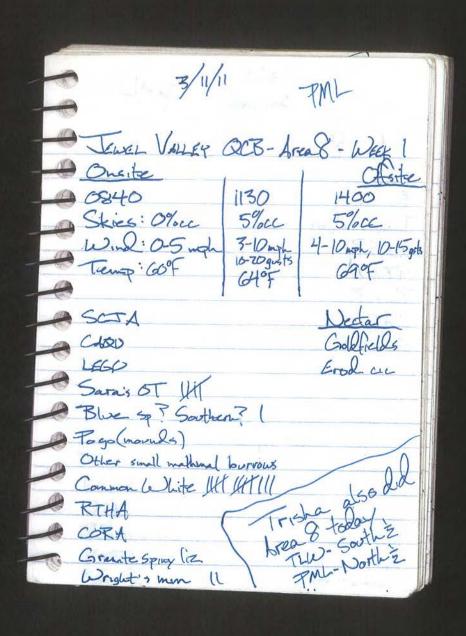


4/2/11 Jewel Volley QCB (43) (week4) JOP 0915; ground 68; air 68°F; 50%, CC; WO-5 1115; ground 72°F; 60%, CC; WO-2; air 73°F gusts 5-8 1215; ground 78°F; air 70°F; W3-7; 70%, CC 1320; 60%, CC; ground 79°F; W3-8. gusts 10-15; pair 73°F 1530; ground 74°F; W4-9 gusts to 15; air 70°F

Behr's mm A Mit (Goldfields extensive A-Pac. tr. fr. B - CATO CA Dogface: Papern (F) B-MODO Perplex. HS A. Alcmon Blue M- Mule Oc (pr) Crad. (F B- Gran. sping liz. Fun. Skipp Davin 7-(F) Blue 4 Yellow Fidelereck [F] M-Botta po. yo. (ma) B-3010 furgle Unk (F) B- LEGO B- HOF1 B-AMKE B-CORA B-BHCO B- WEKI

JEWEL VALLY OCB - AREA 7- WEEK! Onsite 1500 1140 0910 0% 0/000 Skies: 0%cc 0-5, 6-12gusts 75°F 3-6, acc. } 20 mph gest } 78°F Wind: 0-3 mph Temp: 640F Common write It UK/1 Soras OT HIT CATO Popearu Jones CORA Rancher 3 CAQU F. Dleweck Fence liz BUSH Pago (morals) WREN (over)

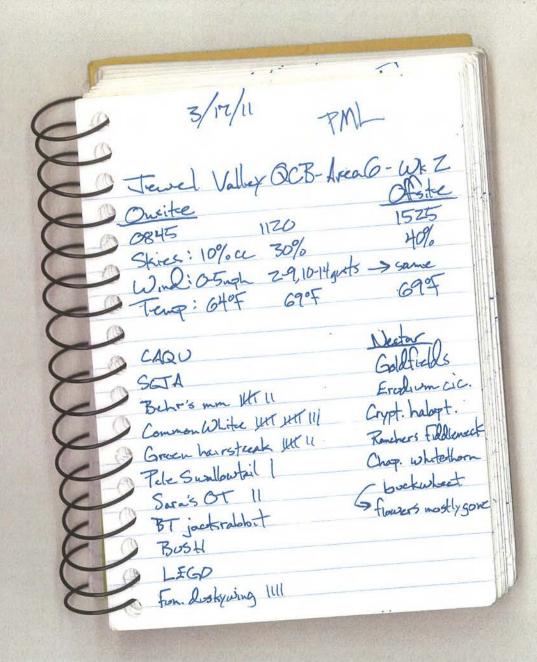
3/10/11 Continued Deer (Pr)
SAPH
Blue Sp? 1
Asman Blue III (photos)

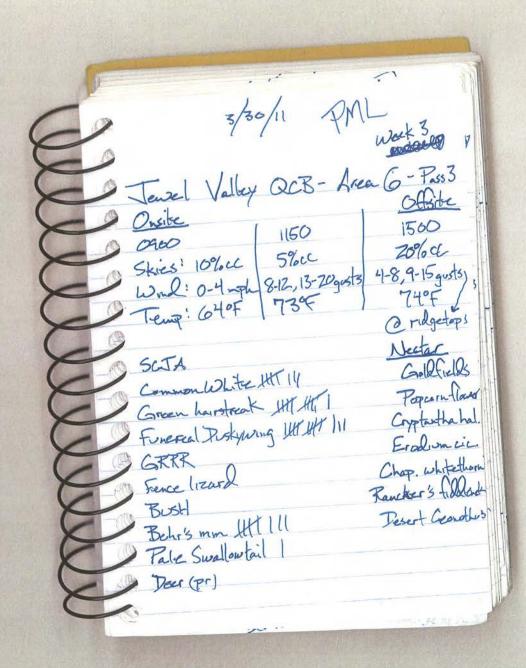


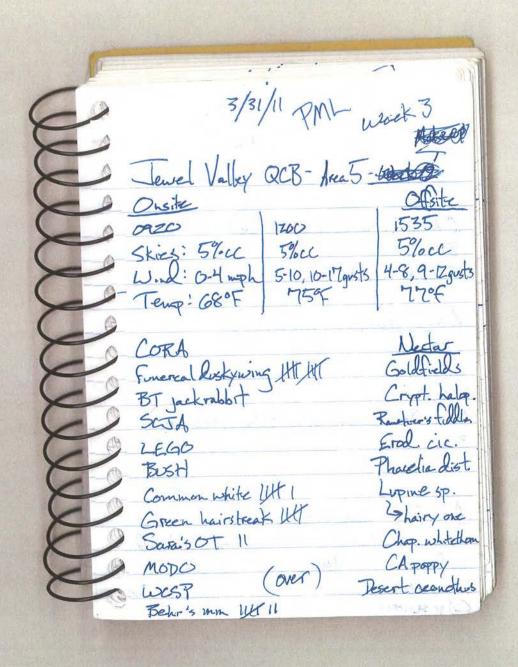
Area 8 Braddit
Partracting
WCSP
YRWA
BEWR
OATI
OCWA

1130 1500 Skies: Oloce Oloce 16%cc 2: 0-4 mgh 5-10 mgh 6-10, 10-15qui benop: 63°F 69°F 1.70°F LEGO SPTO SIL Br rabbit/Cottonta Sara's OT HIT HIT HIT II.
Perplex (Grn) Hairstreak HIT II
WCSP CA POTOY fille Dono Phaveliadit Behrs mm 1111 Lotus argo. MODO Cryptantha holort. BEWK

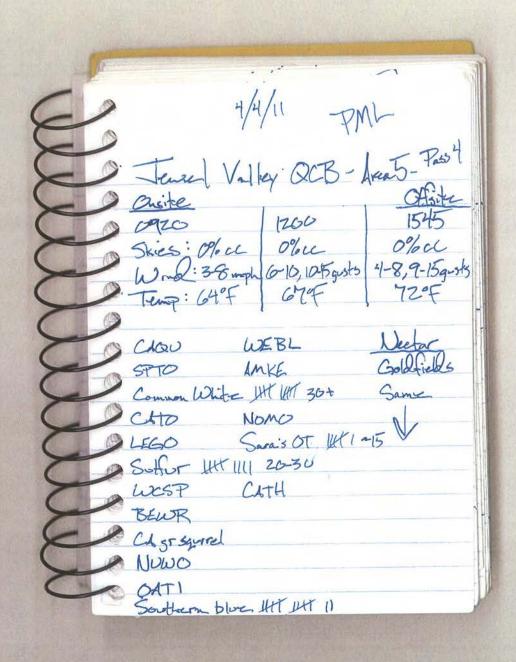
CATH CORA Po go (mands) Finduskyuring WT 1111 RTHA CAQU Southern blue IIII Grante Spiny 12. Common White Jet Jet 1 ROWR BTSP (Black-throated Sparrow) CAWR- cactus when CATO BT pack rabbit

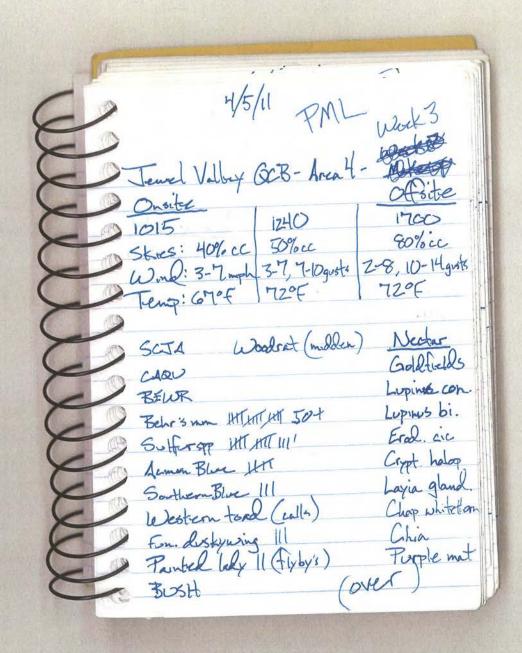




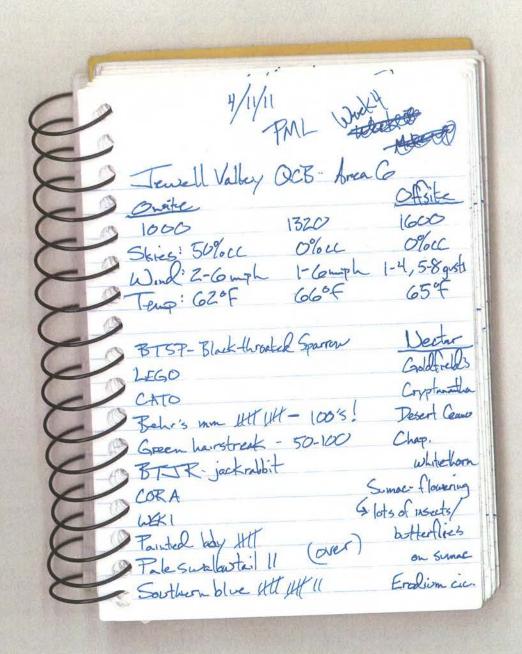


3/31/11 continued W. fenere (road CAWR (same area as before) BEWR Red dismondback Area 5 North (Below Area 4) OATI SPTO GHOW pr + nest w/nestlings (see map) BUSH Acmon bloc 11 Some goldfields BUSH Erodium AMKE Suffer Att 11 Papearn Flower Common White Htt CAGI SUITEL

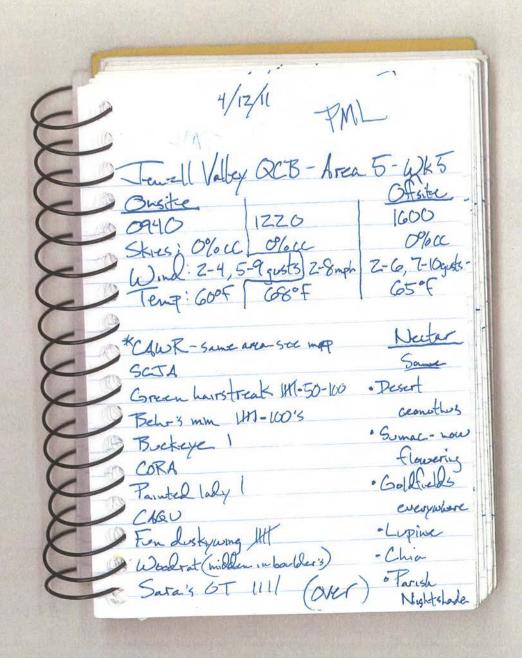




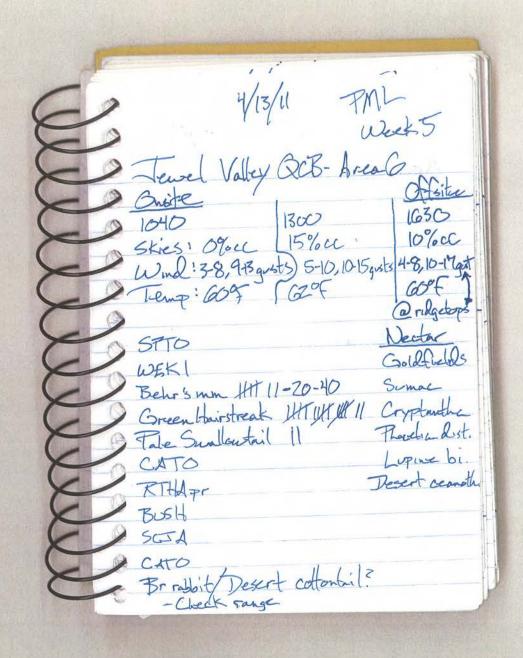
Area 2 (Continued) CORD RTHA TUVU deer (35) Desert ceanothes Exicameria lin. WAHA 25 Harris's Hank!



WII/II Continued Area Co SCJA Nomo Nomo Forereal diskywing 30-50 MALL Fr (Flyby)



Nector Lotus argo Encameria lin. Calycoseris parry.
Phacelia parry.
Phacelia dist. Lupinus bicolor Penstemon cent.



Area Co
WESP
CATH
WEME
BTSP
ANHU
Sarais OT III
B Painted lady II

TLW West 1- South 1/2
West 1- South 1/2
1/2 of site outh 1/2 Area 8 Jewel Vailey QOB 9: 0915 1530 clear sties clear sties winds 4-7mph winds air temp: 69°F air temp: 78% ground temp: 68°F ground temp: 860= Sara's Grangetip LEGO. SCJA verplexing hairstreak pointed lady Behrs metalmark CA white blue sp. CA ninglet mood CATO CORA LEGO

(745.500) TLW Week! 3/14/4 Area 10 Jewel Valley E: 1515 S: 0915 35% CC iot-cc winds 3-6, gysts to 7mph winds 6-9 mph air temp 660= air temp 769F graund temp 900F ground temp 660F SWA modo SPTO CORA Sara's orangetip (nectaring on ero cic) CATO Pale swallowtail Behris metalmark CA white brown elfin California dogface CATH RTHA

TLW Week Z Area 7 Jewell Valley QCB Surveys 3/17/11 S: 0905 E 35 hazy / partial clear stics haze winds 2-3mph (gists to 5) winds 5-8mph air temp 600F airtemp: 68°F ground temp GIF ground temp: 72°F CAQU Lostheria, endum, + KILL cryptantha are all in CORPA bloom. SPTO perplexing hourstreak temp increased at Behr's metal mark 11:45 am to 68°F Gara's ovangetip air temp, 70°F ground. bakhtmouse WREN SUTA brush rabbit acmon blue CA white BUSH funereal duskywing ground squired enote (Bulock's?) (confirmed BUOR) by yellow, blackhead, white Wing bars In shank

(730 TLW Week 2 Area 10 Jewel Valley GCB Survey 3/18/11 S: 6905 E: 305 hazy clear sties winds 4-6 mph winds 6-9 mph air temp: 68°F air temp: 640= ground temp: 70°F ground temp: 68°F acmon blue perplexing hairstreak blue sp. Behr's metal mark CA dogface HOFI BEWR mopo CAQU

(830) TLW Week 2 3/23/11 Area 8 Tewel Valley QLB 5: 0945 E: 1400 clear skies clear skies winds < 2mph Winds 4-6mph ground temp: 104°F ground temp: 62°F air temp: 600F air temp: 60°F Calobage white Behr's metalmark Sarás oran get p DATI SPTO painted lady acmon due penplexing hairstreak CA dogface funereal dystywing

(730-) TLW Week 3 Area 7 Jewel Valley 3/29/11 5: 0900 E: 1505 clearskies 201.cc winds 58mph gusts to 12 air temp: 66°F Winds 2-4mph air temp: 76°F ground temp: 1,4°F (soils were moist) ground temp. 768 marbled white (confirm?) Pearly marble (confirmed) Sarás orangetip perplexing hairstreak Behris metalmark sulfur sp. aumon blue CA thrasher MODO HOFI CAQU BusH

(73°)

week 3

Area & Tewel Valley

4/1/11

5:0900 clear sties winds 2-3 mph air temp: 80°F ground temp: 74°F E: 1515

clear skies

winds 2-3mph

air temp: 88°F

ground temp: 86°F

Social orangetip

Rearly marble

perplexing hairstreak

pale swallowtail

Buhris metalmark

CA white

acmon blue

brown ufin

Harford's sulfur

No QUB

(300 -) 730 Wask 4 seeke the transfer the transfer to the transfer 4/4/11 Area 7 Jewel Valley E: 1545 S: 0930 clearshes clear skies winds 5-8mph, gusts to 16mph winds air tamp: 680 F air temp: 660F ground temp: 77°F ground temp: 709= perplexing hairstreak Behis metalmaik Sara's orangety CA ring let Brown elfin HOFI CORA DOWN BUSH SCUTA

Jewel Valley Wind Energy Proj April 1, 2011

Britleyly, List

Dite 10

Orange Typ Felders (door) 11

Perplexing Haustreak

Metal Mark (Behes) 1744

Lite 2

Orange Try Fielders (door) 11



. Date 4/1/11 First Willey Wand Snergy Prog. Frame Conclusione : 5.40 AM Jame armediste (0.35 AM Jame Lamesine Jackin Jenu and 130 pm Jete 10 (south) Jeme star 10:35 Am Cloud Cover: 100% clean Wand Speed max 6.5 mph men : 2.1 mph Jerry: 20.0° aux : 3.9 mph Lide 10 (south) Jeme! 11:35 Am Cloud Comer: 100% Clear Wend Speed - may - 2.5 mph mark. : 1.0 mgh Jemp: 68.46

JW)

Cloud Cour : 100% Clear Clark Speed may: 3.6 mph men: 0.8 mph Jenyp: 98.40 June: 1:05 Pm Cloud Cour: 100% Clear Wend Speed my. 1.7 mph men. O. O mph Jemp: 85.6° June Dido PM Clouds Control Court Conser 100% Clouds Windspeed may Got myh may 0.0 mph aus 2.0 apn -) xxxy: 36.6°

3

Ale: 41/1/ Jule 2 (south)
Jame: 3:55 pm
Cloud Coner 10% Clour
Wend Speedrynox: 54mph
men: 3.2 mph
care: 3.8 mph
Cloud Coner: 100% clear
Wind Speed: mox: 7.0 mph
voun: 1.7 mph
ane. 25 mph
Temp: 61.0

Jewel Velly Wind Energy Proj'
March 30, 2011

Butleyly List

Sits 9

Grong typ Filder (desert) 1HL1

Western Tiga Swallowfail

Sonoran Blue

Jets 10

Grong typ Filder (desert) 1111

Jon or an Blue

Perplexing Haustriah

Jushyung sp. 11

1

Dake 3/30/11 Swell Villey Ward Greigy Proj. Time Leave for Sike: 6.30 Am Time Amus at Sik: 10:30 Am - Dice 9 Time Leave SIR. 325 PM Time end: 6:30 PM Time start: 10:45 Am Cloud Cover: 5 % Wend greed may : 7.3 mph men 0.8 mph aul: 1.6 mph Temp: 6910 Time: 10:55 AM Cloud Cover: 100% Clear Wind Speed: may: 39 mgh min: 06 mgh Tenp: 74.3° 1.7 mph

DW)

Late: 3/30/11 Tume: 12:55 pm Cloud Cover: 20% allend Speed innex 4.4 mph min. O. 9 mgh Temp 76.3° Site 10 (nath) Tume: 1.50 Pm Cloud Cover; 25% . Wend Speed may: 7.1mph men: O-Smph Temp: 75.0° Time: 3:05 pm . Cloud Cover: 35% . Wind speed: max 4.2mph min 1.5 mph are 2.3mph Temp:

Date 3/30/11

Lone: 3:25 pm Cloud Cover: 35%

allend Speed: may: 42 mph min: 0.9 mph

Temp: 75.5° au : 2.2 mph

Time: 3:25 PM surveyed 10 south area

Lewel Valley Wind Energy Moject

April 13, 2011

Butter of List
Area & Call)

Metal Mah Behis TH IIII @

Bushyuma Sp. 111 @

Brown Elfan: 1 @

Area 3 (all)

Metal mah Behis II @

1

Fate # 3353 Lewel Valley Ward Energy Proj. Jale: 4/13/11 Jane washerson 7.45 AM Ame armealsite: 10.10/m Fine was six: 164.2011 Line and . GODPM July # 2 Kinesmir. 10:30 Cloud Cover: 95% (lea Wind speed mox . 2.1 au: lit Jemp. GOF Cloud Come 100% decwind Speed mak 6.5 mph

Jerry (do. 2° f 2

men: O.9myh

Late 4/13/11 Cloud Cour 15.40/M Cloud Cour 25% Claus Word Speed my 9 Fingh own 0.5 mgh and 12 mgh France: 1.05 PM Cloud wer 95% Clear Wird Speed max Jeny 63 5 V Aute # 8' Frime 2.10 PM Hardlewy 100% clean Mend Spend onex 10 Gapte onen 1.0 apr and 2.4 mgh

Dus

Late: 4/13/11
Jane: 3-10AM
Cloud Could: 20% cloud Could
User Spied mex: 29 mph
run: 0.5 mph
are 14mph
Jemp: 600F

4

Lewel lally lland Energy Proj April 11; 2011

Butterfly List

Area 9 (all)

Metal Mork 141 (Behrs) 6

Dushywing Sp. 1

Oronget sp Sara 11

Oronget sp Pasert 111

Buckeye 1 1

Blue Sp. 1

Perplexing 1

Jene (caretor 5/16 7 15 mm . Jeme arrivalste. 9:00 Am

June Gamsik: 4:15PM Jerne on D: 6:00 PM

Jamesion: 9:00 Am Cloud Cover: 15% Clan 85% Cloud Cover Wind Speed mox: 3.2 mph min: 0.0 mph Jeng: 25.70 F

Teme: 10:15 Am Cloud Concer 70% cloud comen Whinh speech max 6.6 mph min: 1.4 mph aux: 1.60 mph Jeng: 60.4° F

Jate: 4/11/11

Jime: 12:05PM

Cloud Coner: 15% cloud cover

Wind pred my 4.9 mph

min: 0.5 mph

au 2.0 mph

Jemp: 66:7° F

Jewell Weller Wird Energy Proj.

April 10,2011

Butterfly List
Area II (all)

Blue Sp. 11 (3)

Anongfip Desert 111 (3)

Metalmark 1111 (Behis) (4)

Resplexing 1 (1)

Area 10 (southonly)

Orongetip Desert 1/ (3)

Hartfords Sulfur 1 (3)

A comm blue 1 (1)

Peoplexing 111)

Late: 1/10/11 Jems win tersin: 745 Am Jene armutsik: 10:00 Am Jeme consin: 3:45 pm Jeme and: 5:30 pm Jenesius: 10:00 AM Cloud Cover 100% clean Mindspeed: mor: D. 8 mph sum D. 8 mph ane: Ill mph Jemp. 53° F Jime: 10:45 Am Cloud Cour: 100% cloon Wind Speed Mox: 1.7 mph mu: 0.45 mph Jemp: 60.4°F

Late: 4/10/11 June: 12:30 pm Cloud Cover: 100% deor alund Speed mox 12.7 mph na- : 4.6mph Jenp: 65.10F June: 2:05 pm Cloud Coner: 100% Clear Wind Speed may: 9.5 mph mu 3.7 mph Jeny: 620°F Jeme: 3:40 PM Cloud Coner: 100 % Clear Wind Speed map: 6:8 mph min. 6.8 mph men. O.B mph Jemp: 63.7°F

Level Vallag 4/1/1 Pl InstrAnce is X your Omean Mart 1035 Routh and 100% (hord) Course 10 at 188 2.1 6.15 dryney 1000 Carreal Propherical hours hand 11 (2) 'goldheld' pede 2001/simbar 1 0 1,0 2.0 1 400, 88.4 1125 140 % Class Const wassely 1111 (1) Many openey with 2001 peda dime and which Lychumy When si () 120 pm 1200 1. 1. 10 2 at raid way.

MV

 \sqrt{M}

Lewel Valley p3"
Area 2 (north)
86,6° 100% chear Lizopin 0.0-6,420avg Funeral duskywing HAII (9) Cesest warysty MIII (8) Crypton tha horned birard +10 AH+ +10 -10 Behr's metalmost DILMAH WII HH dustaywing Sp. TH 3 aconon blue 11 (2) audubon rabbit fale swallowfail D perpleting hourstweet 11 (2) 3.2 - 5, y 3, Lear 88,0° at Southern engler end of southernana 2

 \sqrt{M}

461/16 Area 2 Spetted tow here turkey vulture Calyone Quail
White crowned sparrow
refores (spotted) sided towner
deer tracks Oregon Lunco black-throated sparren Calyonie Throsher bushfit Carge raphor next is large oak tree coordinates W 116 17 39,9 3900 feet elevation hest 1 8 ps in site Just Milly to west

 \sqrt{M}

Area 2 P.5 Manufaction of the mount of the 2 Top of northernound Court 100% clear 1.5 ho 2 day End morey 2 130 and 185 miles

VM

Week 5 Boulevard Bones General Wind Energy Freas Gard Upper 10 - 10 45 18-(1.6 avs) 7.3max 69.1 desert orangetip +44 1118 red shank chaparral ryp antha goldfreide
1055 100% clear
2,3-3,8 1. Para
74:3° at bokom of
northerly # 9 white throated
5 wifts - nesting in wock(?) Son gran Blue 11 (2)

VM

week 3 Jewel Vulley 3/30/11 0,9-4,4 15avg 1255 20% cloud 74,30 Southern g (area) Chesky wing Sp. 1410 int southern end of horthern 10 1,50 pm 750 0,5-7,1 2,7ang 25% cloud coner deer scat coyote scat Siva's ovangety 111 3 Futhley sp 1 0 ilue sp. 1 0 Behr's mital man 11 3

11

Signed Valley 430111
38 / Cloud Colorer
308 por 28. 40
38 conde

0.9 - 4.2 de song
38 conde

6 frank ne conservance

for frank ne conservance

for southern may 10
102 mile and

Jewel Valley 1/13/11
745 0 mile
100% clear gate 3333
100% clear 87 miles
100% con arrive to area 2 north. 2,7-2,1 1. Imphany 60° 1030 Conditions become Suitable. Behr's metalmant HUREN (20) 60.4° 1.2-4.0 2.1 aug 110 100% deaacmon blue 1120 in south 2 Cistagalus. 3 = 1 only seen perplexely hairstreak D dustyning spl D

11

11. 1. 1/10 (1) (1) 77 / 606 (2), 6 8 (2) (2) (2)

The same to the same of the sa

Jacob Comments of CO

(i)

Open Cagniners Boundaries on a Comment Paramage

11

And the second of the second o

Jewel Valley 4/10/11
Area 11 74 am Area 11 1009oclear om 18° 0.8 - 2.8 1.10g 4 Dave Waller 1045 1000 clear 60,4° 0,4- 1,7 0,6ag acmon Blue 111 3 Jul'I dover less than so in vicinity Desert wangetys (1) Sulfun Sp (2) perplexing harshick KIIII (4)
buckeye D

Grefor Sp

Behs metalman D

Last May 15 and Johnson Bragas Lee 100 1 1800 Court managers of 111 () Beho & n. France to 11 () grang Colonya Karanda (k. 1898) Zamada (haranda 1888) 18.67 * (Back) $\mathcal{L}(f)(a_p(x)).$ James Brown Company of the Co $(\{\alpha_k\}_{k=0}^{k})^{M} \times \{\beta_k\}_{k=0}^{k} \times \{\beta_k\}_{k=0}^{k}$ any was a first

11/

Mac of San Allower Strains of Str

Lewel Valley 4/11/11
Om, 715am anweat 9 am 83 mites at 9 north 55,7 85% cloud cover gam. weether not suitable so went to see access to Area 8 1015 60,40 1.4 - 6.6 1.6 aug 70% cloud cover start Area 9 north -Behrs metrimark/ 3 Desert vargety III in southern Area 9 at Backeye 111 armon blue 111 Sind orangety 11 @

week Javel Valley QCB area 2 3/9/11 BAU 10 mph . 5-7-5 gusts to 30 mph BEMMARL 1XX cle - cle Furerent Dishyung 1 v 60 mstade - 60-60-60 blue III 0946 - 1200 1400 1530 Sulphur 1111 CATH Puntellady X Rowa SCJA small redderh one a zo. (noth) antlope as BEWE parent mooderat and sen roughett V BUSHT mineblue? 11 JOSE BIJA 8040 creeks flowing TUVU - all PHAI 10 bloomy CARV goldfulde Mule dear sent (65 Kas I so popular flows erutum 4 COLA RTHA side-blotded lie CATO 5950 Lowo BCSP (wowhkenfore) BJ 5/ too (while unface) NOFL OATI WEJP HUFI W.P.ENJ

Week ! Jewel valley QCB 3/11/2011 Chr 1000- 1000 1600 7-5 mph - 5-10 ngusts to 15 63° 115 hade - 70 Much of thep arear would have (AQU WESP been 100% ilsted price to last RTH4 WC3P fice NOFL JUJA Grun H.S. 1 CATO familellady. CORA Cal rug let HOFI Balos MM(by) proleder Felders oT M- (45 a lot of diff- diveral mother M - Desert Co. JUVU Mr BTSP PERFERENCEPEP WREN M-8060 M-line tites (magbe 2 sets?) 3 x3 + *18 in between steps strought line three roy. RORU BIJA ROWR Kost sp. the + teil dray R- GRSP frey buby nouse white order Universely art. R- birsh lix? M. Ant. gs R- W. Diener & back +3' late of bottom Degert wadrat.

Jewel valley aren 3 1000-1610 0-20% 65-70°F 5-10, gosts to 15 mph TOVO ... CORA Cal singlet IIII RTHA CATO pale sullowfor / CAQU Behrs um IVXI coyote Feldow of HIT nestern fence l'eard Painted lady) doset coltentail all and Green H.S. 11 BUSH YRWA WESP 5058 HOFI LELO LOSH NUND BTSI M-BTJR - -M. desert wood rat middens Pac. treefreg western toal unledeer tihr

BHCO

GTAR

3/18/11 Jewel valley all area 1 - week 2 1010930 - 1530 Po two Harring Rober 62-165 F 20-0% 5-10, gosts to 15mpy AMKE Buan Painted lady 111 RTHA perplex H.S. M-Stroped showle Felders ot SPTO W/ JONS in fow blue sp. CATO Funered Dw 11 HOFI reddish noth v EUIT Nous WEBL M- Coon M- 665 M - Desert cottontas WREN M - Krat LEUD BUSH B 460 JLJA Mono MODO COHA M-coyofe R-gophersnute - young R-log-noved kepard to BLPH CAKI TUVU

Week Z Enel Jewel valley aren 5 BAD 3/29/2011 1100-160 660 5/10 mgh 10% I an actival loss flow channel trang. Solar site in flood Plan but 1: AF 5 age sure & Bas scrub? gold finlds + lthe deed mourie (JUV persumpers sp.) white flowers little oquine/ (antelope g.s.) 8040 CABU TUVU AMKE Corole Brown elfin -SCJA Acman Ble BLPH BEMM. Commo white (doton wing) CATO ALWO south 5 NOFL WREN 700 RORU 3-5 10% 5B/12 Wesp CATH BUH NOW CORA mile down MODO CATO 48 CAQU SCIA ANHU sn 65. DE EATI Assocrydant funerent dulying INTSW tyer sullinster (ATH Benin achlue LOYT SOFF theologid white Pygon imprex anti bons elfin neare) Swn of Perplex Ms.

Week 4 4/1/11 Junel valley aren 9 mech 4 1000-1500 63-66°F tger sunllenfast 11 0-0% 3-5, justs to 10 perplex. H.S. 1111 acmerblue 1 blue sp. 1 Behrs mm UT) Modo ALEUS Fucheral SCJA Common white 11 R-50. pac. down black OTIP 1 22 1 m-anklope a g.s. here by R- lay word lepp. liz. R- B.B. liz R- granite sping LOSH M- mart CAKINA M- Cas arth M - devert cutantai) TUVU ANHO ALWO but YRWA HOFF BISP 0. LASP WEBL WEK BLPH AMKE

Aven 10 4/14/2011

B40

Jewel Valley QB

Wark 5

1100-1700 63-65°F 0% clouds 3-5-2-10mph

CORA RTHA CAKI 18 MTBL HOWR SLUM NOMO BUSH coyote Dosert attental ANHU BIJP CATO SOSP CAQU LEGO bobeat scat

C95

JASP

southern purtice diamen Mach

Pehrs may - XXXX

Painted lady -X

Pake sunllowfail - 1

Soon OT - X

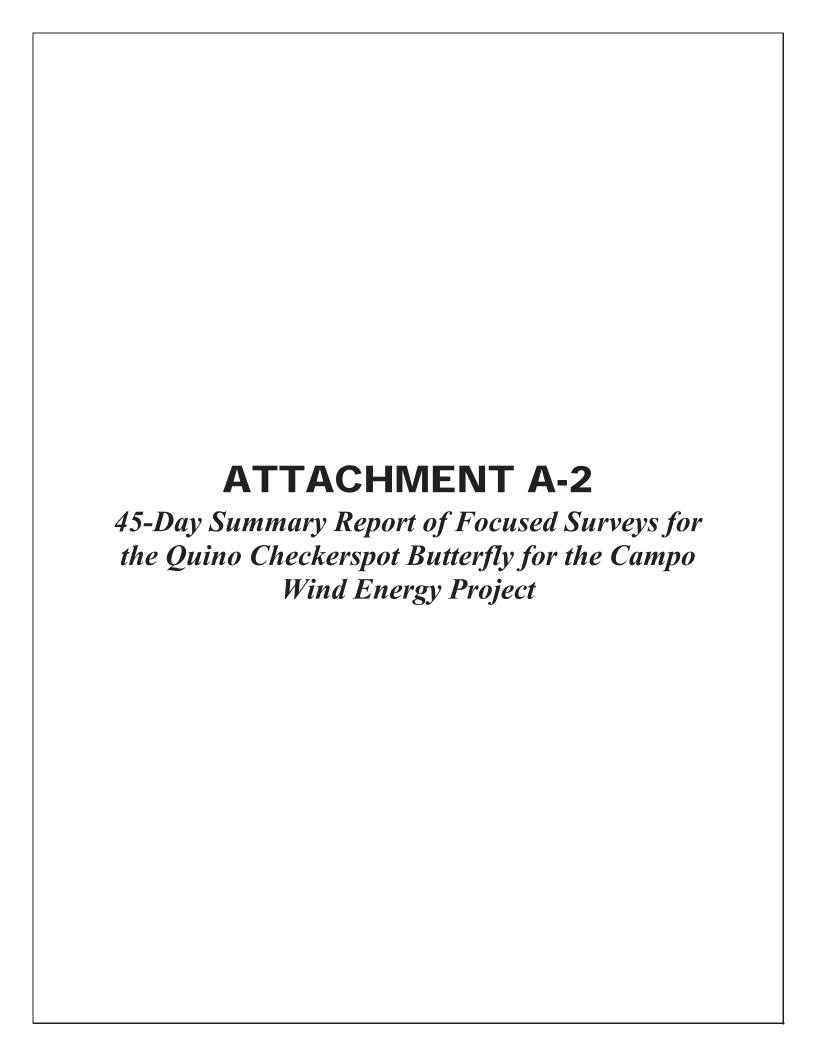
Southing bloc - X

Green harstoon - XXXXX

Common white - X

Green bloc - XX

Finement Dev - X





AECOM 1420 Kettner Boulevard Suite 500 San Diego, CA 92101 www.aecom.com 619.233.1454 tel 619.233.0952 fax

July 5, 2010

Ms. Sandy Marquez
Recovery Permit Coordinator
Carlsbad Fish and Wildlife Office
6010 Hidden Valley Road, Suite 101
Carlsbad, California 92011

RE: 45-Day Summary Report of Focused Surveys for the Quino Checkerspot Butterfly for the Campo Wind Energy Project

Dear Ms. Marquez:

In compliance with the Special Terms and Conditions for Endangered and Threatened Wildlife Species Permit TE-820658-4.6, AECOM submits this letter report summarizing the results of focused surveys conducted during 2010 for the federally listed endangered Quino checkerspot butterfly (*Euphydryas editha quino*; Quino) associated with the Campo Wind Energy Project. AECOM currently holds an Endangered and Threatened Species Permit issued by the U.S. Fish and Wildlife Service (USFWS) under Section 10(a) of the federal Endangered Species Act. This permit authorizes AECOM to conduct presence/absence surveys for Quino and other species.

Project Description

The Campo Band of Mission Indians (a California federally recognized Indian tribe), Muht-Hei, Inc. (a tribally chartered corporation wholly owned by the Campo Band of Mission Indians), the Bureau of Indian Affairs, and Invenergy Wind California, LLC, propose construction and operation of a wind generation facility on the Campo Indian Reservation in southeastern San Diego County. This facility would be capable of generating up to 300 megawatts (MW) of electricity and would include turbine strings, substations, transmission facilities, and access roads. The exact footprint of project features is currently being designed. Generally, strings of 2.5-MW turbines are being considered for installation across ridgelines that do not contain residences throughout the reservation, including areas north and south of both Interstate 8 and State Route 94. Each turbine would be set on a large concrete foundation. Turbines would be connected by underground electrical cables to one or two substations. Each substation would be sited on approximately 2 to 3 acres and would consist of a graveled, fenced area containing transformer and switching equipment and an area to park utility vehicles. In addition, a three-phase overhead transmissions circuit would be constructed from each substation and would connect to the existing transmission network. Other likely facilities would include an Operations and Maintenance building; new access roads; and a temporary concrete batch plant. The biological survey area (BSA) identified for the proposed project includes approximately 4,417 acres. This acreage consists of all proposed project features with a 500-foot buffer around new, proposed features, and a 100-foot buffer around existing features of the site that are proposed to be used or modified (i.e., existing roads).



Ms. Sandy Marquez Carlsbad Fish and Wildlife Office July 5, 2010 Page 2

Site Description

The Campo Indian Reservation includes lands both north and south of Interstate 8 along the Tecate Divide, extending to a quarter of a mile north of the California and Mexico international border (Figure 1). The reservation is located between the communities of Old Campo and Jacumba, around the community of Live Oak Springs, and bisected by Church Road (Figure 2). On-site elevation ranges from approximately 3,030 to 4,320 feet above mean sea level.

The BSA supports a variety of habitat types and vegetation communities but is dominated by chamise chaparral with both a monotypic phase and a mixed chaparral phase. Additional vegetation communities found throughout the site and especially along ridges and slopes include redshank chaparral, big sagebrush scrub, and Sonoran subshrub scrub. A series of north-south-running ridges is located throughout the proposed project site separated by shallow valleys consisting of coast live oak woodland, nonnative grassland, and southern willow scrub vegetation. Buckwheat scrub is interspersed throughout the chamise chaparral primarily in shallow valleys, along washes and roads, and along firebreaks. Various large rock-outcrops are scattered throughout the site but are primarily located along the ridgelines.

Background Information

The Quino was added to the federal Endangered Species List by USFWS on January 16, 1997 (USFWS 1997). The species (*E. editha*) has a range extending from British Columbia and Alberta, Canada, south through Colorado and Utah, and west along the coast to northern Baja California. It is divided into 20 subspecies, each of which has its own range and biological and morphological characteristics. In California, there are 12 subspecies (Garth and Tilden 1986). Three other subspecies of *E. editha* are currently known to occur in Southern California. The Quino is the southwesternmost subspecies of *E. editha* (Mattoni et al. 1997).

The Quino is known to occur in association with a variety of plant communities, soil types, and elevations (up to 5,000 feet). The plant communities include clay soil meadows, open grasslands, coastal sage scrub, chamise chaparral, red shank chaparral, juniper woodlands, and semi-desert scrub (Ballmer et al. 2001). The Quino is also associated with clay soils that possess cryptogamic crusts and vernal pools (USFWS 2002).

The Quino is a medium-sized butterfly (approximately 0.8- to 1.1-inch wingspan) belonging to the family Nymphalidae. The adults are primarily orange-red with white and have black markings on the dorsal wing surface. They are active primarily in March and April. This active period may vary depending on weather conditions (Ballmer et al. 2001). The adult butterfly feeds on nectar, which it obtains from spring annuals such as popcorn flower (*Cryptantha* spp.), Layia (*Layia glandulosa*), goldenbush (*Ericameria* spp.), pincushion (*Chaenactis* spp.), fiddleneck (*Amsinckia intermedia*), chia (*Salvia columbariae*), and blue dicks (*Dichelostemma pulchella*), among others. It cannot use flowers that possess deep corolla tubes, such as monkeyflower (*Mimulus* spp.), or those that can be opened by bees,

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such as snapdragons (USFWS 2002). Adult males and virgin females sometimes "hilltop," or travel to elevated locations to find mates. While waiting for females to arrive, the males will often exhibit "territorial behavior" and will chase other butterflies that approach them. Frequently, the butterflies are observed in meadows or clearings where their host plants occur (Ballmer et al. 2001).

A female may lay 20 to 75 eggs at one time and may produce up to 1,200 eggs in her lifetime. The eggs hatch in approximately 10 days under favorable weather conditions and the young larvae will immediately begin to feed upon a host plant. The feeding larvae use the dot-seed plantain (*Plantago erecta*), Patagonia plantain (*Plantago patagonica*), white snapdragon (*Antirrhinum coulterianum*), and Chinese houses (*Collinsia concolor*) as their host plants (Pratt 2009). Dark-tipped bird's-beak (*Cordylanthus rigidus*) and owl's clover (*Castilleja exserta*) are considered secondary hosts (USFWS 2002). New evidence suggests that Chinese houses is a primary larval food plant for Quino in the 900 to 1,300-meter elevation range (Pratt 2009), which is within the range coincident with the BSA.

After feeding, the early larva enters an obligatory aestival diapause (dormant stage), which may be broken after fall or winter rains (Murphy and White 1984; Osborne 1998). If adverse weather conditions occur, the emergent larva may reenter a diapause stage repeatedly, for up to 5 or 6 years, until favorable weather conditions permit sufficient growth of the host plant to allow the larva to complete its development.

The Quino was once common in Southern California. It ranged north into Ventura County, west to the Pacific Ocean, east to the deserts, and south into northern Baja California. Currently, it is known to occur only in a few, probably isolated, colonies in southwestern Riverside County, San Diego County, and northern Baja California.

Reasons for the butterfly's reduction in population are not well understood. Habitat loss due to degradation and fragmentation caused by urban and rural development, agricultural conversion, off-road-vehicular use, the invasion of nonnative plants and insects, fire management practices, overcollecting, and adverse weather conditions have likely contributed to the species' decline (USFWS 1997).

USFWS recommends that focused Quino surveys be conducted a minimum of five times during the adult flight season by biologists possessing a recovery permit for this species pursuant to Section 10(a)(1)(A) of the Endangered Species Act. The Quino flight season within a given area is determined by the activity of known Quino populations that are monitored annually by USFWS.

Survey Methodology

Habitat Assessment

Prior to the initiation of surveys, a focused habitat assessment of the 4,417-acre BSA was conducted from March 1 through March 5 and March 15 through March 17. One additional

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day of habitat assessments was conducted on March 22 for adjustments to the proposed project footprint that were added during the week of March 8. Habitat assessments were conducted by Project permitted biologists David Faulkner, Martha Heath, Michael Klein, Ken Osborne, and Dale Powell. These permitted biologists were assisted by project supervised biologists Andrew Fisher and Shirley Innecken.

An internal meeting took place on March 10, 2010, to compile, review, and discuss the results of initial habitat assessments with project biologists Barbra Calantas, Dave Faulkner, Andrew Fisher, Michael Klein, and Erin Riley. Upon review of the initial habitat assessment mapping, differences in the interpretation of the USFWS Quino survey protocol (USFWS 2002) with regard to chaparral density and areas to include or exclude from surveys were identified and discussed. The survey protocol recommends excluding "dense chaparral" and "small openings (less than an acre) completely enclosed within dense chaparral." It further defines "dense chaparral" as "vegetation so thick that it is inaccessible to humans except by destruction of woody vegetation for at least 100 meters."

Ken Osborne defined excluded habitat using a strict interpretation of the protocol definition of dense chaparral. David Faulkner and Michael Klein applied a more restrictive interpretation of the protocol as it applied to the BSA than initially assumed in many areas. Their interpretation of excluded areas resulted in a narrowing of habitat to be surveyed. This was based on refining the mapping of dense chaparral to include vegetation that was relatively easily traversed and thought to be the optimal Quino habitat on-site. It was decided at this meeting that field review of initial habitat assessments would take place to ensure a consistent interpretation of the survey protocol and approach on habitat assessment mapping throughout the BSA.

These conclusions regarding the mapping of potential Quino habitat during the habitat assessment were discussed at a meeting on March 11, 2010, with USFWS, Invenergy, Lisa Gover (Campo Environmental Protection Agency), AECOM, and subcontracted biologist David Faulkner. At this meeting, AECOM and Invenergy provided a background of the project and discussed biological surveys scoped for the project. AECOM and David Faulkner provided the results of the initial habitat assessment mapping. David Faulkner described conditions at various specific areas within the survey area boundary and adjacent areas based on his experience completing Quino surveys for the proposed Campo Landfill project in prior years. He explained why these areas were or were not suitable for Quino, stating that most excluded areas consisted of closed-canopy chaparral (AECOM 2010).

It was agreed upon at the March 11, 2010, meeting that focused surveys should likely start the week of March 22, 2010, based on site conditions and seasonal weather patterns. Also, it was discussed that a typical survey week could be expected to last as long as 9 to 10 calendar days instead of the usually 7-day week due to adverse weather conditions given the elevation and interior mountain location of the site. USFWS agreed on the approach to habitat assessments that was discussed at the March 11, 2010 meeting. USFWS also concurred on the start date and survey week length.

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Follow-up field review of Quino habitat assessments took place from March 15 through March 17, 2010. AECOM staff, Michael Klein, and David Faulkner conducted this second round of habitat assessments. Thus, areas defined as suitable Quino habitat during the first week of habitat assessments were reassessed to further refine mapping of closed-canopy chaparral habitat. The resulting 1,806 acres of included habitat is depicted in Figure 3 (see "original survey area").

As the focused adult surveys ensued, some surveyors observed patches of open habitat in the dense chaparral they deemed suitable for the species. Starting in survey week 2, Quino observations were made outside of the original survey area (Figure 3). The survey area was expanded during survey week 2 to include additional trails and narrow openings in the chaparral that were not easily visible during habitat assessments. The expanded survey area is depicted in Figure 3 and constitutes approximately 541 additional acres.

The total original Quino survey area within the BSA is approximately 1,806 acres. Focused surveys were conducted for 6 weeks over this 1,806-acre survey area according to the most current USFWS protocol (USFWS 2002). The expanded survey area, comprised of 541 acres, was surveyed according to the survey guidelines during weeks 2 through 6, thus receiving a full 5 weeks of surveys and spanning the entire documented 2010 flight season of the species in the BSA (Figure 3). Thus, focused surveys were conducted for a minimum of 5 weeks over the entire 2,347-acre survey area according to the most current USFWS protocol (USFWS 2002).

The final habitat assessment map including both the original and expanded survey areas and depicting all excluded habitats is presented on USGS Quad maps at 200 percent (Figure 4). Host plant locations are also depicted on the habitat assessment maps. The criteria for including habitat in the final survey area include the following:

- chaparral and scrub communities with passable openings between shrubs
- dirt roads and trails
- open hilltops and ridges
- rock outcroppings
- areas with concentrated nectaring sources and host plants

Focused Adult Quino Surveys

The start date for focused adult Quino surveys was determined based on the following: (1) the first detection of Quino during surveys for another project on the Campo Indian Reservation directly adjacent to the proposed project the previous year; (2) conditions at the project site this year relative to last year; and (3) conditions at the Jacumba reference site monitored by USFWS. Project biologists Michael Klein and David Faulkner conducted focused surveys for the proposed Campo Landfill project in previous years and provided input that the first Quino detections at the Campo Landfill site occurred around the third week of March the previous year. Based on this information, Ken Osborne stated that the flight season would likely begin at the Jacumba reference site around the third week of

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March (Osborne 2010). However, based on colder temperatures at the site in mid-March, which delayed the flight season by at least by another week, and the lack of Quino at the Campo Landfill site that was being monitored during that time, it later was agreed that the fourth week of March would be an appropriate start date for surveys. Thus, focused adult surveys commenced on March 22, 2010, by surveyors Natalie Brodie, Gretchen Cummings, David Flietner, Martha Heath, Erik LaCoste, Brian Lostroh, Viviane Marquez, Margie Mulligan, Ken Osborne, Andrew Pigniolo, and Dale Powell.

The survey routes of each permitted biologist were recorded and mapped electronically using Garmin Global Positioning System (GPS) units. A list of all biologists who conducted habitat assessments and focused surveys, and their corresponding permit numbers is provided in Table 1. A summary of the survey schedule is presented in Table 2.

Table 1
Survey Personnel and TE Permit Numbers

Biologist	#TE Permit Number			
Erin Bergman	#TE-820658 (supervised)			
Natalie Brodie	#TE-135948			
Michael Couffer	#TE-782703			
Gretchen Cummings	#TE-031850			
Frank Dittmer	#TE-225938			
David Faulkner	#TE-838743			
Andrew Fisher	#TE-820658 (supervised)			
David Flietner	#TE-008031			
Antonette Gutierrez	#TE-797999			
Martha Heath	#TE-099005			
Bonnie Hendricks	#TE-820658			
Shirley Innecken	#TE-820658 (supervised)			
Diana Jensen	#TE-797999			
Michael Klein	#TE-039305			
Gina Krantz	#TE-797999 (supervised)			
Erik LaCoste	#TE-027736			
Brian Lohstroh	#TE-063608			
Viviane Marquez	#TE-800930			
James McMorran	#TE-820658 (supervised)			
Margie Mulligan	#TE-233291			
Ken Osborne	#TE-837760			
Andrew Pigniolo	#TE-053020			
Dale Powell	#TE-006559			
Steve Rink	#TE-797999			



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Table 2
Quino Checkerspot Butterfly Survey Schedule

Survey Week	Date	Survey Team	# Calendar Days ²	# Person Days	Survey Rate
1	03/22/2010 – 04/02/2010	Brodie, Cummings, Faulkner, Fisher ¹ , Flietner, Heath, Innecken ¹ , LaCoste, Lohstroh, Marquez, McMorran ¹ , Mulligan, Osborne, Pigniolo, Powell	12 (5 days cancelled, 3 days delayed due to weather)	24	75 acres/day
2	04/02/2010 – 04/17/2010	Bergman ¹ , Brodie, Couffer, Cummings, Faulkner, Flietner, Gutierrez, Hendricks, Innecken ¹ , Jensen, LaCoste, Lohstroh, McMorran ¹ , Mulligan, Osborne, Powell		29	81 acres/day
3	04/18/2010 – 04/26/2010	Bergman ¹ , Brodie, Couffer, Faulkner, Gutierrez, Hendricks, LaCoste, Lohstroh, Mulligan, Powell	7 (2 days cancelled, 2 days ended early due to weather)	27	87 acres/day
4	04/27/2010 – 05/05/2010	Bergman ¹ , Brodie, Couffer, Dittmer, Faulkner, Fisher ¹ , Flietner, Gutierrez, Krantz, Hendricks, Lohstroh, Mulligan, Pigniolo, Powell, Rink	9 (3 days cancelled due to weather)	30	78 acres/day
5	05/05/2010 – 05/11/2010	Brodie, Couffer, Faulkner, LaCoste, Marquez, McMorran ¹ , Mulligan, Osborne, Powell	8 (3 days cancelled due to weather)	24	97 acres/day
6	05/12/2010 – 05/20/2010	Brodie, Couffer, Faulkner, Flietner, Lohstroh, Marquez, Mulligan, Powell	8 (1 day cancelled, 1 day ended early due to weather)	23	99 acres/day

¹ Supervised to survey under TE# 820658.

Results

Six weeks of focused surveys were conducted for the approximate 1,806 acres of the original focused survey area, shown in Figure 3. The expanded focused survey area of approximately 541 acres was surveyed from weeks 2 through 6 according to the USFWS protocol (USFWS 2002).

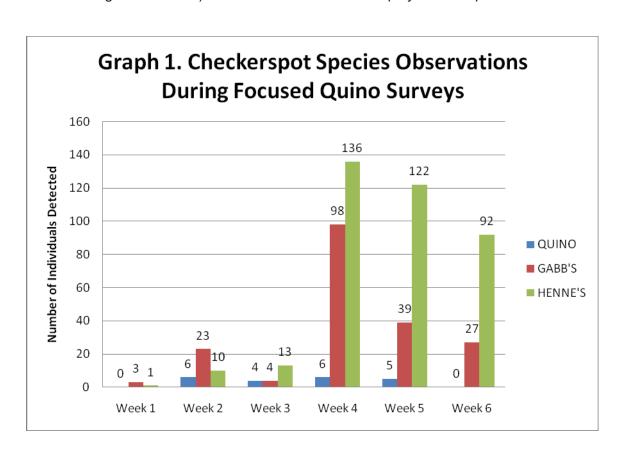
² Cancelled calendar days, delayed calendar days, and calendar days where surveys were ended early are a result of unacceptable weather conditions outlined in the USFWS protocol.



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After 5 weeks of surveys, it was determined that a sixth week of Quino surveys at the site was necessary, based on continued observations of Quino individuals during the fifth week that appeared in moderate condition with minimal fading of wing color and fraying of wing edges. Potential larval host plants, including Chinese houses, were blooming with increasing abundance during survey week 5. While the actual blooms of Chinese houses do not benefit Quino larvae, the blooming cycle indicates that Chinese houses were still green and supple, and had not yet dried up during the Quino survey season. Thus, the host plants were still available for Quino larvae to feed on during the Quino survey season. Based on the continued presence of adult Quino and blooming stage of potential larval host plants during survey week 5, a sixth week of focused adult Quino surveys was added to the season. Per discussions with USFWS during survey week 5, Eric Porter and the project team determined that area already surveyed during weeks 1 through 5 in the southern third of the BSA did not need additional focused surveys (Figure 3) (Meyer 2010). This determination was based on number of Quino observations that clearly established presence of the species in this area (Figure 3).

Three checkerspot species were detected on-site, Quino, Gabb's checkerspot (*Chlosyne gabbi*), and Henne's chalcedon checkerspot (*Euphydryas chalcedona*). Observations of these three species overlapped with the exception of survey weeks 1 and 6 (no Quino detected during these weeks). These observations are displayed in Graph 1.



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Survey-specific weather conditions and personnel are presented in Appendix A. Field datasheets are included as Appendix B.

A total of 61 butterfly species and various moth species were detected within the survey area, with peak numbers generally occurring during survey weeks 3 and 4. A list of all butterfly species observed within the survey area each survey week is summarized in Appendix C. A list of potential nectaring plant species in flower each survey week is presented in Appendix D. Generally, nectaring plants increased in diversity and abundance during survey weeks 3 and 4, which coincided with the times that Quino and other checkerspots were observed in greatest abundance. A list of vertebrate species detected during focused Quino surveys is presented in Appendix E.

During spring 2010, vegetation mapping and rare plant surveys were ongoing and concurrent with focused Quino surveys for the project. Botanists conducting vegetation mapping and rare plant surveys across 100 percent of the BSA also mapped all potential Quino larval host plants observed, including Chinese houses, Coulter's snapdragon, and dark-tip bird's beak. On-site, Chinese houses was the most abundant potential host plant and was associated with the chaparral understory and adjacent open areas of habitat. Coulter's snapdragon was also associated with the chaparral understory and open areas. Of these three species observed within the survey area, only Chinese houses was vegetatively mature as early as April, during the peak of Quino observations. The blooming period for Chinese houses on-site during spring 2010 was from mid-April to late-June. This species was past its peak bloom and in full fruit by late June. The other two species documented onsite, dark-tip bird's beak and Coulter's snapdragon, were present only as small basal rosettes and/or diminutive, immature plants in April. Coulter's snapdragon began blooming in early May in some areas, and dark-tip bird's beak is not expected to fully mature and bloom until July. All host plants that were detected within the survey area, including observations made by Quino surveyors and botanists during rare plant surveys, are provided in Figure 5.

Twenty-one Quino observations were made during the survey period during focused surveys. Two of these observations were likely of the same individual Quino due to distinct markings; therefore, 20 distinct Quino individuals were observed during focused surveys. Six additional Quino observations occurred incidentally during non-Quino project-specific survey efforts, which represent at least four distinct Quino individuals. Therefore, a minimum of 24 distinct Quino individuals were observed within the Campo Indian Reservation during the survey period, with a maximum of 27 observations made. Among these, eight of the observations occurred just outside the project boundaries on the Campo Indian Reservation as surveyors walked to and from their vehicle to access the site. All Quino detections are displayed in Figures 3 and 4. Information for each Quino sighting, including the survey week (where applicable), date, time, weather conditions, surveyor, and number of Quino individuals detected, is provided in Table 3. Detailed information on each sighting, including weather conditions, habitat conditions, and photographs of the habitat and/or individual(s) detected as applicable, is provided in the corresponding 24-hour notification letter (Appendix F).

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Table 3 **Quino Checkerspot Butterfly Observations**

Observation Number	Survey Week	Date	Time	Temp	Wind	% Cloud Cover	Observer/ Permitted Biologist	Date Reported to USFWS	Number of Quino Observed
1	2 ¹	04/08/2010	12:40-13:15	68.0°F	1-3 mph	0	Andrew Fisher ² , James McMorran ²	04/09/2010	3 individuals
2	2	04/09/2010	13:00-13:15	73.0°F	0	0	Dave Flietner, Erin Bergman ²	4/12/2010	2 individuals
3	2	04/13/2010	10:30	58.0°F	3 mph	0	Michael Couffer	04/14/2010	1 individual
4	2	04/15/2010	15:48-15:57	73.0°F	0	10	Ken Osborne	04/16/2010	2 individuals
5	2 ¹	04/15/2010	10:15	64.4°F	3.3 mph	0	Andrew Fisher ²	04/16/2010	1 individual
6	2 ¹	04/15/2010	13:15	72.0°F	3.5-8 mph	100	Andrew Fisher ² , James McMorran ²	04/16/2010	1 individual ³
7	2	04/16/2010	10:10	71.5°F	1.7-4.2 mph	0	Bonnie Hendricks	04/16/2010	1 individual
8	3	04/19/2010	13:45	75.0°F	0-5 mph	5	Michael Couffer	04/19/2010	2 individuals
9	3	04/24/2010	13:20	82.0°F	0-3 mph	0	Michael Couffer	04/26/2010	1 individual
10	3	04/26/2010	14:13	82.0°F	0-3 mph	0	Michael Couffer	04/27/2010	1 individual
11	4 ¹	04/27/2010	11:45	74.0°F	1-7 mph	15	Andrew Fisher ²	04/29/2010	1 individual
12	4	04/27/2010	12:40	80.0°F	7-13 mph	5	Michael Couffer	04/29/2010	1 individual⁴
13	4	04/27/2010	12:27	74.0°F	5-7 mph	0	Dale Powell, Andrew Fisher ²	04/29/2010	1 individual
14	4	04/27/2010	14:45	76.0°F	0-2 mph	10	Michael Couffer	04/29/2010	1 individual
15	4	04/27/2010	15:40-15:47	76.0°F	0-4 mph	10	Michael Couffer	04/29/2010	1 individual
16	4	05/01/2010	09:58-10:08	64.0°F	2-5 mph	0	Michael Couffer, Andrew Fisher ²	05/02/2010	2 individuals
17	5	05/06/2010	08:45	73.0°F	1-5 mph	0	Antonette Gutierrez, Gina Krantz ²	05/07/2010	1 individual
18	5	05/06/2010	10:44	73.0°F	1-5 mph	0	Michael Couffer	05/07/2010	1 individual ⁵
19	5	05/06/2010	10:28; 12:04	71.0°F; 76.0°F	1-3 mph; 0-5 mph	0	Michael Couffer	05/07/2010	2 individuals
20	5	05/07/2010	11:25	76.0°F	0-6 mph	0	Michael Couffer	05/07/2010	1 individual

¹ Quino not observed during a focused survey; individual(s) observed incidentally during project avian surveys.

² Supervised. All observations made by supervised biologists were verified through photographs taken of the Quino individuals (see Appendix F).

³ Individual is likely the same as one of three individuals documented in Observation 1.

⁴ Likely the same Quino individual observed in Observation 11.

⁵ Likely the same Quino individual observed in Observation 17.



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Quino detections are primarily concentrated in the southern portion of the project area south of State Route 94. There are also at least four sightings in the northern portion of the project area near Interstate 8. One area of habitat in the southern portion of the site was adjacent to a previously known Quino location (Faulkner 2010). This area had the highest density of Quino individuals observed, with a cluster of nine total Quino observations throughout the survey period in the expanded survey area (Figure 3 – Inset 3).

Discussion

A total of 27 individual Quino observations (representing a minimum of 24 individual Quino) were made during the flight season, with likely repeat observations of the same individuals in at least three cases (Figure 3 - Inset 2 and Inset 3).

As recorded in Table 3, no Quino were detected during survey week 1. The first detection of Quino this season occurred on April 8, 2010, during the week 2 survey period. Quino were detected during survey weeks 2 through 5. No Quino were detected during survey week 6 on-site. Thus, the survey window of March 22 to May 20 appears to have appropriately encompassed the flight season for Quino at the project site this year.

After conclusion of the field season on June 24, 2010, an internal meeting between AECOM biologists and subconsultant biologists (Barbra Calantas, Michael Couffer, David Faulkner, Andrew Fisher, Bonnie Hendricks, Scott McMillan, Antonette Gutierrez, Ken Osborne, and Erin Riley) took place to discuss focused survey results and conclusions.

This meeting assessed results of adult focused surveys, host plant mapping and vegetation mapping across the entire BSA. In comparing the focused Quino survey area to the larger BSA, spans of dense chaparral with small openings exist outside of the survey area. These areas may incur some use by Quino at a reduced level. These spans of dense chaparral are suitable for the overall persistence of the population but do not consist of high quality Quino habitat. These areas lack concentrations of resources that would be likely to support dense localized Quino numbers or use at this point in time given the maturity of the chaparral community based on lack of recent fire or other disturbances. These areas of dense chaparral include hilltops/ridgelines and populations of host plants and nectaring sources that may serve as a resource to some degree to the local Quino population despite being excludable by interpretation of the survey protocol.

The total area surveyed, including the original and expanded survey areas (2,347 acres), represents what is considered the optimal habitat for Quino on-site. Of the areas surveyed, Quino were observed in a small percentage of the total survey area. The Quino is known to undergo population fluctuations with extirpation of local populations and recolonization of new areas in a fashion characteristic of metapopulation dynamics (Osborne 1998). Thus, the participants of the June 24 meeting concluded that a larger area of suitable habitat totaling 3,456 acres is potentially supporting the persistence of the species. Much of this area was excluded from surveys based on the presence of dense chaparral. However, the larger area of suitable habitat defined in Figure 5 includes all chaparral with host plants and



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occasional openings (>1 acre). This area of suitable habitat is most relevant for discussing the larger patterns of species distribution through space and time (Figure 5).

If you have any questions or comments regarding this letter report, please contact me at (619) 233-1454.

Sincerely,

Barbra Calantas

Associate Wildlife Biologist barbra.calantas@aecom.com

Attachments: Figure 1 – Regional Map

Figure 2 – Vicinity Map

Figure 3 – Quino Survey Area and Detections

Figure 4 – Quino Habitat Assessment (Map Pocket)

Figure 5 – Quino Larval Host Plants and Suitable Habitat

Appendix A – Daily Weather Conditions for Focused Quino Surveys on

Campo Wind Energy Project

Appendix B - Field Data Sheets

Appendix C – Summary of Butterfly and Moth Species Observed during

Focused Quino Checkerspot Butterfly Surveys for the Campo

Wind Energy Project

Appendix D – Weekly Flowering Plant Observations for Campo Wind

Energy Project

Appendix E – Vertebrate Species Detected during Focused Quino Surveys

for Campo Wind Energy Project

Appendix F – 24-hour Notification Letters to USFWS

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Certification

Qualified biologists who conducted Quino checkerspot butterfly habitat assessments and focused adult surveys for the Campo Wind Energy Site certify that the information in this survey report fully and accurately represents the work performed by AECOM biologists. Signatures of permitted biologists as listed in Table 1 who conducted focused surveys (March 22 through May 20, 2010) are included below. The results of focused surveys for listed species are typically considered valid for 1 year by the resource agencies.

Bonnie Hendricks AECOM Quino Surveyor

Michael Couffer Subcontracted Quino Surveyor

Frank Dittmer
Subcontracted Quino Surveyor

Martha Heath Subcontracted Quino Surveyor

Diana Jensen Subcontracted Quino Surveyor Natalie Brodie

Subcontracted Quino Surveyor

Gretchen Cummings

retales Cummings

Subcontracted Quino Surveyor

David Faulkner

Subcontracted Quino Surveyor

Steve Rink

Subcontracted Quino Surveyor

Erik LaCoste

Subcontracted Quino Surveyor

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Brian Lohstroh Subcontracted Quino Surveyor

Bonn S. Lo

Margie Mulligan Subcontracted Quino Surveyor

Andrew Pigniolo Subcontracted Quino Surveyor

Antonette Gutierrez Subcontracted Quino Surveyor Viviane Marquez Subcontracted Quino Surveyor

Tane Marque

Ken Osborne

Subcontracted Quino Surveyor

Dale Powell

Subcontracted Quino Surveyor

David Flietner

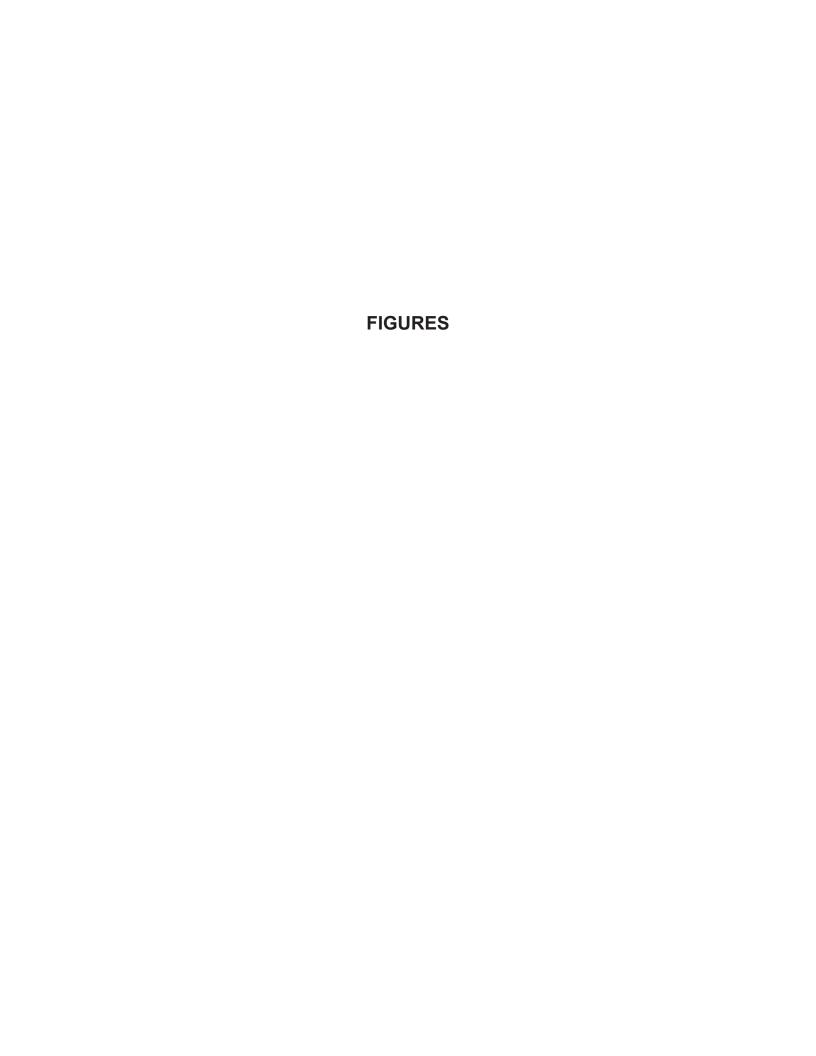
Subcontracted Quino Surveyor

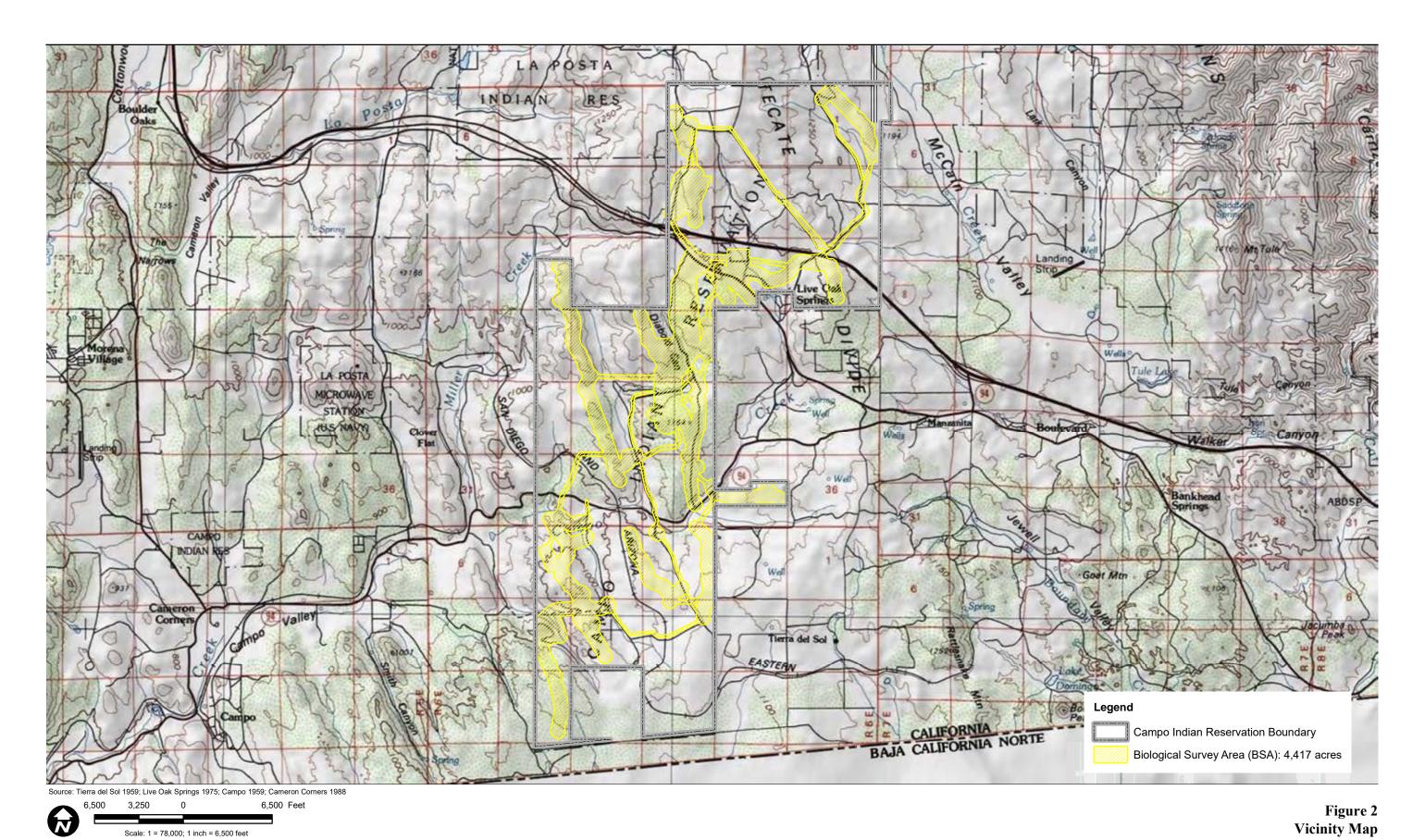


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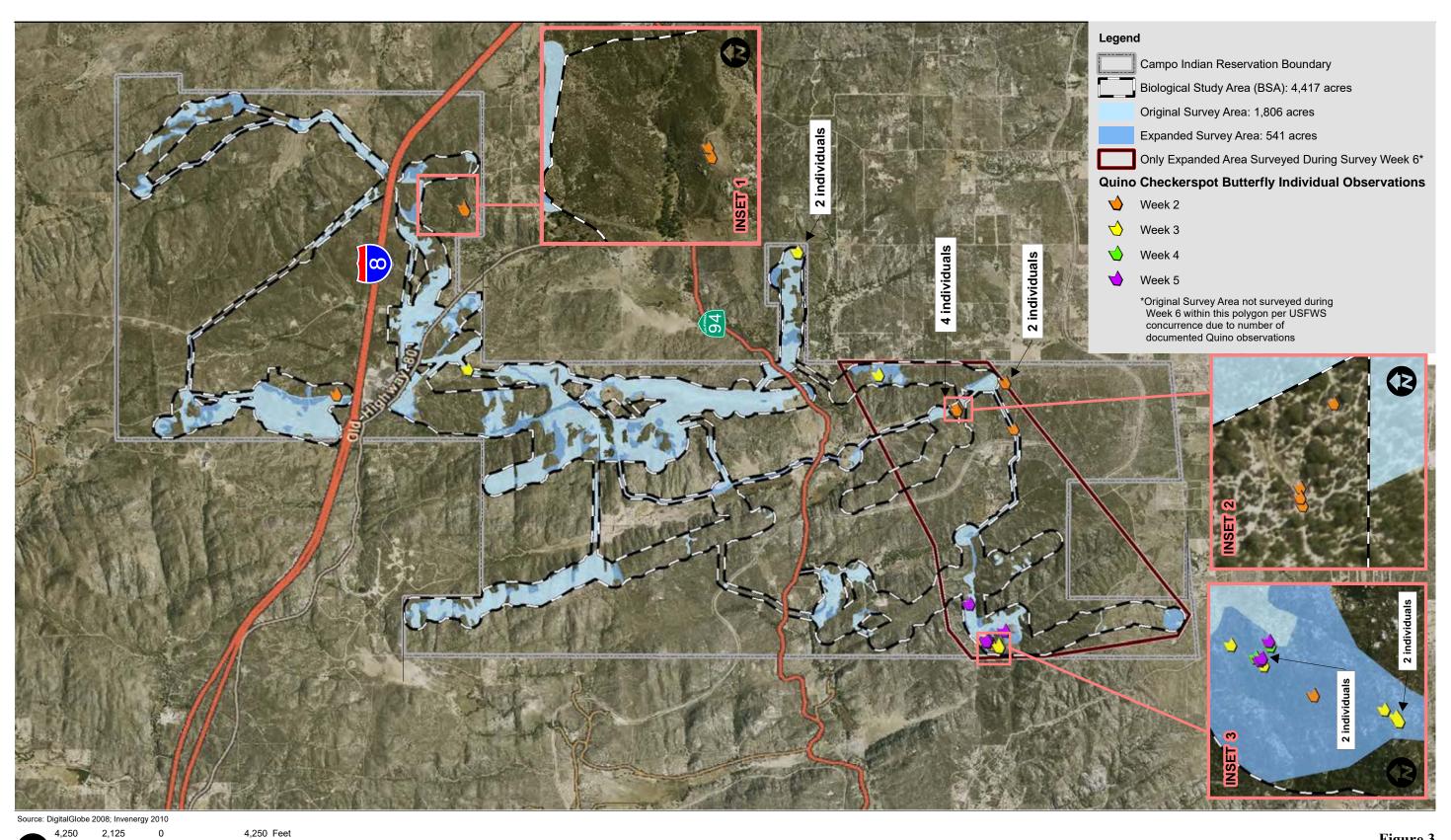
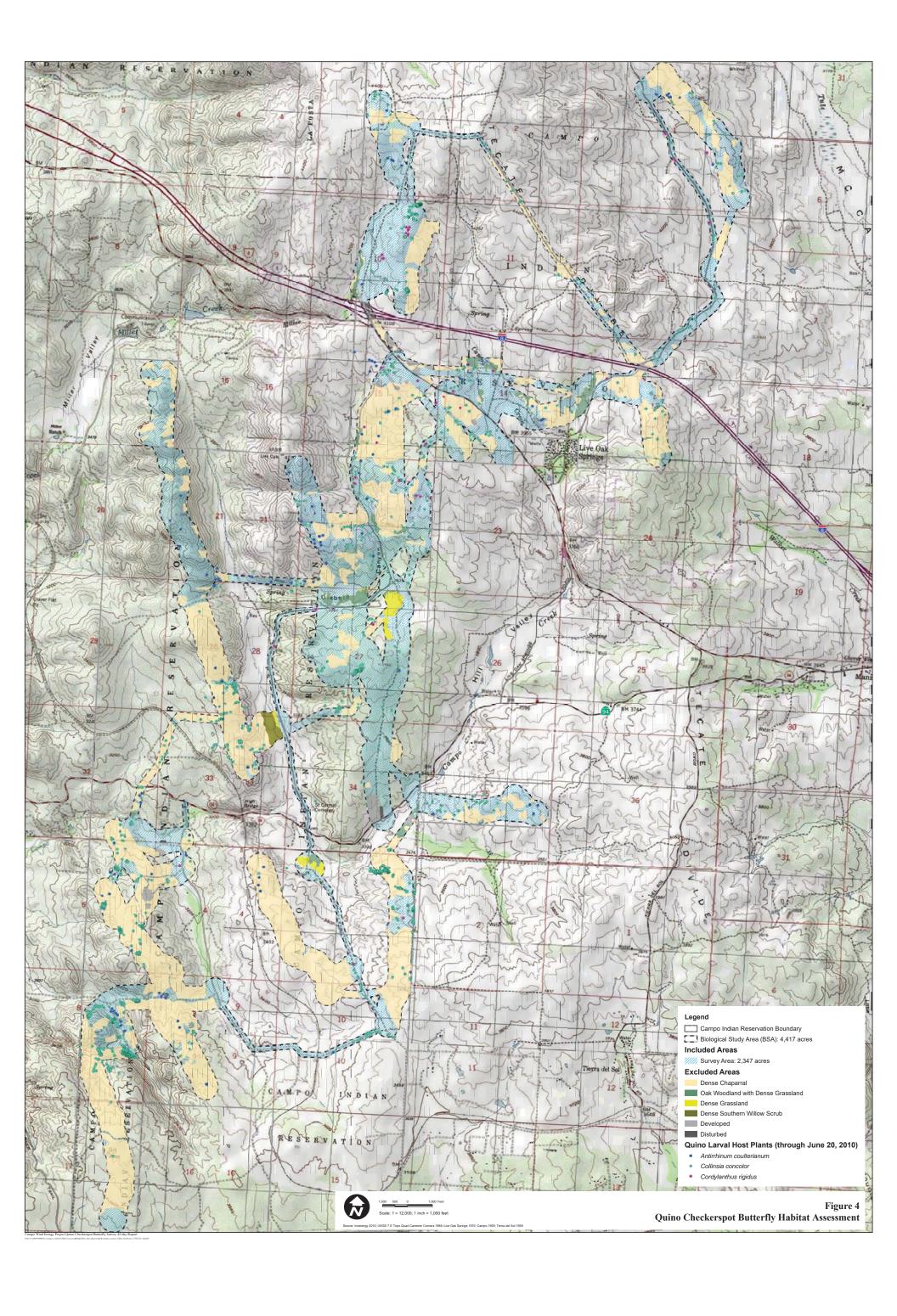
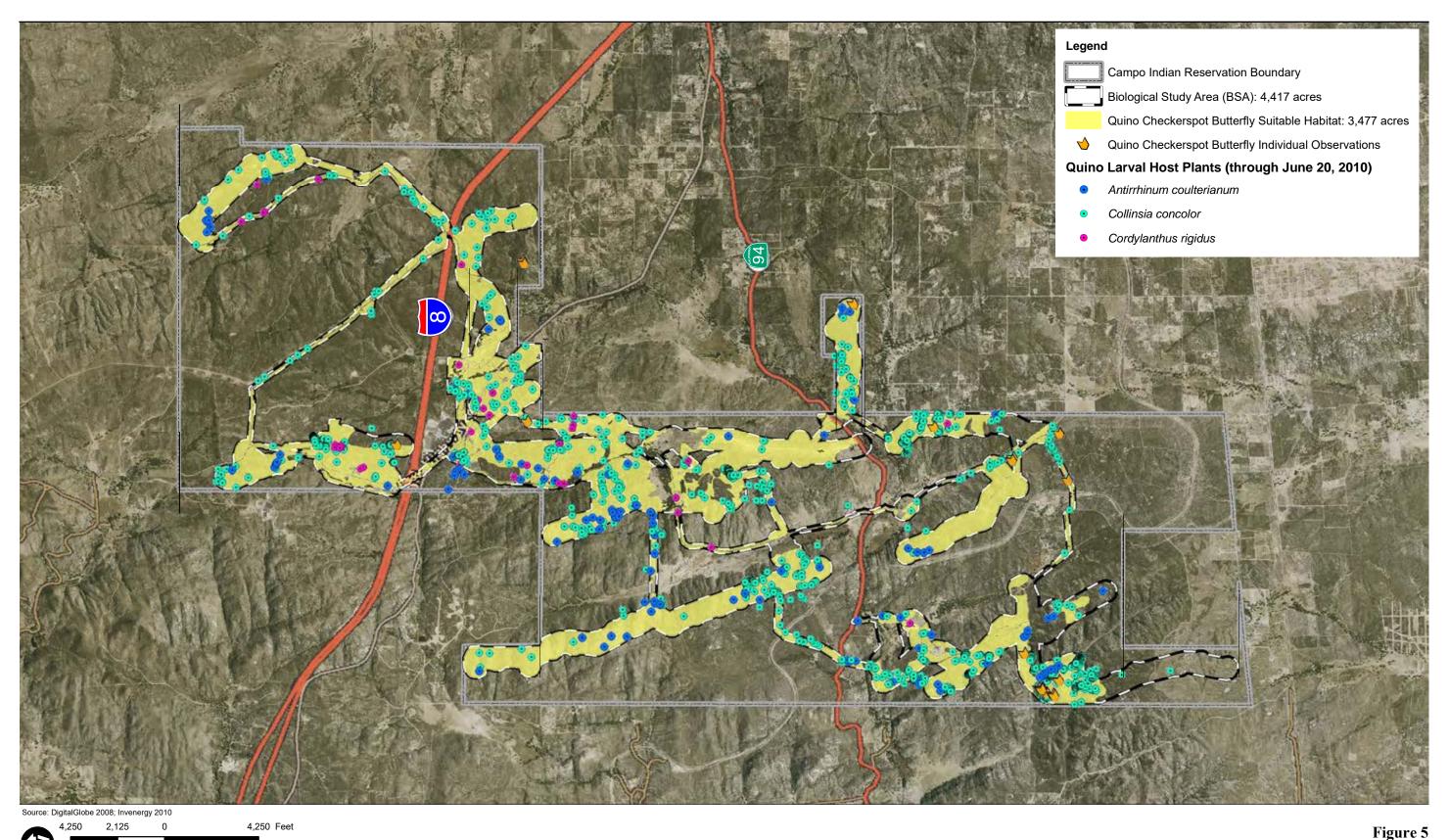


Figure 3 **Quino Checkerspot Butterfly Survey Area and Detections**

Scale: 1 = 51,000; 1 inch = 4,250 feet





APPENDIX A

DAILY WEATHER CONDITIONS FOR FOCUSED QUINO SURVEYS ON CAMPO WIND ENERGY PROJECT

APPENDIX A DAILY WEATHER CONDITIONS FOR FOCUSED QUINO SURVEYS ON CAMPO WIND ENERGY PROJECT

Date	Survey Week	Personnel	Time	Temperature (°F)	Wind Speed Average/ Maximum (mph)	Cloud Cover (%)	General Sky Condition
3/22/2010	1	Pigniolo	1030	61	0/2	20	patchy
3/22/2010	1	Pigniolo	1130	61	2/6	60	overcast
3/22/2010	1	Pigniolo	1230	63	2/6	85	overcast
3/22/2010	1	Pigniolo	1330	57	2/6	95	overcast
3/22/2010	1	Pigniolo	1400	58	2/6	100	overcast
3/22/2010	1	Marquez	1015	66.8	3.4/6.2	10	patchy
3/22/2010	1	Marquez	1140	67.2	0.6/1.6	60	patchy
3/22/2010	1	Marquez	1300	65.5	4.7/8.7	100	overcast
3/22/2010	1	Marquez	1400	63.8	2.1/4.8	100	overcast
3/22/2010	1	Marquez	1425	62.9	5.4/9.9	100	overcast
3/22/2010	1	Heath	1000	61	8/9	10	patchy
3/22/2010	1	Heath	1115	63	7.2/10.5	25	patchy
3/22/2010	1	Heath	1200	63	3.5/6.5	75	patchy
3/22/2010	1	Heath	1300	62	3.5/6.5	95	overcast
3/22/2010	1	Heath	1400	58.5	5.6/9.9	100	overcast
3/22/2010	1	Lohstroh	920	61	0/5	10	clear
3/22/2010	1	Lohstroh	1000	64	0/3	20	patchy
3/22/2010	1	Lohstroh	1100	61	3/5	40	patchy
3/22/2010	1	Lohstroh	1200	61	3/5	60	patchy
3/22/2010	1	Lohstroh	1300	60	3/5	100	overcast
3/22/2010	1	Lohstroh	1400	60	3/5	100	overcast
3/22/2010	1	Lohstroh	1445	60	3/5	100	overcast
3/22/2010	1	Faulkner	1000	65	2	30	patchy
3/22/2010	1	Faulkner	1100	68	3	50	patchy
3/22/2010	1	Faulkner	1200	68	5	70	patchy
3/22/2010	1	Faulkner	1300	65	6	100	overcast
3/22/2010	1	Faulkner	1400	64	6	100	overcast
3/22/2010	1	Faulkner	1500	63	2	100	overcast
3/22/2010	1	Faulkner	1600	59	13	100	overcast
3/22/2010	1	McMorran/Brodie	1315	66	2/4	90	overcast
3/22/2010	1	McMorran/Brodie	1415	64	8/12	90- 100	overcast
3/22/2010	1	McMorran/Brodie	1015	68	2/6	10	clear
3/22/2010	1	McMorran/Brodie	1100	66	8/12	30-40	patchy
3/22/2010	1	McMorran/Brodie	1220	68	4/10	70-80	patchy
3/22/2010	1	McMorran/Brodie	1315	66	4/6	80-90	overcast
3/24/2010	1	Heath	930	60	5.6/8.6	0	clear
3/24/2010	1	Heath	1030	63	3.6/7.2	0	clear
3/24/2010	1	Heath	1130	67	2.6/4.5	0	clear
3/24/2010	1	Heath	1300	69.5	2.6/6.9	0	clear
3/24/2010	1	Heath	1400	64.5	2.9/7.8	0	clear
3/24/2010	1	Heath	1500	70	3.0/6.4	0	clear
3/24/2010	1	Heath	1600	65	15	0	clear
3/24/2010	1	LaCoste	950	60	10/15	0	clear
3/24/2010	1	LaCoste	1640	65	10/15	5	clear

					Wind Speed		
				_	Average/	Cloud	
Doto	Survey Week	Doroonnol	Time	Temperature (°F)	Maximum	Cover (%)	General Sky Condition
Date 3/24/2010	1	Personnel Cummings	945	(F) 64	(mph) 4.9/10.1	(%)	clear
3/24/2010	1	Cummings	1100	70	7.6/10.9		clear
3/24/2010	1	Cummings	1300	70	3.6/4.4		patchy
3/24/2010	1	Cummings	1415	71	2.1/3.0		patchy
3/24/2010	1	Mulligan/Innecken	1034	65	3/5	5	clear
3/24/2010	1	Mulligan/Innecken	1305	68	3/5	20	patchy
3/24/2010	1	Cummings	1520	75	2.0/6.3	20	patchy
3/24/2010	1	Mulligan/Innecken	1412	72	2.0/0.3	20	patchy
3/24/2010	1	Mulligan/Innecken	1512	72	5/6	20	patchy
3/24/2010	1	Mulligan/Innecken	1630	70	3/5	20	patchy
3/24/2010	1		1520	75	2.0/6.3	20	patchy
3/24/2010	1	Cummings	1600	70	3.6/8.2		patchy
3/24/2010	1	Cummings Osborne	1121	70	1.0/3	0	clear
				72	2.8/5	0	
3/25/2010	1	Osborne	1140				clear
3/25/2010	1	Osborne	1215	60	6/10	0	clear
3/25/2010	1	Osborne	140	59	10/17	0	clear
3/25/2010	1	Osborne	410	61	1.7/4	0	clear
3/25/2010	1	Heath	1100	60	3.1/4.9	0	clear
3/25/2010	1	Heath	1220	61	7.2/10.3	0	clear
3/25/2010	1	Heath	1400	61	9.9/17.2	0	clear
3/25/2010	1	Heath	1500	61.5	5.5/14.7	0	clear
3/25/2010	1	Heath	1620	60.5	14.2/21.3	0	clear
3/25/2010	1	Faulkner	1300	63	7	0	clear
3/25/2010	1	Faulkner	1400	60	9	0	clear
3/25/2010	1	Faulkner	1400	60	9	0	clear
3/25/2010	1	Faulkner	1600	59	8	0	clear
3/25/2010	1	Faulkner	1100	60	7	0	clear
3/25/2010	1	Faulkner	1200	61	6	0	clear
3/25/2010	1	Faulkner	1300	63	7	0	clear
3/25/2010	1	Flietner/Innecken	1130	63	4/8	0	clear
3/25/2010	1	Flietner/Innecken	12	63	4/8	0	clear
3/25/2010	1	Flietner/Innecken	1220	70	0/3	0	clear
3/25/2010	1	Flietner/Innecken	1340	72	0/5	0	clear
3/25/2010	1	Flietner/Innecken	1410	72	3/7	0	haze
3/25/2010	1	Flietner/Innecken	1645	61	2/4	0	clear
3/26/2010	1	Flietner/Innecken	1020	63	0/2	0	clear
3/26/2010	1	Flietner/Innecken	1240	65 72	0/2	0	clear
3/26/2010	1	Flietner/Innecken	1450		0/2	0	clear
3/26/2010	1	Heath	1000	57	1.2/2.4	0	clear
3/26/2010	1	Heath	1130	64.7	0/2	0	clear
3/26/2010	1	Heath	1300	64.9	3.0/4.3	0	clear
3/26/2010	1	Heath	1430	67	2.1/4.1	0	clear
3/26/2010	1	Heath	1630	67.8	6.0/8.6	0	clear
3/27/2010	1	Faulkner	900	56	12	0	not available
3/27/2010	1	Faulkner	1000	56	10	0	not available
3/27/2010	1	Faulkner	1100	67	11	0	not available
3/27/2010	1	Faulkner	1200	63	7	0	not available
3/27/2010	1	Faulkner	1300	61	13	0	not available
3/29/2010	1	Brodie	1230	72	0/2	20	clear/patchy
3/29/2010	1	Brodie	13445	73	2/4	20-30	patchy

					Wind Speed		
	_			_	Average/	Cloud	
Dete	Survey	D	T	Temperature	Maximum	Cover	General Sky
Date	Week	Personnel	Time	(°F)	(mph)	(%)	Condition
3/29/2010	1	Brodie	1445	72	2/4	10-20	overcast
3/29/2010	1	Brodie	1600	70	4/6	0	clear
3/29/2010	1	Brodie	930	64	0/2	0	clear
3/29/2010	1	Brodie	1040	68	0/2	0	clear
3/29/2010	1	Brodie	1130	70	0/2	10	clear
3/29/2010	1	Brodie	1215	72	0/2	20	clear
3/29/2010	1	Heath	900	69.2	0.8/1.6	0	clear
3/29/2010	1	Heath	1100	73.1	2.9/5.8	0	clear
3/29/2010	1	Heath	1200	72.2	3.0/5.6	0	clear
3/29/2010	1	Heath	1330	77	2.3/5.3	0	patchy
3/29/2010	1	Heath	1600	72	5.7/14.9	0	clear
3/29/2010	1	Powell	930	68	1/5	0	clear
3/29/2010	1	Powell	1100	75	5/7	0	clear
3/29/2010	1	Powell	1200	79	4/8	0	patchy
3/29/2010	1	Powell	1300	77	7/11	0	patchy
3/29/2010	1	Powell	1400	80	6/10	0	patchy
3/29/2010	1	Powell	1500	76	6/12	0	patchy
3/29/2010	1	Powell	1620	75	5/10	0	clear
3/29/2010	1	Pigniolo/Fisher	915	60	0	0	clear
3/29/2010	1	Pigniolo/Fisher	1015	60	0	0	clear
3/29/2010	1	Pigniolo/Fisher	1115	76	0/5	0	clear
3/29/2010	1	Pigniolo/Fisher	1215	78	0/6	20	patchy
3/29/2010	1	Pigniolo/Fisher	1315	79	0/6	40	patchy
3/29/2010	1	Pigniolo/Fisher	1415	81	2/7	10	clear
3/29/2010	1	Pigniolo/Fisher	1515	74	2/5	5	clear
3/29/2010	1	Faulkner	900	69	1	0	clear
3/29/2010	1	Faulkner	1000	73	1	0	clear
3/29/2010	1	Faulkner	1100	78	1	0	clear
3/29/2010	1	Faulkner	1200	81	1	0	patchy
3/29/2010	1	Faulkner	1300	83	5	50	patchy
3/29/2010	1	Faulkner	1400	81	2	50	patchy
3/29/2010	1	Faulkner	1500	81	5	0	clear
3/29/2010	1	Faulkner	1500	81	5	0	clear
3/29/2010	1	Faulkner	1600	62	15	0	clear
3/30/2010	1	Mulligan	1040	64	3/6	5	clear
3/30/2010	1	Mulligan	1205	73	4/6	0	clear
3/30/2010	1	Mulligan	1335	73	4/7	0	clear
3/30/2010	1	Powell	1235	67	8/11	0	clear
3/30/2010	1	Powell	1330	72	4/7	0	clear
3/30/2010	1	Powell	1430	68	7/11	0	clear
3/30/2010	1	Powell	1530	70	8/12	0	clear
3/30/2010	1	Powell	1625	65	5/9	0	clear
3/30/2010	1	Heath	1030	63.5	4.5/7.2	10	clear
3/30/2010	1	Heath	1230	66	8.7/12.4	20	clear
3/30/2010	1	Heath	1430	64.7	15.9/19.6	10	clear
3/30/2010	1	Heath	1600	60	15.0	10	clear
3/30/2010	1	Powell	1030	61	4/8	10	patchy
3/30/2010	1	Powell	1200	70	8/10	0	clear
3/30/2010	1	Lohstroh	1040	61.4	5/8	10	clear
3/30/2010	1	Lohstroh	1140	65	6/10	0	clear

Date Week Personnel Time Temperature Maximum Code Condition 3/30/2010 1					Wind Speed		
Date Week Personnel Time (*F) (mph) (%) Condition 3/30/2010 1 Lohstroh 1240 67 4/7 0 clear 3/30/2010 1 Lohstroh 1400 69 6/8 0 clear 3/30/2010 1 Lohstroh 1600 64 3/7 0 clear 3/30/2010 1 Lohstroh 1600 64 3/7 0 clear 3/30/2010 1 Lohstroh 1600 64 3/7 0 clear 3/30/2010 1 Lohstroh 1610 65 5/10 0 clear 4/2/2010 1 Flietner 1045 63 0/2 0 clear 4/2/2010 1 Flietner 1420 75 0/2 0 clear 4/2/2010 1 Flietner 1635 68 2/5 10 clear 4/2/2010 1 Flietner 1635 68 2/5 10 clear 4/2/2010 1 Powell/McMorran 1050 59 8/12 0 clear 4/2/2010 2 Powell/McMorran 1210 60 10/17 0 clear 4/2/2010 2 Powell/McMorran 1245 62 7/15 0 clear 4/2/2010 2 Powell/McMorran 1245 62 7/15 0 clear 4/2/2010 2 Powell/Innecken 1300 68 1/3 0 clear 4/2/2010 2 Powell/Innecken 1300 68 1/3 0 clear 4/2/2010 2 Powell/Innecken 1300 68 1/3 0 clear 4/2/2010 2 Powell/Innecken 1500 65 4/8 0 clear 4/2/2010 2 Powell/Innecken 1500 65 4/8 0 clear 4/2/2010 2 Powell/Innecken 1500 65 4/8 0 clear 4/2/2010 2 Powell/Innecken 1500 68 3/3 0 clear 4/2/2010 2 Powell/Innecken 1500 68 3/8/4 0 clear 4/2/2010 2 Powell/Innecken 1500 68 3/8/4 0 clear 4/2/2010 2 Cummings 1245 68 3/8/4 0 clear 4/2/2010 2 Cummings 1245 68 3/8/4 0 clear 4/2/2010 2 Cummings 1245 68 3/8/4 0 clear 4/2/2010 2 Faulkner 1300 68 5 0 clear 4/2/2010 2 Faulkner 1500 69 4 0 clear 4/2/2010 2 Faulkner 1300 68 5 0 clear 4/2/2010 2 Faulkner 130				_ ,	Average/	Cloud	
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					Wind Speed		
				_ ,	Average/	Cloud	
Dete	Survey	Damaannal	T:	Temperature	Maximum	Cover	General Sky
Date 4/6/2010	Week 2	Personnel Faulkner	Time 1600	(°F) 63	(mph) 8	(%)	Condition clear
4/6/2010	2		1000	60	5/8	0	clear
4/6/2010	2	Lohstroh Lohstroh	1100	60	10/14	0	clear
4/6/2010	2	Lohstroh	1200	61	4/9	0	
4/6/2010	2	Lohstroh	1300	61	4/9	0	clear
4/6/2010	2			61	8/12	0	clear
	2	Lohstroh Lohstroh	1400	62	7/12	1	clear
4/6/2010	2		1445			0	clear
4/8/2010		Faulkner/Bergman	1500	78	2	0	clear
4/8/2010	2	Faulkner/Bergman	1600	78	5	0	clear
4/8/2010	2	Faulkner/Bergman	1000	68	5	0	clear
4/8/2010	2	Faulkner/Bergman	1100	69	6	0	clear
4/8/2010	2	Faulkner/Bergman	1200	72	7	0	clear
4/8/2010	2	Faulkner/Bergman	1300	77	0	0	clear
4/8/2010	2	Faulkner/Bergman	1400	78	5	0	clear
4/8/2010	2	Faulkner/Bergman	900	60	7	0	clear
4/8/2010	2	Faulkner/Bergman	1000	68	5	0	clear
4/8/2010	2	Osborne	914	59	2.5/5	0	clear
4/8/2010	2	Osborne	1120	69	1.7/2.8	0	clear
4/8/2010	2	Osborne	1400	72	0	0	clear
4/8/2010	2	Osborne	1625	74	0	0	clear
4/8/2010	2	Powell	1330	72	2/5	0	clear
4/8/2010	2	Powell	1435	75	0	0	clear
4/8/2010	2	Powell	1625	72	4/6	0	clear
4/8/2010	2	Powell	845	63	5/7	0	clear
4/8/2010	2	Powell	955	67	10/13	0	clear
4/8/2010	2	Powell	1130	71	3/7	0	clear
4/8/2010	2	Powell	1240	71	6/9	0	clear
4/8/2010	2	Powell	1310	74	5/9	0	clear
4/8/2010	2	Flietner	900	57	3/6	0	clear
4/8/2010	2	Flietner	930	61	3/6	0	clear
4/8/2010	2	Flietner	1620	70	0/2	0	clear
4/9/2010	2	Flietner/Bergman	1020	69	0	0	clear
4/9/2010	2	Flietner/Bergman	1235	73	0	0	clear
4/9/2010	2	Flietner/Bergman	1430	74	5/8	0	clear
4/9/2010	2	Flietner/Bergman	1550	73	3/6	0	clear
4/9/2010	2	Couffer	1430	74	3/5	0	clear
4/9/2010	2	Couffer	1500	73	1/4	0	clear
4/9/2010	2	Couffer	1600	72	1/6	0	clear
4/9/2010	2	Couffer	930	67	0/2	0	clear
4/9/2010	2	Couffer	1000	74	0/4	0	clear
4/9/2010	2	Couffer	1100	72	0/5	0	clear
4/9/2010	2	Couffer	1200	76	0/3	0	clear
4/9/2010	2	Couffer	1300	77	1/4	0	clear
4/9/2010	2	Couffer	1400	73	3/7	0	clear
4/13/2010	2	Lohstroh/Innecken	1040	62	2/5	0	clear
4/13/2010	2	Lohstroh/Innecken	1200	67	2/3	0	clear
4/13/2010	2	Lohstroh/Innecken	1300	64	0/3	0	clear
4/13/2010	2	Lohstroh/Innecken	1430	66	0/6	0	clear
4/13/2010	2	Lohstroh/Innecken	1520	62	3/8	30	
	2	Lohstroh/Innecken	_				patchy
4/13/2010		Lonstron/mnecken	1640	59	3/8	30	patchy

Date	Survey Week	Personnel	Time	Temperature (°F)	Wind Speed Average/ Maximum (mph)	Cloud Cover (%)	General Sky Condition
4/13/2010	2	Powell	1330	62	2/4	25	clear
4/13/2010	2	Powell	1440	61	4/7	25	clear
4/13/2010	2	Powell	1550	58	1/3	20	clear
4/13/2010	2	Powell	1030	64	0	15	clear
4/13/2010	2	Powell	1210	60	2/4	30	clear
4/13/2010	2	Faulkner	1100	48	3	0	clear
4/13/2010	2	Faulkner	1200	55	2	0	clear
4/13/2010	2	Faulkner	1300	58	2	5	clear
4/13/2010	2	Faulkner	1400	61	3	5	clear
4/13/2010	2	Faulkner	1500	55	8	10	clear
4/13/2010	2	Faulkner	1600	52	9	10	clear
4/13/2010	2	Couffer	1000	58	0/3	0	clear
4/13/2010	2	Couffer	1100	58	0/3	0	clear
4/13/2010	2	Couffer	1200	56	0/2	0	clear
4/13/2010	2	Couffer	1300	65	0/1	0	clear
4/13/2010	2	Couffer	1400	67	1/2	0	clear
4/13/2010	2	Couffer	1500	66	0/3	0	clear
4/13/2010	2	Couffer	1600	63	1/5	0	clear
4/14/2010	2	LaCoste	930	65	3/7	5	clear
4/14/2010	2	LaCoste	130	70	3/6	75	overcast
4/14/2010	2	LaCoste	230	67	4/8	90	overcast
4/14/2010	2	LaCoste	300	66	80	80	overcast
4/14/2010	2	Cummings	945	60.3	1/2.2	20	patchy
4/14/2010	2	Cummings	1125	98.7	3.2/3.8	25	patchy
4/14/2010	2	Cummings	1345	70	2.6/3.9	40	patchy
4/14/2010	2	Cummings	1420	77	2.6/6.2	70	patchy
4/14/2010	2	Cummings	1600	74	.8/1.9	80	patchy
4/14/2010	2	Cummings	1645	69	1.3/2.1	70	patchy
4/14/2010	2	Powell/Mulligan	1015	63	0/2	0	clear
4/14/2010	2	Powell/Mulligan	1205	64	0	0	clear
4/14/2010	2	Powell/Mulligan	1300	72	1/3	0	clear
4/14/2010	2	Powell/Mulligan	1430	60	7/10	75	
4/14/2010	2	Powell/Mulligan	1645	70	3/5	50	
4/14/2010	2	Powell/Mulligan	945	62	0/2	0	clear
4/14/2010	2	Powell/Mulligan	1005	65	0/2	0	clear
4/15/2010	2	Osborne	900	63	2/4	0	clear
4/15/2010	2	Osborne	1030	66	3.9/6	0	clear
4/15/2010	2	Osborne	1400	72	2.4/6	10	clear
4/15/2010	2	Osborne	1600	73	0	10	overcast
4/15/2010	2	Powell	900	61	8/11	0	clear
4/15/2010	2	Powell	1015	66	11/14	0	clear
4/15/2010	2	Powell	1125	68	7/11	0	clear
4/15/2010	2	Powell	1410	72	4/7	0	clear
4/15/2010	2	Faulkner	900	64	6	0	clear
4/15/2010	2	Faulkner	1000	67	3	0	clear
4/15/2010	2	Faulkner	1100	64	9	0	clear
4/15/2010	2	Couffer	900	67	1/5	0	clear
4/15/2010	2	Couffer	1000	68	1/8	0	clear
4/15/2010	2	Couffer	1100	71	0/7	0	clear
4/15/2010	2	Couffer	1200	71	0/8	0	clear

					Wind Speed		
					Average/	Cloud	
Dete	Survey	Damaanad	T:	Temperature	Maximum	Cover	General Sky
Date 4/15/2010	Week 2	Personnel Couffer	Time 1300	(° F) 70	(mph) 2/6	(%)	Condition clear
	2	Couller	1400	70	0/3	0 50	
4/15/2010 4/15/2010	2	Couffer	1500	71	1/4	90	patchy
4/16/2010	2	Couffer	900	67	0/3	0	overcast clear
4/16/2010	2	Couller	1300	60	2/5		clear
4/16/2010	2	Couffer	1100	70	0/3	0	clear
4/16/2010	2	Couffer	1200	73	0/3	0	clear
	2			73	1/4		
4/16/2010	2	Couffer	1300	74 76		0	clear
4/16/2010		Couffer	1400		0/3	0	clear
4/16/2010	2	Couffer	1500	73	2/5	0	clear
4/16/2010	2	Powell	1510	75	4/7	0	clear
4/16/2010	2	Powell	1700	70	3/6	0	clear
4/16/2010	2	Powell	945	60	2/4	0	clear
4/16/2010	2	Powell	1055	72	5/8	0	clear
4/16/2010	2	Powell	1200	78	10/13	0	clear
4/16/2010	2	Powell	1400	72	5/8	0	clear
4/16/2010	2	Powell	1445	72	3/5	0	clear
4/16/2010	2	Hendricks	915	59.5	4.4/8.2	0	clear
4/16/2010	2	Hendricks	1020	71.5	1.7/4.2	0	clear
4/16/2010	2	Hendricks	1150	72	1.2/2.5	0	clear
4/16/2010	2	Hendricks	1230	72	2.0/3.0	0	clear
4/16/2010	2	Hendricks	345	73.5	3.2/10.3	0	clear
4/16/2010	2	Hendricks	1515	73.7	1.4/4.2	0	clear
4/16/2010	2	Hendricks	1700	67.2	2.3/5.8	0	clear
4/16/2010	2	Hendricks	1545	61.3	4.5/8.7	0	clear
4/17/2010	2	Mulligan	900	67	0/3	80	overcast
4/17/2010	2	Mulligan	1000	70	0/4	100	overcast
4/17/2010	2	Mulligan	1245	79	1/5	100	overcast
4/17/2010	2	Couffer	900	67	0/4	100	overcast
4/17/2010	2	Couffer	1000	67	0/2	100	overcast
4/17/2010	2	Couffer	1100	70	0/3	100	overcast
4/17/2010	2	Couffer	1200	73	0/4	100	overcast
4/17/2010	2	Couffer	1300	75	0/5	100	overcast
4/17/2010	2	Couffer	1320	75	0/5	100	overcast
4/17/2010	2	Powell	900	66	9/11	90	overcast
4/17/2010	2	Powell	1010	72	6/8	60	overcast
4/17/2010	2	Powell	1110	72	7/9	50	overcast
4/17/2010	2	Powell	1125	72	7/9	50	overcast
4/17/2010	2	Powell	1300	70	6/9	50	overcast
4/17/2010	2	Mulligan	1300	79	2/8	100	overcast
4/17/2010	2	Mulligan	1600	80	2/4	100	overcast
4/18/2010	3	Gutierrez	900	76	0	80	overcast
4/18/2010	3	Gutierrez	1000	78	0	40	patchy
4/18/2010	3	Gutierrez	1100	82	0	40	patchy
4/18/2010	3	Gutierrez	1600	84	2	30	patchy
4/18/2010	3	Powell	830	66	0	0	clear
4/18/2010	3	Powell	1000	77	0	0	clear
4/18/2010	3	Powell	1130	80	2/4	0	clear
4/18/2010	3	Powell	1145	80	3/6	0	clear
4/18/2010	3	Powell	1330	78	4/7	0	clear

					Wind Speed		
				_	Average/	Cloud	
Dete	Survey	Damaanal	T:	Temperature	Maximum	Cover	General Sky
Date	Week	Personnel Powell	Time	(° F)	(mph) 4/7	(%)	Condition
4/18/2010 4/18/2010	3	Couffer	1430 844	74	0	0	clear
	3	Couffer	900	70	0	0	clear
4/18/2010 4/18/2010	3	Couffer	1000	75	0	0	clear
4/18/2010	3	Couffer	1100	75	0/2		clear
4/18/2010	3	Couffer	1200	78	0/3	0	clear
4/18/2010	3	Couffer	1300	82	0/3	0	clear clear
4/18/2010	3	Couffer	1400	80	0/4	0	clear
4/19/2010	3	Powell	1550	76	3/6	0	
4/19/2010	3	Powell	1635	70	6/9	0	clear
4/19/2010	3	Faulkner	1500	71		0	clear clear
4/19/2010	3	Faulkner	1630	69	<u>4</u> 7/8	0	clear
4/19/2010	3	LaCoste	1640	64	2/4	30	
4/19/2010	3	LaCoste	1215	62	5/10	5	patchy clear
	3	LaCoste		76		0	
4/19/2010	3		1415 1530	70	5/10 5/10	0	clear
4/19/2010	3	LaCoste	1045	65	5/10 4/7	40	clear
4/19/2010	3	Brodie/Bergman		72			patchy
4/19/2010	3	Brodie/Bergman	1145	74	4/8 2/5	10	clear
4/19/2010		Brodie/Bergman	1330			0	clear
4/19/2010	3	Brodie/Bergman	1445	75	2/5	0	clear
4/19/2010	3	Brodie/Bergman	1540	73	3/6	0	clear
4/19/2010	3	Brodie/Bergman	1200	73	3/6	0	clear
4/19/2010	3	Brodie/Bergman	1300	72	3/6	0	clear
4/19/2010	3	Brodie/Bergman	1330	74	2/5	0	clear
4/19/2010	3	Powell	1045	69 75	2/4 6/8	20	clear
4/19/2010	3	Powell	1215			0	clear
4/19/2010	3	Powell	1330	79 81	5/7 6/9	0	clear
4/19/2010	3	Powell Couffer	1500	69	0/6	45	clear
4/19/2010	3	Couffer	1100 1200	70	1/6	5	patchy
4/19/2010	3	Couffer	1300	75	0/5	5	clear clear
4/19/2010	3	Couffer		75	0/4	5	
4/19/2010 4/19/2010	3	Couffer	1400 1500	76	0/5	0	clear
		Couffer			0/6		clear
4/19/2010 4/19/2010	3	Couffer	1600 1630	75 75	0/3	0	clear clear
4/19/2010	3		1000	70		50	clear
4/19/2010	3	Faulkner Faulkner	1130	71	<u>4</u> 6	30	
4/19/2010	3	Faulkner	1200	73	5	0	patchy clear
4/19/2010	3	Faulkner	1330	76	3	0	clear
4/19/2010	3	Faulkner	1400	76	4	0	clear
4/20/2010	3	Couffer	945	65	1/5	0	clear
4/20/2010	3	Couffer	1000	64	2/6	0	clear
4/20/2010	3	Couffer	1100	68	2/8	5	clear
4/20/2010	3	Couffer	1200	68	2/5	5	clear
4/20/2010	3	Couffer	1300	70	0/4	5	clear
4/20/2010	3	Couffer	1400	70	0/4	10	patchy
4/20/2010	3	Couffer	1445	70	2/8	50	patchy
4/20/2010	3	Faulkner	900	59	3	30	clear
4/20/2010	3	Faulkner	1000	67	<u>3</u> 1		clear
4/20/2010	3	Faulkner	1100	63	9		patchy
7/20/2010	J	i adiniici	1100	00	J		patorry

					Wind Speed	011	
					Average/	Cloud	
	Survey		l	Temperature	Maximum	Cover	General Sky
Date	Week	Personnel	Time	(°F)	(mph)	(%)	Condition
4/20/2010	3	Faulkner	1200	64	7		patchy
4/20/2010	3	Faulkner	1300	65	9	30	patchy
4/20/2010	3	Faulkner	1400	63	10	50	patchy
4/20/2010	3	Faulkner	1500	62	9	40	patchy
4/20/2010	3	Lohstroh/Faulkner	945	65	2-6/12	40	clear
4/20/2010	3	Lohstroh/Faulkner	1045	65	4/10	40	clear
4/20/2010	3	Lohstroh/Faulkner	1200	67	4/8	20	patchy
4/20/2010	3	Lohstroh/Faulkner	1300	69	6-9/12	40	patchy
4/20/2010	3	Lohstroh/Faulkner	1400	64	6/12	40	patchy
4/20/2010	3	Lohstroh/Faulkner	1440	67	6/12	50	patchy
4/20/2010	3	Lohstroh/Faulkner	1545	62	8/15	50	patchy
4/20/2010	3	Mulligan	1030	65	2/6	20	patchy
4/20/2010	3	Mulligan	1200	65	4/8	30	patchy
4/20/2010	3	Mulligan	1400	64	8/13	50	patchy
4/20/2010	3	Mulligan	1600	66	4/10	50	patchy
4/20/2010	3	Powell	1230	66	7/10	0	clear
4/20/2010	3	Powell	950	64	4/6	0	clear
4/20/2010	3	Powell	1045	66	4/6	0	clear
4/20/2010	3	Powell	1100	66	4/6	0	clear
4/20/2010	3	Powell	1320	66	7/10	0	clear
4/20/2010	3	Powell	1500	67	8/11	10	patchy
4/20/2010	3	Powell	1615	62	9/14	10	patchy
4/23/2010	3	Powell	1250	58	7/10	10	patchy
4/23/2010	3	Powell	1350	63	8/10	10	patchy
4/23/2010	3	Powell	1505	65	7/10	15	patchy
4/23/2010	3	Powell	1625	60	5/10	10	patchy
4/23/2010	3	Faulkner	1100	59	4	0	clear
4/23/2010	3	Faulkner	1200	60	6	0	clear
4/23/2010	3	Faulkner	1300	61	9	0	clear
4/23/2010	3	Faulkner	1400	62	5	10	patchy
4/23/2010	3	Faulkner	1500	65	3	50	patchy
4/23/2010	3	Faulkner	1600	64	4	40	patchy
4/23/2010	3		1045	60	2/7	0	
4/23/2010	3	Couffer Couffer	1100	61	2/6	0	clear
	3	Couffer	1200	63	3/7		clear clear
4/23/2010		Couffer	_			0	
4/23/2010	3	Couller	1300	59	3/7	0	clear
4/23/2010	3		1400	61	4/9	0	clear
4/23/2010	3	Couffer	1415	59	4/9	0	clear
4/23/2010	3	Hendricks	1155	59.5	4.3/8.2	0	clear
4/23/2010	3	Hendricks	1320	62.1	4.3/12.1	0	clear
4/23/2010	3	Hendricks	1415	65.3	2.6/4.9	0	clear
4/23/2010	3	Hendricks	1510	61.5	8.0/15.1	10	clear
4/23/2010	3	Hendricks	1615	57.2	4.2/8.1	1	clear
4/24/2010	3	Powell	835	63	0	0	clear
4/24/2010	3	Powell	945	68	1/3	0	clear
4/24/2010	3	Powell	1130	77	3/6	0	clear
4/24/2010	3	Powell	1315	77	4/6	0	clear
4/24/2010	3	Powell	1340	79	3/5	0	clear
4/24/2010	3	Powell	1540	75	4/6	0	clear
4/24/2010	3	Couffer	1518	73	2/6	0	clear

Date	Survey Week	Personnel	Time	Temperature (°F)	Wind Speed Average/ Maximum (mph)	Cloud Cover (%)	General Sky Condition
4/24/2010	3	Couffer	1600	73	1/5	0	clear
4/24/2010	3	Couffer	1623	73	1/3	0	clear
4/24/2010	3	Couffer	1240	70	2/9	0	clear
4/24/2010	3	Couffer	1300	77	0/4	0	clear
4/24/2010	3	Couffer	1320	82	0/3	0	clear
4/24/2010	3	Couffer	1400	77	0/2	0	clear
4/24/2010	3	Couffer	1500	73	1/9	0	clear
4/24/2010	3	Couffer	900	66	0	0	clear
4/24/2010	3	Couffer	1000	70	0	0	clear
4/24/2010	3	Couffer	1100	73	0/3	0	clear
4/24/2010	3	Couffer	1200	71	0/3	0	clear
4/24/2010	3	Couffer	1210	71	0/3	0	clear
4/25/2010	3	Couffer	1150	80	0/4	0	clear
4/25/2010	3	Couffer	1200	80	0/4	0	clear
4/25/2010	3	Couffer	1300	85	0/1	0	clear
4/25/2010	3	Couffer	1400	78	0/4	0	clear
4/25/2010	3	Couffer	1500	75	3/7	0	clear
4/25/2010	3	Couffer	1515	75	3/7	0	clear
4/25/2010	3	Couffer	830	76	0	0	clear
4/25/2010	3	Couffer	900	74	0/1	0	clear
4/25/2010	3	Couffer	1000	77	0/1	0	clear
4/25/2010	3	Couffer	1100	78	0/3	0	clear
4/25/2010	3	Couffer	1130	79	0/3	0	clear
4/25/2010	3	Powell	1215	79	3/5	0	clear
4/25/2010	3	Powell	1410	77	5/7	0	clear
4/25/2010	3	Powell	1615	77	3/6	0	clear
4/25/2010	3	Powell	840	69	0	0	clear
4/25/2010	3	Powell	1010	74	3/5	0	clear
4/25/2010	3	Powell	1105	76	4/5	0	clear
4/26/2010	3	Brodie	930	69	0	0	clear
4/26/2010	3	Brodie	1030	72	0	0	clear
4/26/2010	3	Brodie	1130	76	2/4	0	clear
4/26/2010	3	Brodie	1235	75	0	0	clear
4/26/2010	3	Brodie	1340	76	0	0	clear
4/26/2010	3	Brodie	1520	74	0	0	clear
4/26/2010	3	Powell	830	74	0	0	clear
4/26/2010	3	Powell	1025	78	4/7	0	clear
4/26/2010	3	Powell	1130	83	2/4	0	clear
4/26/2010	3	Faulkner	1400	87	2	5	patchy
4/26/2010	3	Faulkner	1500	80	6	5	patchy
4/26/2010	3	Faulkner	1600	75	5	5	patchy
4/26/2010	3	Faulkner	900	75	0	0	clear
4/26/2010	3	Faulkner	1000	77	2	0	clear
4/26/2010	3	Faulkner	1100	77	4	0	clear
4/26/2010	3	Faulkner	1200	83	0	0	clear
	3		1300	83	0		
4/26/2010	3	Faulkner	1400	87	2	5 5	patchy
4/26/2010		Faulkner			0/2	+	patchy
4/26/2010	3	Couffer	1335	83	0/3	0	clear
4/26/2010		Couffer	1400	82		0	clear
4/26/2010	3	Couffer	1500	80	2/6	5	clear

					Wind Speed Average/	Cloud	
	Survey			Temperature	Maximum	Cover	General Sky
Date	Week	Personnel	Time	(°F)	(mph)	(%)	Condition
4/26/2010	3	Couffer	1600	79	2/6	5	clear
4/26/2010	3	Couffer	845	72	1/5	0	clear
4/26/2010	3	Couffer	900	73	0/3	0	clear
4/26/2010	3	Couffer	1000	72	0/3	0	clear
4/26/2010	3	Couffer	1100	80	0/6	0	clear
4/26/2010	3	Couffer	1130	82	0/2	0	clear
4/27/2010	4	Rink	912	70	1-2/5	2-5	patchy
4/27/2010	4	Rink	1030	70	2-3/5	3-5	patchy
4/27/2010	4	Rink	1130	71	2-3/5	5-7	patchy
4/27/2010	4	Rink	1230	73	3-4/5	10-12	patchy
4/27/2010	4	Couffer	1200	81	0/3	5	clear
4/27/2010	4	Couffer	1300	80	7/13	5	clear
4/27/2010	4	Couffer	1400	75	3/7	10	clear
4/27/2010	4	Couffer	1500	76	0/2	10	clear
4/27/2010	4	Couffer	1600	76	0/4	10	clear
4/27/2010	4	Couffer	848	72	0	0	clear
4/27/2010	4	Couffer	900	73	0/2	0	clear
4/27/2010	4	Couffer	1000	76	1/5	0	clear
4/27/2010	4	Couffer	1100	77	0/3	0	clear
4/27/2010	4	Powell	845	74	2/4	0	clear
4/27/2010	4	Powell	1115	77	5/8	0	clear
4/27/2010	4	Powell	1140	74	5/7	0	clear/patchy
4/27/2010	4	Powell	1345	72	6/9	0	clear
4/27/2010	4	Powell	1500	78	5/8	0	clear
4/27/2010	4	Powell	1555	73	7/10	0	clear
4/27/2010	4	Mulligan/Bergman	920	67	0/4	1	clear
4/27/2010	4	Mulligan/Bergman	1200	78	4/8	10	clear
4/27/2010	4	Mulligan/Bergman	1515	78	2/6	20	patchy
4/27/2010	4	Faulkner	900	65	1	0	clear
4/27/2010	4	Faulkner	1000	73	2	0	clear
4/27/2010	4	Faulkner	1100	73	4	0	clear
4/27/2010	4	Faulkner	1100	73	2	0	clear
4/27/2010	4	Faulkner	1200	77	2	0	clear
4/27/2010	4	Faulkner	1300	77	8	10	patchy
4/27/2010	4	Faulkner	1400	75	10	50	patchy
4/27/2010	4	Faulkner	1500	73	11	0	clear
4/30/2010	4	Couffer/Powell	1300	62	2/4	60	patchy
4/30/2010	4	Couffer/Powell	1400	61	2/7	50	patchy
4/30/2010	4	Couffer/Powell	1300	63	4/6	50	patchy
4/30/2010	4	Couffer/Powell	1405	61	4/7	50	clear/patchy
4/30/2010	4	Couffer/Powell	1550	55	5/9	75	patchy
4/30/2010	4	Faulkner	1100	63	2	30	patchy
4/30/2010	4	Faulkner	1200	65	1	40	patchy
4/30/2010	4	Faulkner	1300	67	5	50	overcast/drizzle
4/30/2010	4	Faulkner	1400	62	9	50	overcast/drizzle
4/30/2010	4	Hendricks/Bergman	1130	64.7	3.7/7	60	patchy
4/30/2010	4	Hendricks/Bergman	1215	57	4.9/8.8	80	overcast
4/30/2010	4	Hendricks/Bergman	1245	60.4	3.7/8.7	30	patchy
4/30/2010	4	Hendricks/Bergman	1350	67.6	5.1/7.5	40	patchy
4/30/2010	4	Hendricks/Bergman	1430	57.7	5.2/8.3	80	overcast

Date	Survey Week	Personnel	Time	Temperature (°F)	Wind Speed Average/ Maximum (mph)	Cloud Cover (%)	General Sky Condition
5/1/2010	4	Powell	1445	67	7/9	0	clear
5/1/2010	4	Powell	1605	65	6/7	0	clear
5/1/2010	4	Powell		62	4/6	0	clear
5/1/2010	4	Powell		6	5/7	0	clear
5/1/2010	4	Powell	1330	66	6/9	0	clear
5/1/2010	4	Powell	1425	67	6/8	0	clear
5/1/2010	4	Couffer/Fisher	930	63	0/3	0	clear
5/1/2010	4	Couffer/Fisher	1000	64	2/5	0	clear
5/1/2010	4	Couffer/Fisher	1100	67	0/4	5	clear
5/1/2010	4	Couffer/Fisher	1200	68	0/3	5	clear
5/1/2010	4	Couffer/Fisher	1300	72	0/5	5	clear
5/1/2010	4	Couffer/Fisher	1400	73	0/5	0	clear
5/1/2010	4	Couffer/Fisher	1500	68	2/5	0	clear
5/1/2010	4	Lohstroh	930	64	0/3	0	clear
5/1/2010	4	Lohstroh	1130	64	6/10	10	patchy
5/1/2010	4	Lohstroh	1300	65	5/13	5	patchy
5/1/2010	4	Lohstroh	1400	72	2/8	1	clear
5/1/2010	4	Lohstroh	1520	69	0/10	1	clear
5/1/2010	4	Lohstroh	1550	67	0/10	3	clear
5/1/2010	4	Mulligan	900	60	2/6	0	clear
5/1/2010	4	Mulligan	1200	66	4/10	40	patchy
5/1/2010	4	Mulligan	1300	67	8/12	25	patchy
5/1/2010	4	Mulligan	1530	37	6/8	25	patchy
5/2/2010	4	Powell	1055	59	4/6	0	clear
5/2/2010	4	Powell	1200	62	5/7	0	clear
5/2/2010	4	Powell	1230	67	4/6	0	clear
5/2/2010	4	Powell	1355	70	5/7	0	clear
5/2/2010	4	Powell	1615	72	4/7	0	clear
5/2/2010	4	Couffer	1020	60	0/3	0	clear
5/2/2010	4	Couffer	1100	66	0/3	0	clear
5/2/2010	4	Couffer	1200	64	0/7	0	clear
5/2/2010	4	Couffer	1300	73	0/3	0	clear
5/2/2010	4	Couffer	1400	76	0/2	0	clear
5/2/2010	4	Couffer	1500	74	0/6	0	clear
5/2/2010	4	Couffer	1600	71	2/8	0	clear
5/3/2010	4	Dittmer	900	68.9	2/4	0	clear
5/3/2010	4	Dittmer	1550	77	2/4	0	clear
5/3/2010	4	Pigniolo	1300	74	0/2	0	clear
5/3/2010	4	Pigniolo	1400	76	0/2	0	clear
5/3/2010	4	Pigniolo	1530	77	0/2	0	clear
5/3/2010	4	Pigniolo	915	60	2/6	0	clear
5/3/2010	4	Pigniolo	1015	66	2/6	0	clear
5/3/2010	4	Pigniolo	1115	69	2/6	0	clear
5/3/2010	4	Pigniolo	1215	69	2/4	0	clear
5/3/2010	4	Pigniolo	1245	68	0/4	0	clear
5/3/2010	4	Flietner	830	64	5/9	0	clear
5/3/2010	4	Flietner	1600	77	3/5	0	clear
5/3/2010	4	Faulkner	900	67	5	0	clear
5/3/2010	4	Faulkner	1000	71	4	0	clear
			_			+	
5/3/2010	4	Faulkner	1100	75	2	0	clear

Date	Survey Week	Personnel	Time	Temperature (°F)	Wind Speed Average/ Maximum (mph)	Cloud Cover (%)	General Sky Condition
5/3/2010	4	Faulkner	1200	76	3	0	clear
5/3/2010	4	Faulkner	1300	78	1	0	clear
5/3/2010	4	Faulkner	1400	78	2	0	clear
5/3/2010	4	Faulkner	1500	83	1	0	clear
5/3/2010	4	Faulkner	1600	79	4	0	clear
5/3/2010	4	Couffer	835	67	3/6	0	clear
5/3/2010	4	Couffer	900	70	3/8	0	clear
5/3/2010	4	Couffer	1000	72	3/10	0	clear
5/3/2010	4	Couffer	1100	74	4/8	0	clear
5/3/2010	4	Couffer	1200	77	0/3	0	clear
5/3/2010	4	Couffer	1300	80	0/4	0	clear
5/3/2010	4	Couffer	1400	81	0/4	0	clear
5/3/2010	4	Couffer	1500	80	0/3	0	clear
5/3/2010	4	Powell	830	65	7/9	0	clear
5/3/2010	4	Powell	950	67	7/10	0	clear
5/3/2010	4	Powell	1115	75	4/7	0	clear
5/3/2010	4	Powell	1430	78	5/8	0	clear
5/3/2010	4	Powell	1600	81	4/6	0	clear
5/3/2010	4	Powell	1640	79	7/11	0	clear
5/4/2010	4	Lohstroh	840	68	0/1	0	clear
5/4/2010	4	Lohstroh	1040	78	0/4	0	clear
5/4/2010	4	Lohstroh	1300	80	3/8	0	clear
5/4/2010	4	Lohstroh	1420	83	3/8	0	clear
5/4/2010	4	Lohstroh	1515	79	4/8	0	clear
5/4/2010	4	Powell	850	68	2/3	0	clear
5/4/2010	4	Powell	1020	71	6/7	0	clear
5/4/2010	4	Powell	1115	78	2	0	clear
5/4/2010	4	Powell	1155	75	7/12	0	clear
5/4/2010	4	Powell	1325	78	5/9	0	clear
5/4/2010	4	Powell	1520	76	9/13	0	clear
5/4/2010	4	Powell	1545	76	8/11	0	clear
5/4/2010	4	Powell	1120	78	8/12	0	clear
5/4/2010	4	Powell	1145	75	7/12	0	
5/4/2010	· ·	Faulkner	900	70	0	0	clear clear
5/4/2010	4		1000	74	5		
	4	Faulkner Faulkner	1100	77	4	0	clear
5/4/2010	4					0	clear
5/4/2010	4	Faulkner	1200	80	6/7	0	clear
5/4/2010	4	Faulkner Faulkner	1300 1400	83 80	8 7	0	clear
5/4/2010	4				7	0	clear
5/4/2010	4	Faulkner	1500	80	8	0	clear
5/4/2010	4	Faulkner	1600	78		0	clear
5/4/2010	4	Flietner	820	58	0/2	0	clear
5/4/2010	4	Flietner	850	66	2/4	0	clear
5/4/2010	4	Flietner	1030	75	3/5 0/3	0	clear
5/4/2010	4	Flietner	1100	77		0	clear
5/4/2010	4	Flietner	1630	83	7/10	0	clear
5/4/2010	4	Couffer	1100	78	3/5	0	clear
5/4/2010	4	Couffer	1200	76	7/14	0	clear
5/4/2010	4	Couffer	1300	81	0/6	0	clear
5/4/2010	4	Couffer	1400	81	3/8	0	clear

Date	Survey Week	Personnel	Time	Temperature (°F)	Wind Speed Average/ Maximum (mph)	Cloud Cover (%)	General Sky Condition
5/4/2010	4	Couffer	1500	81	0/5	0	clear
5/4/2010	4	Couffer	1530	80	0/5	0	clear
5/4/2010	4	Couffer	840	70	0/2	0	clear
5/4/2010	4	Couffer	900	69	0/2	0	clear
5/4/2010	4	Couffer	1000	73	0/3	0	clear
5/4/2010	4	Couffer	1015	73	0/2	0	clear
5/4/2010	4	Brodie	900	64	0	0	clear
5/4/2010	4	Brodie	1005	68	2/5	0	clear
5/4/2010	4	Brodie	1110	70	6/11	0	clear
5/4/2010	4	Brodie	1200	75	5/10	0	clear
5/4/2010	4	Brodie	1305	73	4/9	0	clear
5/4/2010	4	Brodie	1415	73	4/12	0	clear
5/4/2010	4	Brodie	1515	69	6/13	0	clear
5/4/2010	4	Gutierrez	1115	76	1.5/3	0	clear
5/4/2010	4	Gutierrez	1300	78	25/10	0	clear
5/4/2010	4	Gutierrez	900	72	0	0	clear
5/4/2010	4	Gutierrez	1000	76	0/2	0	clear
5/4/2010	4	Gutierrez	1100	78	2/5	0	clear
5/4/2010	4	Gutierrez	1310	78	2.5/10	0	clear
5/4/2010	4	Gutierrez	1500	78	2.5/10	0	clear
5/4/2010	4	Mulligan	1345	80	2/5	0	clear
5/4/2010	4	Mulligan	1530	80	3/6	0	clear
5/4/2010	4	Mulligan	900	75	0/2	0	clear
5/4/2010	4	Mulligan	1200	80	3/6	0	clear
5/4/2010	4	Mulligan	1330	80	4/6	0	clear
5/5/2010	4	Powell	1145	76	4/7	0	clear
5/5/2010	4	Powell	1400	78	3/5	0	clear
5/5/2010	4	Powell	1515	78	3/6	0	clear
5/5/2010	4	Powell	1615	78	5/8	0	clear
5/5/2010	4	Couffer	900	68	1/4	0	clear
5/5/2010	4	Couffer	1000	73	2/6	0	clear
5/5/2010	4	Couffer	1100	76	1/4	0	clear
5/5/2010	4	Couffer	1130	73	5/13	0	clear
5/5/2010	4	Brodie	1130	75	7/11	0	clear
5/5/2010	4	Brodie	1230	76	6/11	0	clear
5/5/2010	4	Brodie	1330	72	4/9	0	clear
5/5/2010	4	Brodie	1435	75	5/10	0	clear
5/5/2010	5	Marquez	915	70.7	2.6/4.3	0	clear
5/5/2010	5	Marquez	1015	69	2.1/4.4	0	clear
5/5/2010	5	Marquez	1140	72	3.8/5.4	0	clear
5/5/2010	5	Marquez	1255	75.5	5.3/6.8	0	clear
5/5/2010	5	Marquez	1355	75.1	6.2/8.5	0	clear
5/5/2010	5	Marquez	1455	74.9	7.6/9.8	0	clear
5/5/2010	5	Brodie	900	62	3/7	0	clear
5/5/2010	5	Brodie	1015	69	3/9	0	clear
5/5/2010	5	Brodie	1100	72	4/10	0	clear
5/5/2010	5	Mulligan	900	76	4	0	clear
5/5/2010	5	Mulligan	1200	80	6/10	3	clear
5/5/2010	5	Mulligan	1500	81	5/9	5	clear
5/5/2010	5	Osborne	906	70	0	0	clear
3/3/2010	J	Canollic	900	10	ı	U	Ulcai

Date	Survey Week	Personnel	Time	Temperature (°F)	Wind Speed Average/ Maximum (mph)	Cloud Cover (%)	General Sky Condition
5/5/2010	5	Osborne	1015	77	1.5/5.8	0	clear
5/5/2010	5	Osborne	1340	72	8.5/14	0	clear
5/5/2010	5	Osborne	1557	71	9.9/14.7	0	clear
5/5/2010	5	Couffer	1200	82	1/7	0	clear
5/5/2010	5	Couffer	1300	77	2/10	0	clear
5/5/2010	5	Couffer	1400	78	3/10	0	clear
5/5/2010	5	Couffer	1500	78	3/10	0	clear
5/5/2010	5	Couffer	1548	77	3/13	5	clear
5/5/2010	5	Powell	845	72	3/5	0	clear
5/5/2010	5	Powell	1015	72	5/6	0	clear
5/5/2010	5	Powell	1120	73	9/13	0	clear
5/5/2010	5	LaCoste	845	64	3/6	0	clear
5/5/2010	5	LaCoste	1100	71	4/8	0	clear
5/5/2010	5	LaCoste	1330	72	8/12	0	clear
5/5/2010	5	LaCoste	1430	76	6/10	0	clear
5/5/2010	5	Osborne	905	67	1.8/4.4	0	clear
5/5/2010	5	Osborne	1030	71	1.5/4.4	0	clear
5/5/2010	5	Osborne	1302	73	3.7/13.5	0	clear
5/5/2010	5	Osborne	1502	75	4.3/9.3	0	clear
5/5/2010	5	Osborne	1555	74	4.3/9.3	0	clear
5/6/2010	5	Powell	830	60	2/4	0	
	5	Powell	945	73			clear
5/6/2010					1/3	0	clear
5/6/2010	5	Powell	1010	74	3/5	0	clear
5/6/2010	5	Powell	1215	78	6/8	0	clear
5/6/2010	5	Powell	1430	76	4/6	0	clear
5/6/2010	5	Powell	1515	77	7/9	0	clear
5/6/2010	5	Brodie	1345	75	3/5	0	clear
5/6/2010	5	Brodie	1500	74	3/6	0	clear
5/6/2010	5	Brodie	1540	73	3/7	0	clear
5/6/2010	5	Couffer	830	69	0	0	clear
5/6/2010	5	Couffer	900	70	1/3	0	clear
5/6/2010	5	Couffer	1000	71	1/3	0	clear
5/6/2010	5	Couffer	1100	73	1/5	0	clear
5/6/2010	5	Couffer	1200	76	0/5	0	clear
5/6/2010	5	Couffer	1300	81	0/4	0	clear
5/6/2010	5	Couffer	1400	83	0/3	0	clear
5/6/2010	5	Couffer	1500	77	1/5	0	clear
5/6/2010	5	Brodie	930	69	2/5	0	clear
5/6/2010	5	Brodie	1100	73	4/7	0	clear
5/6/2010	5	Brodie	1230	75	3/5	0	clear
5/6/2010	5	Brodie	1315	75	4/7	0	clear
5/6/2010	5	Mulligan	900	62	4/7	0	clear
5/6/2010	5	Mulligan	1200	72	3/6	0	clear
5/6/2010	5	Mulligan	1430	75	4/8	0	clear
5/7/2010	5	Mulligan	900	65	6/10	0	clear
5/7/2010	5	Mulligan	1200	74	0/4	0	clear
5/7/2010	5	Mulligan	1245	76	2/4	0	clear
5/7/2010	5	Mulligan	1300	79	2/4	0	clear
5/7/2010	5	Mulligan	1530	82	2/5	0	clear
5/7/2010	5	Faulkner	1300	80	3	0	clear

Date	Survey Week	Personnel	Time	Temperature (°F)	Wind Speed Average/ Maximum (mph)	Cloud Cover (%)	General Sky Condition
5/7/2010	5	Faulkner	1400	80	4	O O	clear
5/7/2010	5	Faulkner	1500	80	3	0	clear
5/7/2010	5	Faulkner	1600	78	6	0	clear
5/7/2010	5	Faulkner	1100	76	6	0	clear
5/7/2010	5	Faulkner	1200	80	3	0	clear
5/7/2010	5	Faulkner	1300	80	3	0	clear
5/7/2010	5	Faulkner	900	69	03	0	clear
5/7/2010	5	Faulkner	1000	72	7	0	clear
5/7/2010	5	Faulkner	1100	76	6	0	clear
5/7/2010	5	Couffer	838	72	0/7	0	clear
5/7/2010	5	Couffer	900	73	0/8	0	clear
5/7/2010	5	Couffer	1000	75	0/8	0	clear
5/7/2010	5	Couffer	1100	76	0/6	0	clear
5/7/2010	5	Couffer	1200	83	0/4	0	clear
5/7/2010	5	Couffer	1300	88	0/2	0	clear
5/7/2010	5	Couffer	1400	80	1/6	0	clear
5/7/2010	5	Couffer	1500	84	1/4	0	clear
5/7/2010	5	Powell	1345	79	5/7	0	clear
5/7/2010	5	Powell	1455	78	6/9	0	clear
5/7/2010	5	Powell	845	71	5/6	0	clear
5/7/2010	5	Powell	1000	75	6/8	0	clear
5/7/2010	5	Powell	1245	78	5/8	0	clear
5/7/2010	5	Powell	1335	78	4/6	0	clear
5/8/2010	5	Couffer/McMorran	1215	79	4/11	0	clear
5/8/2010	5	Couffer/McMorran	1300	77	2/6	0	clear
5/8/2010	5	Couffer/McMorran	1400	78	4/14	0	clear
5/8/2010	5	Couffer/McMorran	1500	79	4/9	0	clear
5/8/2010	5	Couffer/McMorran	1520	78	2/7	0	clear
5/8/2010	5	Couffer/McMorran	845	66	0/3	0	clear
5/8/2010	5	Couffer/McMorran	900	71	0/3	0	clear
5/8/2010	5	Couffer/McMorran	1000	72	1/4	0	clear
5/8/2010	5	Couffer/McMorran	1100	72	1/4	0	clear
5/8/2010	5	Couffer/McMorran	1200	74	4/9	0	clear
5/8/2010	5	Powell	830	63	4/6	0	clear
5/8/2010	5	Powell	1025	71	7/8	0	clear
5/8/2010	5	Powell	1210	71	8/12	0	clear
5/8/2010	5	Powell	1430	76	8/11	0	clear
5/8/2010	5	Powell	1515	77	11/14	0	clear
5/8/2010	5	Powell	1520	78	5/7	0	clear
5/8/2010	5	Powell	1620	75	6/9	0	clear
5/11/2010	5	Mulligan	1330	74	2/4	5	clear
5/11/2010	5	Mulligan	1545	74	3/6	0	clear
5/11/2010	5	Mulligan	900	65	0/2	0	clear
5/11/2010	5	Mulligan	1110	75	0/5	0	clear
5/11/2010	5	Mulligan	1300	76	2/5	3	clear
5/12/2010	6	Powell	915	67	4/6	0	clear
5/12/2010	6	Powell	1110	71	5/8	0	clear
5/12/2010	6	Powell	1340	75	4/5	0	clear
5/12/2010	6	Powell	1600	72	6/8	0	clear
5/12/2010	6	Brodie	1100	67	0	0	clear

Date	Survey Week	Personnel	Time	Temperature (°F)	Wind Speed Average/ Maximum (mph)	Cloud Cover (%)	General Sky Condition
5/12/2010	6	Brodie	1220	70	0	0	clear
5/12/2010	6	Brodie	1415	70	0/2	0	clear
5/12/2010	6	Brodie	900	61	0	0	clear
5/12/2010	6	Brodie	1010	65	0	0	clear
5/12/2010	6	Brodie	1100	67	0	0	clear
5/12/2010	6	Brodie	1415	70	0	0	clear
5/12/2010	6	Brodie	1435	71	0/2	0	clear
5/12/2010	6	Brodie	1445	71	2/5	0	clear
5/12/2010	6	Brodie	1600	69	2/6	0	clear
5/12/2010	6	Marquez	1045	71.4	1.2/1.7	0	clear
5/12/2010	6	Marquez	1240	76.3	1.6/4.6	0	clear
5/12/2010	6	Marquez	1400	75.8	2.1/5.4	0	clear
5/12/2010	6	Marquez	1520	70.5	2.8/4.6	0	clear
5/12/2010	6	Marquez	835	65.3	.5/1.2	0	clear
5/12/2010	6	Marquez	945	69	2.2/2.8	0	clear
5/12/2010	6	Marquez	1045	76.3	2.3/5.4	0	clear
5/12/2010	6	Lohstroh	1330	76	3/7	0	clear
5/12/2010	6	Lohstroh	1430	74	3/8	0	clear
5/12/2010	6	Lohstroh	1530	73	3/12	0	clear
5/12/2010	6	Lohstroh	845	63	0/1	0	clear
5/12/2010	6	Lohstroh	1210	74	0/3	0	clear
5/12/2010	6	Lohstroh	1300	79	0/4	0	clear
5/12/2010	6	Couffer	845	65	0	0	clear
5/12/2010	6	Couffer	857	67	0/1	0	clear
5/12/2010	6	Couffer	1400	72	3/5	0	clear
5/12/2010	6	Couffer	1500	73	3/11	0	clear
5/12/2010	6	Couffer	900	67	0/1	0	clear
5/12/2010	6	Couffer	1000	71	0/1	0	clear
5/12/2010	6	Couffer	1100	72	1/4	0	clear
5/12/2010	6	Couffer	1200	74	1/3	0	clear
5/12/2010	6	Couffer	1300	73	1/4	0	clear
5/12/2010	6	Couffer	1345	72	3/5	0	clear
5/12/2010	6	Faulkner	1200	79	4	0	clear
5/12/2010	6	Faulkner	1300	79	4	10	clear
5/12/2010	6	Faulkner	1400	79	4	10	clear
5/12/2010	6	Faulkner	1500	76	7	0	clear
5/12/2010	6	Faulkner	1600	76	5	0	clear
5/12/2010	6	Faulkner	900	68	1	0	clear
		Faulkner	1000	75	1		
5/12/2010 5/12/2010	6	Faulkner Faulkner	1100	76	0	0	clear clear
5/12/2010	6	Faulkner	1200	76	4	0	clear
			900	67	2/5	1	
5/13/2010	6	Mulligan	1115	78	0/4	10	clear
	6	Mulligan Mulligan	1515	78	3/6	15	clear
5/13/2010	6	b					clear
5/13/2010	6	Brodie	1230	72	4/8	10-20	clear
5/13/2010	6	Brodie	1330	74	2/8	10-20	clear
5/13/2010	6	Brodie	1600	70	3/6	10-20	clear
5/13/2010	6	Lohstroh	940	74	0/1	0	clear
5/13/2010	6	Lohstroh	1200	78	3/5	20	patchy
5/13/2010	6	Lohstroh	1300	80	0/3	20	patchy

					Wind Speed Average/	Cloud	
	Survey			Temperature	Maximum	Cover	General Sky
Date	Week	Personnel	Time	(°F)	(mph)	(%)	Condition
5/13/2010	6	Lohstroh	1400	81	0/3	30	patchy
5/13/2010	6	Lohstroh	1530	82	0/9	10	patchy
5/13/2010	6	Lohstroh	850	69	0/1	0	clear
5/13/2010	6	Lohstroh	930	72	0/1	0	clear
5/13/2010	6	Brodie	850	60	0	0	clear
5/13/2010	6	Brodie	1015	65	0	0	clear
5/13/2010	6	Brodie	1145	69	2/6	10	clear
5/14/2010	6	Powell	1325	85	4/6	0	clear
5/14/2010	6	Powell	1435	80	5/7	5	clear
5/14/2010	6	Powell	1530	75	6/9	10	clear
5/14/2010	6	Powell	1600	80	4/5	5	clear
5/14/2010	6	Powell	1325	85	4/6	0	clear
5/14/2010	6	Powell	1435	80	5/7	5	clear
5/14/2010	6	Powell	1530	75	6/9	10	clear
5/14/2010	6	Powell	1600	80	4/5	5	clear
5/14/2010	6	Couffer	1030	77	0/3	0	clear
5/14/2010	6	Couffer	1100	78	0/5	0	clear
5/14/2010	6	Couffer	1200	80	0/3	0	clear
5/14/2010	6	Couffer	1230	79	0/3	0	clear
5/14/2010	6	Couffer	1330	74	0/5	0	clear
5/14/2010	6	Couffer	1400	73	0/3	5	clear
5/14/2010	6	Couffer	1500	75	0/3	20	clear
5/14/2010	6	Couffer	1600	75	0/1	20	clear
5/14/2010	6	Couffer	1621	77	0/2	20	clear
5/14/2010	6	Couffer	851	75	0/2	0	clear
5/14/2010	6	Couffer	900	75	0	0	clear
5/14/2010	6	Couffer	1000	81	0/2	0	clear
5/14/2010	6	Mulligan	900	70	2/7	0	clear
5/14/2010	6	Mulligan	1215	75	4/6	10	clear
5/14/2010	6	Mulligan	1515	79	4/6	20	clear
5/14/2010	6	Lohstroh	850	70	0/4	0	clear
5/14/2010	6	Lohstroh	1015	75	0/4	0	clear
5/14/2010	6	Lohstroh	1140	79	0/7	0	clear
5/14/2010	6	Lohstroh	1320	76	3/6	20	patchy
5/14/2010	6	Lohstroh	1430	79	3/5	20	patchy
5/14/2010	6	Lohstroh	1500	78	0/2	30	patchy
5/14/2010	6	Faulkner	1300	74	0	0	clear
5/14/2010	6	Faulkner	1400	75	4	0	clear
5/14/2010	6	Faulkner	1500	77	2	30	patchy
5/14/2010	6	Faulkner	1600	74	2	50	patchy
5/14/2010	6	Faulkner	900	69	5	0	clear
5/14/2010	6	Faulkner	1000	74	3	0	clear
5/14/2010	6	Faulkner	1100	78	2	0	clear
5/14/2010	6	Faulkner	1200	80	5	0	clear
5/14/2010	6	Faulkner	1300	74	0	0	clear
5/14/2010	6	Powell	845	74	4/6	0	clear
5/14/2010	6	Powell	1100	80	3/5	0	clear
5/14/2010	6	Powell	1230	81	7/9	0	clear
5/15/2010	6	Flietner	1210	80	5/8	0	clear
5/15/2010	6	Flietner	1510	80	4/6	5	clear

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					Wind Speed Average/	Cloud	
	Survey			Temperature	Maximum	Cover	General Sky
Date	Week	Personnel	Time	(°F)	(mph)	(%)	Condition
5/17/2010	6	Powell	1050	60	3/5	100	overcast
5/17/2010	6	Powell	1210	65	6/8	100	overcast
5/17/2010	6	Powell	1125	67	6/8	100	overcast
5/17/2010	6	Powell	1300	67	5/10	100	overcast
5/19/2010	6	Couffer	840	668	0/1	0	clear
5/19/2010	6	Couffer	900	69	081	0	clear
5/19/2010	6	Couffer	1000	71	0/1	0	clear
5/19/2010	6	Couffer	1100	85	0/2	0	clear
5/19/2010	6	Couffer	1200	84	0	0	clear
5/19/2010	6	Couffer	1300	82	0/1	0	clear
5/19/2010	6	Powell	930	67	0	0	clear
5/19/2010	6	Powell	1045	82	4/6	0	clear
5/19/2010	6	Powell	1230	84	5/8	0	clear
5/19/2010	6	Lohstroh	1230	74	0/5	0	clear
5/19/2010	6	Lohstroh	1300	78	3/10	0	clear
5/19/2010	6	Lohstroh	1400	81	0/5	0	clear
5/19/2010	6	Lohstroh	1500	83	0/6	0	clear
5/19/2010	6	Lohstroh	1530	86	0/5	0	clear
5/19/2010	6	Lohstroh	845	66	0/1	0	clear
5/19/2010	6	Lohstroh	1000	70	0/3	0	clear
5/20/2010	6	Couffer	848	71	3/4	0	clear
5/20/2010	6	Couffer	900	73	2/4	0	clear
5/20/2010	6	Couffer	1000	78	2/6	0	clear
5/20/2010	6	Couffer	1100	77	2/6	0	clear
5/20/2010	6	Couffer	1200	75	1/5	0	clear
5/20/2010	6	Couffer	1300	80	3/6	0	clear
5/20/2010	6	Couffer	1315	80	3/5	0	clear

APPENDIX B FIELD DATASHEETS

Recorder:	054	sorne	Add'i	l Person: _	7056			Date:	3/25	/2010
Project:	Campo		gy Project		•			Survey Sx	kn: <u>/</u>	<u>/</u>
GPS Unit	<u> </u>	5			_ QCB Prot	ocol Sur	rvey#_	/	of	5 .
	24-hour)	Temp (F°):	Wind (avg/max)	% CC				Sky		-
START	(121	72	10/3	, CO_	clea		tchy	overcast	drizzle	shower
1/21	1140	60	28/5		clea		tchy	overcast	drizzle drizzle	shower
140		59	15/17	<u> </u>	Celea		itchy itchy	overcast overcast	drizzle	shower
		37	165/1-		clea		tchy	overcast	drizzie	shower
410		6/	1.7/4		clea	<u> </u>	tchy	overcast	drizzle	shower
END		8/	/	 	clea		tchy	overcast	drizzle	shower
	1-site (circle)	pen soils	, hilltops, ridge:	s, rock out					W7V-1544	
		Butterfl	y Species					Tally		Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)							
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TOTAL NUME	BER OF QCB DET	ECTED: O INDIVIDUALS							

Page 1 of 1

1 00 mg

Recorder:	Andren	Pignio	<u>ෙ</u> Adď	l Person: 1	hilip P	a i	Pal	Date:	3/22/	(0)
Project: _	Campo	Wind Energ	y Project	Map #:	9			_ Survey Sx	(n:	
GPS Unit	· #1				QCB Prote	ocol	Survey #		of	5
TIME (24-hour)	Temp (F°):	Wind (avg/max)	% cc	-			Sky		- Productions
START	1030	61	0-2	20	clea	r s	patchy	overcast	drizzle	shower
	1130	i '	2-6	00	clea	ır	patchy	overcast)	drizzle	shower
	13-30	63	2-6	85	clea	r	patchy	overcast	drizzle	shower
	1330	57	2-8	95	clea	г	patchy	(overcast)	drizzle	shower
	4000				clea		patchy	overcast	drizzle	shower
	530				clea		patchy	overcast	drizz!e	shower
END		8200	2-6	100	clear		patchy	overcast	drizzle	shower
	-site (circle)	open soils	hilltops, ridge							
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		Butterfi	y Species					Tally		Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
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TOTAL NUM	BER OF QCB DE	TECTED: $ ot \hspace{-1em} \psi \hspace{-1em}$ INDIVIDUALS

Page $\frac{\mathcal{V}}{2}$ of $\frac{2}{2}$

Quino Checkerspot Butterfly Protocol Survey

1011 66.9 3.4/6,2 10 clear patchy overcast drizzle shower 1190 71.2 0.6 1.6 1.6 6.0 clear patchy overcast drizzle shower 1:00 65.5 4.7/8.7 100% clear patchy preferse drizzle shower 2:00 63.9 2.1/4.7 100% clear patchy patchy drizzle shower 2:00 63.9 2.1/4.7 100% clear patchy overcast drizzle shower 2:00 62.9 5.4/9.9 100% clear patchy overcast drizzle shower clear patchy overcast		1			Field Dat			•		
Survey Sxn: OCB Protocol Survey #	ecorder:	Vivian	e Mai	V112 7Add'I	Person: Da	aire St	2.00	Date:	3/22	110
TIME (24-hour) Temp (F*): Wind (avg/max) % CC Clear patchy overcast drizzle shower (patchy) overcast drizzle shower (patch) (patch) overcast drizzle shower (patch) (patch) (patch) overcast drizzle shower (patch) (pat							J.			
TIME (24-hour) Temp (F1): (avg/max) % CC clear patchy overcast drizzle shower overcast drizzle shower patchy overcast drizzle shower overcast drizzl	ojeci		Willia Ellera	ly Project	_ wap #	10		_ Survey S	xn	
TIME (24-hour) START Optil Gele, V 3.44 (e.g. 10 clear patchy overcast drizzle shower graces of the content	PS Unit	:_4				QCB Proto	col Survey #	<u> </u>	of	5 .
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Butterfly Species Butterfly Species Tally Total Sara's Dangerp Checkered White Ferplexing hairstreak Lady Sp. Thineved Displayway MEPOI WEPOZ Excluded polygon dense chapter Exclu	and	2:25		5,4/9.9	100%	clear	patchy	(overcast)	drizzle	shower
Butterfly Species Tally Total Sara's Dranget P Checkered White Checkered White Perplexing hawshear Lady Sp. That II Thereal Diskyway II Z VMEPOI WEPOZ Excluded polygon dense chapan					- 1					
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TOTAL NUM	BER OF QCB DE	TECTED: INDIVIDUALS

Page 2 of 2

Recorder	M. He	eath	Add'l	Person:	Toshua	Paipa	Date:	3/22	110'
Project: _	Campo		y Project						
GPS Unit	:_3_				QCB Prot	ocol Survey	#I	of	5
TIME	(24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	10:00	61	8/9	10	clea	r patchy	overcast	drizzle	shower
	11115	63	7/2/105	25%	clea	r (patchy) overcast	drizzle	shower
	12:00	63	9.5/20	75%	clea	r patony	overcast	drizzle	shower
	13:00	62	3.5/6.5		clea	r patchy	(overcast)	drizzle	shower
-1.0010	141:00	585	5.699.9	1008	clea		(overcast)	drizzle	shower
					clea	1000	overcast	drizzle	shower
END			-		clea	55 33	overcast	drizzle	shower
Contract of the Contract of th	n-site (circle)): open soils,	, hilltops, ridges	s, rock outc					
		Butterfl	y Species				Tally		Total
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		Baba Blue eggs ",
		Frodkom Moderning
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	Mexican	Mangante Movein - not good host than
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		Miner's Cettree Mouering
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TOTAL NUMI	BER OF QCB DE	TECTED: INDIVIDUALS

Recorder:	BRIAN	J LOHST	MA Add'I	Person:	OMAR	(Escor)	Date:	3/22	110
Project:	Campo	Wind Energ	y Project	Map #: _	19		_ Survey Sx	: :	
GPS Unit	6	·.			QCB Prote	ocol Survey #	1	of	<u> </u>
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	0920	61	0-5	10	glea) patchy	overcast	drizzle	shower
	1000	64	0-3	20	clea	patchy	overcast	drizzle	shower
	1100	6	_35	40	clea	atchy	overcast	drizzle	shower
	1200	61	_3-5	60	clear	patchy	overcast	drizzle	shower
	1300	60	_3-5	700	clea	patchy	overcast	drizzle	shower
	1400	60	<u> 3-5</u>		clear	patchy	overcast	drizzle	shower
END	1445	60	3-5	100	clear		overcast	drizzle	shower
Habitat Or	-site (circle)	: open soils,	hilltops, ridges	rock outc	rops, soil cr	usts, clay soil	s, old foats,	various ne	ctar sources
	-	Butterfly	/ Species				Tally		Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		Bush
		074
		16/176
		Sc)a
		Cath
		CORA
		Bolicat Scal + thack
		Scoc (W. fence Lizard)
		4TST (side-blotch Lizard)
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	-	Eppher & Nack&
		Anha
		WC SP
		CALT
		OCIU
		Huvi
		SATO
RLCPOI	Campo Pea?	campo pla, heed to verify
13 20101	CAVIJAS J C.	when blooming shops
0.7001	CD DT walkerslahit	3(3/1/1/1/1/2)
BLJROI	SDBT Jackenhoit	2 Ind 1V
	· .	cotton tail
<u>.</u>	·	
TOTAL NUM	BER OF QCB DET	rected: Individuals
		Page 2 of 1

Recorder:_	DAULD K.	FAUIKNEY	Add	'I Person: _	Eugene Pa	+ VB -co	Date: _	22	H 200
GPS Unit :	2	,			_ QCB Prot	ocol Survey #	!	of	5 .
TIME (24	I-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	1000	65	2 W	30	clea	r (patchy)	overcast	drizzle	shower
	itoo	68	<u>3 w</u>	50	clea	r (atchy)	overcast	drizzle	shower
	1200	68	<u> 5 ა</u>	70	clea	r (patchy)	overcast	drizzle	shower
	1300	65	له ما	160	clea	r patchy	(overcast)	drizzle	shower
	1400	64	به نه	100	clea	r patchy	overcast	drizzle	shower
	1500	63	7 W	100	clea	r patchy	(overcast)	drizzle	shower
END	1600	59	13 W		clea		overcast	drizzle	
Habitat On-	site (circle)	open soils	hilltops, ridge	es, rock out	crops, soil cr	usts, clay soil	s, old roads	various ned	ctar sources
		Butterfly	Species				Tally		Total
A. Sm	A						HH HH	<u> </u>	11
C. Derl	Merica						11		2
N. Car	Lornica							٠	3
V. Car	Aui (Worn)							ì
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
at Both	> 1 pt.	Collensia sp Common
DECHOIS	•	
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TOTAL NUM	BER OF QCB DET	TECTED: Ø INDIVIDUALS

Page <u>2</u> of <u>2</u>

Quino Checkerspot Butterfly Protocol Survey

December	Jimmy	MCMOVY	CAdd'l	rieid Da	ita Sileet	40.0	-	20 XI	7 016
Recorder:	Natali	Caroca	<u>C</u> Add1	Person: _D	avid Dy	che:	Date: __	22 19	2010
Project: Campo Wind Energy Project Map #: _					15		_ Survey Sx	(n:15	
GPS Unit	:5				QCB Protoco	ol Survey #	£	of	<u> </u>
TIME (24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	1315	66'	2/4	90%	clear	patchy	overcasto	drizzle	shower
-					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy patchy	overcast overcast	drizzle drizzle	shower
					clear	patchy	overcast	drizzie	shower
END	1415	64"	8/12	70-105%			overcast?	drizzle	shower
Habitat Or	n-site (circle)	: open soils,	hilltops, ridge:	s, rock outer		ts, clay soi	ls, old roads,		
PVINAA	<u> </u>		्र ∕ Species	Z			Tally		Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
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TOTAL NILINA		FECTED: // INDIVIDUALS
TOTAL NUM	BER OF QCB DET	TECTED: INDIVIDUALS

Page 2 of 2

Quino Checkerspot Butterfly Protocol Survey

Field Data Sheet Jimmy Mc Morran Recorder: Natalie Brodie Add'l Person: David Dyche Date: 22 Mar 2010 Project: Campo Wind Energy Project Map #: 10 Survey Sxn: 10 QCB Protocol Survey # 1 of 5 . GPS Unit: 5 Wind TIME (24-hour) Temp (F°): % CC (avg/max) Sky 1015 410% START 68 2/6 clear) patchy overcast drizzle shower 660 1100 30-40% clear patchy overcast drizzle shower 1220 _68° 41/10_ 70.20% clearpatchy overcast drizzie shower 660 1315 4 16 20-70% clear patchy (overcast> drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower 66° 4/6 80 90% END 1315 overcast clear patchy drizzle shower Habitat On-site (circle) open soils hilltops ridges tock outcrops, soil crusts, clay soils, old roads, various nectar sources **Butterfly Species** Tally Total Java ovavdetip JH 11 Perplexing Hairstreak 111 Pale Swallow tail Unidentified lady (probably Painted) Funereal Duskyming Southern blue

MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED I SPECIES LIST (NECTAR SOURCE		
NEAROL	Point	Ant Cov. on slight hillsid	e few individuals so	Hered p 510pg
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Page 2 of 2

Recorder:	M: M	ulliga	Add'l	Person:	5. Innec	Ken, PM	Date:	3.24	10
Project: _	Campo	Wind Energy	/ Project	Map#:_	9		_ Survey S	хл:	
,						ocol Survey #			•
TIME (24-hour)	Temp (F°):	Wind (avg/max)	% cc			Sky		
START	10:34	65	3-5	5	clea	r patchy	overcast	drizzle	shower
	1305	68	3-5	20	. clea	r patchy	overcast	drizzle	shower
	-	-		,	clea	r patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
					clear	r patchy	overcast	drizzle .	shower
					clear	r patchy	overcast	drizzie	shower
END.					clear	patchy	overcast	drizzle	shower
Habitat Or	-site (circle)	open soils	hilltops, ridge	s rock outc	rops, soil cri	usts, clay soil	s, old roads	, various ne	ctar sources
		Butterfly	Species				Tally		Total
SARA	1'S ORA	NGE TI	7	-					2
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BOH	125 ME	TALMA	VC 1			111			3
PAL	MEXIN	5 HA1125	MEAK						4
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M. Wallen

MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST
MMCSOI.	sensitive plant	Caulanthus simulays a 50 plantis
MHLOI	Sensitive replace	Horn Lizard
MMHL02	Sensitive vertile	Horn Lizard
MMCSOZ	Sensitive plant	Caulantays Simulans = 25 plants
	nectar plant	Cryptantna Sp.
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	 BER OF QCB DET	ECTED: INDIVIDUAL

Page 1 of 2

			Quinc	Cilec		ata Sheet	MOCOI	Survey	<u>, </u>			
Recorder: M. Heath Add'l Pers						Toshua	Pai	pa	Date:	3/24/1	0	
Project: _	Campo	Wind Energ	y Projeci	t	_ Map #: _	12			_ Survey S:	хп:		_
GPS Unit	: #3					QCB Prote	ocol Si	urvey#	#1	of	5	<u> </u>
TIME (24-hour)	Temp (F°):	Win (avg/ŋ	iax)	% CC				Sky			
START	109:30	60	5-6/	8.6	0%	clea	ر م ر	atchy	overcast	drizzle	shower	
	10 30	63	361	 	0%	clea	r) p	atchy	overcast	drizzle	shower	
	1130	67	264	4.5	0%	clea	<u>7</u> p	atchy	overcast	drizzle	shower	
- '	1300	69.5	2.61	69	0%	clea	r S	atchy	overcast	drizzie	shower	
	14:06	64.5	2.97	7.5	0%	clear	<u>Б</u> р	atchy	overcast	drizzle	shower	
	15:00	70	3,01	16.4	0%	clear	3 p	atchy	overcast	drizzle	shower	
END	16:00	65		15	0%	clear		atchy	overcast	drizzle	shower	
Habitat Or	n-site (circle)	open soils	hilltops	ridges,	ock outcr	ops) soil cri	usts, cl	ay soils	, øld roads	various ne	ctar source	
		Butterfly	/ Specie	s					Tally		Total	
Paintel	Lada		-		-		M	#H\			10	
- (Species	,				-	i				1	
Disky	ii ii						i				Î	
100											Santa Santa	\neg

Butterfly Species	Tally	Total
Painted Lady	Tru the	10
Blue Species	***************************************	
Danyung	7	Î
Green Vairstreak	TH 10	8
Sara Orana Tro	M HI THI	16
TOURS WHA		VATER OF THE PARTY
White sp?		2
Behrist metalman	BH 111	8
town Blue	M	5
Wights Metalumik?		
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		Erodium - many llowers
		Goldfields - Illowers
		SCJA, CAQU. ACWO AMOU CATO, NOFL
		Perly G. J. Pochel Guyler
		Azdubans Cottatail rabit 1
		Bickbrush flowering/ bees
		Mexica Mangaita pinh/while flowers
		Baby bloverge
		Call Poppy
		Grand Votos? - smill gellow flower
		Saybrigh 120
		0
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		FOTED (1) IND (1) (1)
TOTAL NUME	BER OF QCB DET	TECTED: INDIVIDUALS

Page <u>2</u> of <u>2</u>

Recorder:	Erik (Lo Coste	• Adďil	Person:				Date:	2/24/	10
Project:	Campo		y Project						,	
GPS Unit							ırvey#		of	5 .
TIME (24-hour)	Temp (F°):	Wind (avg/max)	% CC	-			Sky		· · · · · · · · · · · · · · · · · · ·
START	0950	(00	10/15	A	/elea	ar) p	atchy	overcast	drizzle	shower
			///		Clea	/	atchy	overcast	drizzle	shower
		-			clea		atchy	overcast	drizzle	shower
:					clea	er pa	atchy	overcast	drizzie	shower
		-			clea	ar pa	atchy	overcast	drizzle .	shower
					clea	ar pa	atchy	overcast	drizzie	shower
END	340		10/15	5	cfea		atchy	overcast	drizzle	shower
Habitat On	-site (circle): open soils,	hilltops/ridge	s, rock outc	eps, soil cr	usts, cl	ay soils	old roads,	various ne	ctar sources
		Butterfly	Species					Tally		Total
Pain	LED L	ADY				144 144	L 1XH 76	# 144 141	THI	35
Dusk	ywing	Sp				/		7. 7.77		/
		MIRSHEN	K	-		1/1/	/			6
	KERED									1
		n ARBLE		•••		1/				2
	ORANG					HA				5
Acm	ON Blu)B				1/				2
SPCII	19 A EL	IRE				1				/
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
-		Colifiolds (Lasthenia.)
		filaree (Erodium SP)
		Baby Blue eyes
-		Courtentha
# ELNL OI	Pain +	Cryptantha Lotus SP - Smull yellow Flower.
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	<u>:</u>	
TOTAL NUME	BER OF QCB DET	FECTED: $egin{array}{cccccccccccccccccccccccccccccccccccc$

Page 2 of 3

Recorder: Gretche	a Comi	mings Add'l	Person: _E	Eugene		Date:	3/24	10
Project: <u>Campo</u>	Wind Energ	y Project	Map #: _	10	7	Survey Sx	ന:	
GPS Unit: 4					tocol Survey#			
TiME (24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START 0945	64	4.9/10.1		Clea	patchy	overcast	drizzle	shower
1100	70	7.6/10.9		clea	patchy	overcast	drizzle	shower
130D	70	3044		clea	r (patchy)	overcast	drizzle	shower
1415		9.1130		clea	r (patchy)	overcast	drizzle	shower
Q5300	Q (50)	(2.6)Dans		. clea	r patchy)	overcast	drizzle	shower
1/500		•	,	clea	r patchy	overcast	drizzle	shower
END 1520	75	a.0163		clea		overcast	drizzle	shower
Habitat On-site (circle)			rock outer	ops, soil ci	rusts, clay soils	old roads	various ne	ctar sources
		y Species		Mileton garatet "		Tally		Total
Callophnys	affini5	(Green Ha	protrea	ĸ\	4111	•		7
Vanissa co	rodui 1 f	Painted 10	dil	. /	41411	X IIX II	•	22
Sphyngid m	offs	200			1111	// 1/ // //		4
Nymphalis c	ali fornit	Colifornia To	r to seshe	41				1
			101.02.00	77	11			2
Erynnis p Anthochoris	Sera	(Sara's	Orange	40)	WHIL	H11		17
Pontia sp.		<u> </u>	- 0	11/0	I I			
			· · · · · · · · · · · · · · · · · · ·	-				
Colias Sp.								
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
GCNLI	Woodrat nest	Son Diego Desert Woodret nest in Your
		WEST IH
		Plagiobothrys sp.
GCBJI	Jackrabbit pellets	Black-tailed Jackrabbit pellats fresh
		Arctostaphylos sp.
		Amsinckie measuresteens menzesis
		CORA III
6CBJ2	Jackrabbit	Jackrabbit between shubs startled out
		Pectocarya
		BUSH II
		Thomomys bottal burnows
		CATHI
		Uta stansburiana 11
		Sylvilagus auduboni IV
	·	Spermophilus beachayi II
		HOWR I'
	***************************************	Sceloporus orcutti III
		Neotoma fuscipes nest under Oak
	·	Lasthenia sp. (Goldfields)
-		Sceloporus occidentalis III
-,		LEGO II
		OATI (1
		5PTO 1
GCNLA	Woodrat Nest	BOODD Son Diego Desert Woodnet in boulde
		Nemophila menziesii lots!
		Descuração pron 9+9
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TOTAL NUMI	BER OF QCB DET	ECTED: INDIVIDUALS

Page 2 of 3

Recorder:	Margie	L Mull	1gan Add'I	Person:	>.Innek	in Ppair	<u>7</u> Date:	3.24.	46
Project:	Campo	Wind Energy	y Project	Map #: _	<u>15</u>		Survey Sx	(n:	
GPS Unit	2		Aun a		QCB Proto	ocol Survey#	P	of	5 .
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)⊰ੈ⊾	% CC			Sky		
START					cjear	patchy	overcast	drizzle	shower
	1412	72	1-8	20	/ølear	patchy	overcast	drizzle	shower
-	15/2	. 72	5-6	20	Elegi	patchy	overcast	drizzle	shower
	1630	סל	3-5	20	clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
END					clear	patchy	overcast	drizzle	shower
Habitat On	-site (circle)	: open soils(hilltops, ridges	Jock outci					
				<u> </u>					
		Butterfly	Species				Tally		Total
200	NHELF	1N				III	-		3
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		PRAIRIE FALCON
		REDTAIL
	NECTAR SOURCE	·CRYPTANTHASP. CINTERMEDIA
MMC503	Seusifive Plant	Caulanthus Simulans - Bplants Scuttered
MMCHOI	host plants	Collinsia hostplants
MM CSO 4	sinsitive plant	Caulantous simulans - end of afplant
MATOJU S))	Scattered midslope accor below
		vidge between MMCSO3.
		VIANTE DEJINETH MINICOUS.
	BER OF QCB DET	ECTED: O INDIVIDUAL

Page <u>2</u> of <u>2</u>

Recorder:	Greto	hen Cu	mming Addil	Person:	Eugen	œ	Date: _	3/04	10
			y Project		_		_ Survey Sx	n:	
GPS Unit:		4	·		QCB Pro	tocol Survey #	<u> </u>	of	5 .
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC		AH	Sky		
START	1520	75	2.0/4.3		clea	ar patchy	overcast	drizzle	shower
-					clea	ar patchy	overcast	drizzle	shower
	-				clea	ar patchy	overcast	dnzzle	shower
					clea	ar patchy	overcast	drizzie	shower
					. clea	ar patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
END	1600	70	3.4/8.2		clea		overcast	drizzle	shower
Habitat On	-site (circle):	open soils,	hilltops, ridges	, rock outer	ops, soil ci	rusts, clay soi	s, old roads	various ne	ctar sources
		Butterfly	Species				Tally		Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)								
GCEPI	excluded polygo	on dense Chaporral - excluded hobitat								
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100										
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<u></u>	and the Baddware									
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	and the state of t									
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TOTAL NUMF	BER OF QCB DET	TECTED: () INDIVIDUALS								

Page <u></u> of <u></u>

oject: Camp	o Wind Energ	gy Project	Map#:	2,13	3	Survey S:	xn: <u>* / / / A</u>	
PS Unit : 8	- Souther May			QCB Proto	ocol Surve	/# <u> </u>	of	5
TIME (24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START 1100	60	301/4.9	0%	clear	patchy	overcast	drizzle	shower
1220	61	7.2/10.3	0%	clear	patchy	overcast	drizzle	shower
14.00	61	9.94/17.2	0%	clear	patchy	overcast	drizzle	shower
15:00	61.5	559 14.11	070	clear	patchy	overcast	drizzle	shower
16:20	66.5	14.2/21.3	0%	Clear	patchy	overcast	drizzle	shower
	-	(Ť.	clear	patchy	overcast	drizzle	shower
END				clear		overcast	drizzle	shower
bitat On-site (circle	e) open soils	hilltops, ridges	s, cock outcr	ops, soil cru	ists, clay s	oils old roads		ectar source
	Butterf	ly Species				Tally	tew	Total
2		ly opecies			111	Tally		3
Painted Lad	5		- MAN 10		_!!!			_ کـــا
cua Oran	of tip				1			11
lue so) 1							1
Come lot or 5	Som wr				j			1
Behr's Met					111			7
	XICON				31			2
ainted Lady	,				1			
iseen Hairs	mente							
Hooly bear	Caterp. 11	us			##			5
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F6 - 80			Salt attie.			(-	10	
	0	1 1 1	11.	AT .		1 17		1 . 1
Saw Mo	-y da	ak butter	lies	Myan	-Pr	ubably	green	16 ms/he
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Page 1 of 2

MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
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0		Mexica Mangale 4
d'in		Fradium J
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The second secon		Popcoul flores
		Boby ble eyes
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		Adval CT, CAGS, Point Goph / Partison he
		Mineis lettres loner
		Grad lotos III
		Willow Plomer unid (picture)
		Mustand-smil
MHLIO(Sersitive Sp	Mountain Lien Tracks (lound 2 where ago
	V	but I lought to GPS at that time
		Parenous flower
		V
		Map 13 - Many Large cat
		tracks the anon
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TOTAL NUM	BER OF QCB DE	TECTED: INDIVIDUALS

Recorder:	DAVI	DK. FAUIL	Add'l	Person:	Gogane.	D,	blo	Date:	35 Him	<u>d. 2010</u>
Project:	Campo	Wind Energy	Project	Map#:_	25/ <i>2</i> 4	<u>ഺ</u>		Survey Sx	in:	
GPS Unit:	#7	•			QCB Proto	ocol (Survey#_	1	of	5 .
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC				Sky		
START	1300	630	7 W	Ø	Clea	D_	patchy	overcast	drizzle	shower
-					clea	r	patchy	overcast	drizzle	shower
	<u></u> .				clear	r	patchy	overcast	drizzie	shower
					clea	r	patchy	overcast	drizzle	shower
					clea	r	patchy	overcast	drizzle	shower
					clea		patchy	overcast	drizzle	shower
END	1400	ليصطرا	9 4	ø	Cleai	<u>D</u>	patchy	overcast	drizzle	shower
Habitat On	-site (circle)	open soils,	hilltops ridge	rock outc	rops soil cri	usts,	clay soils,	old roads,	various ne	ctar sources
		Butterfly	Species					Tally		Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
#25 (24)		Nectar Sourcest Poppies
		·
		Crypta-tha Laters
		21
		Buty blue ages yustand (ustine)
		Gustand (ustine)
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	BER OF QCB DE	TECTED: Ø INDIVIDUALS

Page <u>2</u> of <u>2</u>

Recorder:	Drug O	K- FAUL	Add'l F	Person:	Eugens	Pablo	Date:	25 HM	र्ट ने ने ने
			Project		•				
GPS Unit :	47	·			QCB Prot	ocol Survey #	<u> </u>	of	5
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	1400	ලුව	ع سولان	Ø	clea	patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
					clea	·	overcast	drizzle	shower
END	1600	590	لن) ಟಿ hilltops, ridges	Ø	clea	D patchy	overcast	drizzle	shower
Habitat On	-site (circle)	: open soils,	hilltops, ridges	Tock outc	rops, soil cr	usts, clay soi	ls old roads	various ne	ctar sources>
		Butterfly	Species				Tally		Total
il Cala	- C		Сроилос				rany		2
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)							
± 24		Hear: Lupines							
,		Poppies & Few mones in							
		Cryptonias) Hower get							
		<i>y y</i>							
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TOTAL NUM	BER OF QCB DET	TECTED: Ø INDIVIDUALS							

Page _ _ of ____

Recorder:	DAVID	K. FAULK	Add'l	Person:	Eugene P	Abb		Date:	25 MAG	Lit Zoio
			Project		-					_
GPS Unit	<u> </u>	· ·			_ QCB Prot	tocol	Survey #		of	5
			Wind							
	24-hour)	Temp (F°):	(avg/max)	% CC				Sky		
START	il ØC	60	7 <u>w</u>	Ø	Cléa		patchy	overcast	drizzle	shower
	1700	61	6 W	Ø	cleá		patchy	overcast	drizzle	shower
					clea		patchy	overcast	drizzle	shower
					clea		patchy patchy	overcast overcast	drizzle drizzle	shower
					clea		patchy	overcast	drizzle	shower shower
END	1300	63	_ 7	Ø	Clea		patchy	overcast	drizzie	shower
			hilltops ridges		rops, soil cr	usts.	clav soil	s old foads	various ne	ectar sources
						,	olay com	0.0	, , , , , , , , , , , , , , , , , , , ,	ocial occine
		Butterfly	Species					Tally		Total
C. po	pleye									6
V. Ca	raui									3
A- SA	TA.									15
N. C.	i-famicae									2
P. 5	B Sisymb	-0								2
C. Au	qustime	2					-			3
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYC SPECIES LIST (NECTAR SOURCES, GE	GOS AND GPS POINTS/ NERAL WILDLIFE LIST)
Mp +27		Few Amounts in flower	Constanta
· ·			Mustand (native)
			Gradium sp.
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TOTAL NUMI	BER OF QCB DET	rected:	INDIVIDUALS

Page <u>i</u> of <u>2</u>

Recorder: 1	David F	-lietne	C Add'l	Person: 5/	nilley 1	, nn(eckon	Date:	3/2.	5/10
Project:	Campo	Wind Energy	Add'l	Map #: _	5	· .	<u> </u>	Survey Sx	on: <u>* * /</u>	vía
GPS Unit:	6				QCB Prot	ocol	Survey#	1	of	
TIME (24		Temp (F°):	Wind (avg/max)	% CC				Sky		
	1130	63	4-8	0	(,clea	<u>r)</u>	patchy	overcast	drizzle	shower
	12				clea	r	patchy	overcast	drizzle	shower
					clea	r	patchy	overcast	drizzle	shower
					clea	r	patchy	overcast	drizzle	shower
					clea	r	patchy	overcast	drizzle	shower
			<u> </u>	•	clea	L_	patchy	overcast	drizzle	shower
END	1200	63	4-8	0	clear	r) ·	patchy	overcast	drizzle	shower
Habitat On-	site (circle):	øpen soils,	hilltops, ridges	rock outer						
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		Butterfly	Species				******	Tally		Total
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Page ___ of ____

MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
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TOTAL NUMI	BER OF QCB DE	FECTED: \mathscr{V} INDIVIDUALS

Page 2 of 2

Recorder	David	d Flieh	18/ Add'l	Person: 54	hirley 1	nnecke	س_ Date:	3/2	5710
Project: _	Campo	Wind Energ	y Project	Map #: _	15		_ Survey S	xn:	
3PS Unit	t:	6		· · · · · · · · · · · · · · · · · · ·	QCB Proto	col Survey#		of	5 .
TIME	(24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	1220	78	<u>G-3</u>		clear) patchy	overcast	drizzle	shower
	4			//	clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
		·			clear	patchy	overcast	drizzle	shower
	15126	72		0	clear	patchy	overcast	drizzle	shower
END	1340		0 - <u>5</u>		clear	patchy	overcast	drizzle	shower
abitat O	n-site (circle). ppen soils,	hilltops, ridge	s rock outer	ops son cru	sts, clay soli	s, old roads	, various ne	ectar sources
	0 -	1 //	/ Species			4	Tally		Total
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AP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIS
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		Ceanoth cupeatus
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Page <u>2</u> of <u>2</u>

Recorder:	David	Fliety	<u>2√</u> Add'l	Person: <u>S</u>	rivley	Innocken	Date: _	3/25/	10
Project: _	Campo	Wind Energy	/ Project	Map #: _		19	_ Survey Sx	in:	
GPS Unit	:				QCB Proto	ocol Survey #		of	5 .
TIME (24-hour)	Temp (F°):	Wind (avg/max)	% CC	Slicht	t huze	Sky		
START	1410	72	2 ~/_	6	clea		overcast	drizzle	shower
			3-7_		clea	r patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
		·-			clear	r patchy	overcast	drizz!e	shower
					clear	r patchy	overcast	drizzle	shower
					clear	r patchy	overcast	drizzle	shower
END	1645	tol	2-4	0	clear		overcast	drizzle	shower
Habitat Or	-site (circle)	open soils,	hilltops, ridge	s, rock outcr	ops, soil cri	ūsts, clay soils	s, old roads(various ned	tar sources
•••		•c.		Service Control of the Control of th					
			Species			9	Tally		Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
DFLVOI	P	Luthyrus vestitus
DECSOI	pt	Coulanthus simulans ~20
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		Venoph menz
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e de la companya del companya de la companya del companya de la co		Colyptantha (Small)
		doct sign
		Canissonia
TOTAL NUMI	BER OF QCB DET	TECTED: INDIVIDUALS

Page \overline{Z} of \overline{Z}

Recorder:	DAVE	FLI	FNG [Add'l	Person: <u>S</u>	HIPLE	للبخ	UNEC	<u> 1431</u> Date:	3/2	6/10
			y Project			1 /			,	
GPS Unit	:2	<u> </u>			QCB Pro	otocol Si	urvey #		of	5 .
TIME (24-hour) 1025	Temp (F°):	Wind (avg/max)	% CC		***************************************		Sky		
START	1020	63	0-2		(, cle	ar) p	atchy	overcast	drizzle	shower
	1240	65	0-2	\bigcirc	Cie	ar) p	atchy	.overcast	drizzle	shower
				. ,	cle	ar p	atchy	overcast	drizzle	shower
					cle	ar p	atchy	overcast	drizzle	shower
					cle	ar p	atchy	overcast	drizzle .	shower
					cle	ar p	atchy	overcast	drizzie	shower
END	1450	725	G~2	0			atchy	overcast	drizzle	shower
Habitat On	ı-sité (circle):	open soils,	hilltops ridges	Cock outcro	ps, soil c	rusts, c	lay soil:	s, old roads,	vacious ne	ectar sources
	·									
		Butterfly						Tally		Total
	Sara	ovance	stip .	•			,,			13
	Brunk	do D	girstreak			1:				5
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	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
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	REP OF OCR DET	ECTED: (7) INDIVIDUALS

Page of 2

Project Campo Wind Energy Project Map #: 13 18 Survey Sxn:	Recorder: M. Heath Add'l Person: Lewis	Connolly Date: 3/26/	10
CPS Unit :	i ii	_	
TIME (24-hour) Temp (FY (avg/max)) % CC START 0:00 57 1:2 / 0:4 0.70 clear patchy overcast drizzle shower 11:30 b4:7 0-5 0.9 clear patchy overcast drizzle shower 13:00 64:5 3:0/4:3 0.70 clear patchy overcast drizzle shower 14:30 67:6 2:1/4:1 0.70 clear patchy overcast drizzle shower 16:30 67:8 6:0/8:6 0.9 clear patchy overcast drizzle shower 16:30 67:8 6:0/8:6 0.9 clear patchy overcast drizzle shower 16:30 67:8 6:0/8:6 0.9 clear patchy overcast drizzle shower END	CPS Unit: 4	÷	5
START 10:00 57 1.2/04 070 clear patchy overcast drizzle shower 11:30 14:1 0-2 09 clear patchy overcast drizzle shower 13:63 64.9 3.0/4-3 076 clear patchy overcast drizzle shower 14:130 67.6 2.1/4:1 0.6 clear patchy overcast drizzle shower 16:30 67.8 6.0/8.6 0.0 clear patchy overcast drizzle shower 16:30 67.8 6.0/8.6 0.0 clear patchy overcast drizzle shower END clear patchy overcast drizzle shower END clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower Habitat On-site (circle): Spen soils (hilltops, ridges, tock outcrops) soil crusts, clay soils old roads, various nectar sources from Shower Tally Total Souther Blve 1 Creen hanstroak 11 Acynum Blve 5 Butterfly Species 11 The Habitat H	/ Winds }		
11:30 14:7 0-5 0	TIME (24-hour) Temp (F°): (avg/max) % CC	``_`	
13 60 64.9 3.0/4.3 0% (clear patchy overcast drizzle shower 14130 67.6 2.1/4.1 0.6 (clear patchy overcast drizzle shower 16:30 67.8 6.0/8.6 0% (clear patchy overcast drizzle shower 16:30 67.8 6.0/8.6 0% (clear patchy overcast drizzle shower 16:30 67.8 6.0/8.6 0% (clear patchy overcast drizzle shower 16:30 67.8 6.0/8.6 0% (clear patchy overcast drizzle shower 16:30 67.8 6.0/8.6 0% (clear patchy overcast drizzle shower 16:30 67.8 6.0/8.6 0% (clear patchy overcast drizzle shower 16:30 67.8 6.0/8.6 0% (clear patchy overcast drizzle shower 16:30 67.8 6.0/8.6 0% (clear patchy overcast drizzle shower 16:30 67.8 6.0/8 6.0/8 6.0/8 6.0/8 6.0/8 6.0 0% (clear patchy overcast drizzle shower 16:30 67.8 6.0 0% (clear patchy overcast drizzle shower 16:30 67.8 6.0 0% (clear patchy overcast drizzle shower 16:30 67.8 6.0 0% (clear patchy overcast drizzle shower 16:30 67.8 6.0 0% (clear patchy overcast drizzle shower 16:30 67.8 6.0 0% (clear patchy overcast drizzle shower 16:30 67.8 6.0 0% (clear patchy overcast drizzle shower 16:30 67.8 6.0 0% (clear patchy overcast drizzle shower 16:30 67.8 6.0 0% (clear patchy overcast drizzle shower 16:30 67.8 6.0 0% (clear patchy overcast drizzle shower 16:30 67.0 0% (clear patchy overcast drizzle shower 16:		/	··-·
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16:30 67.8 6.0 8.6 0% Clear patchy overcast drizzle shower	14130 67.6 2.1 / 4.1 0.6 cles		
Clear patchy overcast drizzle shower		51	
Habitat On-site (circle): Spen soils (hilltops, ridges, tock outcrops) soil crusts, clay soils, old roads, refour nectar sources Butterfly Species Tally Total Souther Blue Fainted Lady Acmor Blue Sara Orange Tip Blue Sp			
Butterfly Species Tally Total Souther Blue Green harstreak Painted Lady At man Blue Sara Orange Tip Blue Sp Blu		ar patchy overcast drizzle	shower
Sorther Blve Green harstreak Painted Lady At mun Blve Sana Obange Tip Blie Sp U Behr's Metalmark Diskyung Uh. H. 30	Habitat On-site (circle): spen soils hilltops, ridges, tock outcrops soil c	rusts, clay soils, old roads, various ne	ctar sources
Green harstrock Painted Lady He man Blive Sana Obango Tip Blive Sp U Behr's Metal mark Diskywing Uhik 30	Butterfly Species	Tally	Total
Green harstrock Painted Lady He man Blive Sana Obango Tip Blive Sp U Behr's Metal mark Diskywing Uhik 30	Souther Blue	-	1
Painted Lady Acmon Blue Blue Sp Blue Sp Blue Sp Blue Sp Blue Sp Blue Sp Bunis Metalmank Diskywing White \$0 III J J J J J J J J J J J		THE HIL THE MUI	21
Acman Blue Sang Orange Tip Blue 5p Blown Elfin Buhi's Metalmark DVSKywing Uhite 50 III 35 III 35 III 35 III 36 III 37 III 38 III		•	
Sara Orange Tip Blue 50 Blown Elfin Dyskywing What 30	Armon Blue		6
Behr's Metalmark Diskywing White 30	Sang Obango Tip	美美美美美	35
Bohr's Metalmark Dyskriumg 114 5 11h. R 30	Blue So		2
Bohr's Metalmark Dyskriumg 114 5 11h. R 30	Ocean Elfin		1
Duskywing MH 5		Ti	5
Spring white 2 matring PH HM III 13			5
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	Social Mate 2 metric	17.7	1
	Spring wife Zvarry	The state of the s	-
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
	,	Pop Carn Nove
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		Maxican Manhanita 4
		Babu blue eyes "
		ANDUNCE COTTON TAIL / POCKET GOPHER /WOODRAT NEST SI
		SCJA AMCO BUSHTITS CARY
		Miner's LETTUCE Phoein
		MUSTARD -SMALL "
		BITCH BRUSH Flowering
		ANHU
		GOLDPIELDS
		CMIF POPPY
		DESERT WOOLY DAISY
		FIDDLENECK
		PEONY .
		WHITE THORN CEANOTHUS
		Yucca
·····		3TSP TOVU RTITA
	<u> </u>	WESTERN FENCE LIZARD
		TREE FROGS TADPOLES NEARBY /5P??
11+EP220	Map13	Derse Chapanal
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	BER OF QCB DE	TECTED: Ø INDIVIDUALS

Page <u>2</u> of <u>2</u>

Recorder:_	DAVIO	- FAUIKN	Add'l F	Person:e	Eugene P	Ahlo	Date:	27 Marc	4 2010
Project:	Campo	Wind Energy	/ Project	_ Map#:_	24		Survey S	xn:	···
GPS Unit :	S				QCB Proto	col Survey#		of	<u>5</u> .
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	0900	56	12		clear	patchy	overcast	drizzle	shower
	1000	56	10	ø	clear	patchy	overcast	drizzle	shower
	1100	67	16	Ø	clear	patchy	overcast	drizzle	shower
	(200	63	7	ø	clear	patchy	overcast	drizzle	shower
				, , , , , , , , , , , , , , , , , , ,	clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
END	1300	الا	13		clear	patchy	overcast	drizzle	shower
Habitat On	-site (circle)	Open soils,	hilltops, ridges	, rock outc	ops, soil cru	sts, clay soils	old roads	various ne	ctar sources
			Species				Tally		Total
Gry	nnés ferm	ulis							1
A. 6	in A								5
Fred	se lotte	<u> </u>							4
و. ما	seton -	-> phin	f						9
6.0	chalcalor	١	,						
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
A 24		Nector = Pappies
,		Endian
		Endion Baby blue uper Amsinkia Lupines
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	·	Am Si akt a
		Capus
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	BER OF QCB DET	TECTED: Ø INDIVIDUAL

Page <u></u> of <u>1</u>

				rieid Da	ita Sneet					
Recorder:	Natalie	Brodie	Add'l	Person: P	hillip.	.5		Date: _	29 Ma	r. 2010
Project:	Campo	Wind Energ	y Project	Map#: _	4			Survey Sx	m:<	<u> </u>
	:#8	1								<u> </u>
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC				Sky		
START	1230				clea	r) (patchy	overcast	drizzle	shower
	1345	73°	2/4	20-30%	clea		patchy	overcast	drizzle	shower
	1445	73°	2/4	10-ZO 1.	clea	r	patchy	overcast	drizzle	shower
	, ,	•			clea	Г	patchy	overcast	drizzle	shower
					clea	۲.	patchy	overcast	drizzle	shower
					clea		patchy	overcast	drizzle	shower
END	1600	70°	4/6	Ø	clea	$\overline{\zeta}$	patchy	overcast	drizzle	shower ectar sources
Habitat Or	n-site (circle)): open soils,	hilltops, ridge	s, rock outcr	ops, soil cr	usts	s, clay soils	, old roads,	various n	ectar sources
					·	1				
			/ Species					Tally		Total
	· blue					lil				
Sara	ovarge	tip	·			M	7			C
FUNLYE	al Dusk	wing _				W				5
Marybl	ر	./ }				HI	UK!			(1
Perola	aine Hall	vstveak				11				2
	Metaln					1(1)				3
				11-1		11				2
Paniala	dhia					11				3
Visit in	la Gast	Svifer	·			111				3
	11111 (N	001100				318				
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MAP/GPS LABEL	POINT/POLYGON TYPE	SPECIES LIST (NECTAR SO	PPED POLYGOS AND GPS P OURCES, GENERAL WILDLI	FE LIST)
		Cryptalitha sp.		
-		GoldFields	•	
1BCH02	point Next plant	Cellinsia (20+) in	bushes (serub oak ?	chamise
NBHLOI	120 IMT	horned lizard		
17.11				
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Page <u>2</u> of <u>2</u>

Recorder:	Noble	Brodin	Add'	Person: P	'hillip			Date:	201 M.	ar 2010
Project:	Campo	Wind Energ	y Project	Map #: _	3			Survey S	kn:3	Ф <u>У</u>
	#8									5
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC				Sky		
START	0930	be "	0-2		Clea	к. ГЭ	patchy	overcast	drizzie	shower
	10×10	69	0-2	6	Clea		patchy	overcast	drizzle	shower
	1130	70"	0-2	16%	clea	5	patchy	overcast	drizzle	shower
			1.		clea		patchy	overcast	drizzle	shower
					clea		patchy	overcast	drizzle	shower
					clea		patchy	overcast	drizzle	shower
END	1245	720	0-2	70% migh	clea		patchy	overcast		shower
			hilltops, ridge							
	(0)	· Control		,	opo, <u>con o,</u>	<u></u>	Doidy Conc	,(0,0,1,000,0	Canoacin	
		Butterfi	y Species					Tally		Total
Sara	OYOUN	Je hp	,			湘江	W 1			il
Arm	61 10					JKI.				10
Pern	VIVI T	civstreak				M				Ø
	1 ethin	<u>, , , , , , , , , , , , , , , , , , , </u>				11	<u> </u>			2
		WORK				M				5
FUNCE	ad Da	KVINING				JH1	1			$\overline{\varphi}$
Painte	d Landy	KYWING SWIFW				1				1
1///t/dev	thered	SURAND				1			-	
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
NEARCI	point/ host plant	Antwinnin nattes 3 governd buckwheat
Nector	ou.nt/lost plant	504 Collinsia in shorte of chamile
NECDOL	Pint Most plant	3 (ordylanthus spinutin chack in asphult
NBCD02	point/host plant	5+ cordylantus sprivte along road, godfields
	10 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -	
		·

Page <u>2</u> of <u>2</u>

Recorder:	M. He	eath	Add'l	Person:	Josh	Paija	Date: _	3/29/	10
Project:	Campo	Wind Energ	v Project	Map #: _	18/8		_ Survey Sx	:n:	
GPS Unit	4			,	QCB Prot	ocol Survey#	!	of	5 .
	24-hour)	Temp (F°):	Wind (avg/max)	% CC		2	Sky		
START	11:00	73.(	2.9 / 5.8	0%	clea		overcast overcast	drizzle drizzle	shower shower
	12.00	72.2	20/5.6	0%	(clea	<u> </u>	overcast	drizzie	shower
	13:30	77	2-3/5-3	00	clea	r patchy	) overcast	drizzle	shower
	16:00	72	5.7/14.9	00	clea	r patchy	overcast	drizzle	shower
			. •		clea		overcast	drizzle	shower
END Habitat On	-site (circle)	nen soils	l hilltops, ridges	rock outco	clea		overcast old roads	drizzie	shower
i labitat Oil	-site (circle)	pperi solis	riiiiops, nages	, IDOK OUIC	OP8, 3011 CI	usts, gay son	s, <del>carriagadas,</del>	vancuis iic	
		Butterfi	y Species		-		Tally		Total
Sanc	Orange	Tin				H H ML	H+ H+ 1	1	27
50x 14 9		7		, ·	. 3	M III			9
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Green	heirste					HHL H	וו שר וו	4.	23
Blue &						111	19 11 11 11 11 11 11 11 11 11 11 11 11 1		3
<b>~</b> .	Lina 30	3				1			1
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Dul gibrah						No. NO. NO.	e in		18
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		Frodin Gowe
		Mustand (sould) "
		Fiddleneck "
_	18	Baby blue eves "
		Pogan
	J. C	DTSP/SCJA/TUVY/4000 PECKER SP?
	1/0.1	Gold Dield > ""
		Duc's "
		Wild everybe 4
3 4		Creamed flower "
	The grant of the same	Uh. Ze than cecentles "
	***	Cald. Popos
MHPCOI	Seative 80 /	Jewel Davel notion Paysons and_
13	0 (	" I co comple/pinh same location Shere
		man plant & area of NE rup 18
		pocked gopher & coude sign
MHHLOZ	Horned lizard	Large Mao 8
	. * 4	Mexica Monglenta floria
		Scrub oak Monoring
MHHL 03	1 1	Smell-Tul Map 8
		Purple lupine - l'ag pours - Stry
		Spins Izand
TOTAL NUM	BER OF QCB DE	TECTED: O INDIVIDUALS

Page 2 of Z

Recorder:	Dale	Powell	Add'l	Person:(	Judi Bat	ely		Date:	3/29/	10
Project: _	Campo	Wind Energ	y Project	Map#:_	11			Survey S	xn:	
GPS Unit					_ QCB Prot	ocol Sur	vey#_	1	of	<u>5</u> .
TIME (	24-hour)	Temp (F°):	Wind (avg/max)	% CC				Sky		
START	9:30	62°	1/5 5	0	Clea	pat pat	chy	overcast	drizzle	shower
	11.00	750	5755		clea	pat	chy	overcast	drizzle	shower
	12:00	200	48 50	2011/2	clea	r pat	chy	overcast	drizzle	shower
	13:00	770	7/11 Sw	. १	clea	r (pat	chy	overcast	drizzle	shower
	17.00	300	<u>6/10 Sw</u>		clea	r ƙat	chy	overcast	drizzle	shower
	15:00	760	6/1254		çlea		chy	overcast	drizzle	shower
END	16:20	75°	510 547		clea		chy	overcast	drizzle	shower
Habitat Or	n-site (circle)	open soils,	hilltops, ridges	s, reck outc	rops, soil cr	usts, cla	y soils,	old roads	, various ne	ctar sources
		Butterfly	/ Species					Tally		Total
50.	Marie Our	· ·	Λ			11-1	المهمرة التنظيم	THE ATT	417 447	7
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		Amounkia
		Cvy ptontha
		Eradium
		Los Thomas
		Mustava ?
		101151000 v
		Wiola
		Crountbus
		Color Person
		Bally Glass
		Mayoute
		Carron
	-	

Page <u>2</u> of <u>2</u>

## Quino Checkerspot Butterfly Protocol Survey Field Data Sheet Louis Connil y Tignial Add'l Person: Andrew Fisher Date: 3/29 Project: Campo Wind Energy Project Map #: 16

QCB Protocol Survey # _____ of ___ 5

Survey Sxn:

T184T (0.4 b )	T (F9).	Wind	8/ 66			01		
TIME (24-hour)	Temp (F°):	(avg/max)	% CC			Sky		
START 015	60	0	<u> </u>	Clear	patchy	overcast	drizzle	shower
01015	60	0		clear	patchy	overcast	drizzle	shower
1115	76	0-5	0	clear	patchy	overcast	drizzle	shower
1215	78	0-6	J.O	clear	patchy	overcast	drizzle	shower
1315	79	0-6	40	clear	patchy	overcast	drizzle	shower
1415	81	8-7	Lio	clear	patchy	overcast	drizzle	shower
END 1515	74	a-5	5	clear	patchy	overcast	drizzle	shower

GPS Unit: # 7

Habitat On-site (circle): open soils, hilltops, ridges, rock outcrops, soil crusts, clay soils, old roads, various nectar sources

Butterfly Species	Tally	Total
Perplexing Hairstreak	HILLANDIA WILL	29
Painted Lady	uit	5
Marble/spring White	HICHIMANIA -	24
Funerial Duskywing	CHUH	10
Savah Ovange T.D	THE WALLAND	24
Unid Dusk		5
Spring Azure		2
Pale Swallowtail	1	<b>a</b>
Common white	(	1
Brown Elfin	+1111	5
Tortoise Shell	1	2
Gabbs? / Underwing moth?	1	2
Behra Metalmark	MII	4
Acmonblue		4
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Homed Lizard APHLOT

MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
APHLOI	Sensitivesp Point	Horned Lizard - juvenile
APHLOZ	)	11
APHLO3		<b>)</b>
SPHL04		· (1) · · · · · · //
APBJ 01	V	Blacktailed Jackvabbit
		Ceanothus conentus blooming
		Arabis SP 11
		Erodium cicutavium 17
		Namophela menz 1
		Cryptantha sp. 11
		Lasthenia sz. Just starting
		Lathrys SP " "
		EAGNY 37
·		
		Bird: HOLA, CORA, INEKI
		WEBC, BUSH, BTSP
		CAVI, NOI 5
•		
		Sochler Rotto Snake, Side-Hote
		Fense Litard, Gravite sping
		WERRO
TOTAL NUM	BER OF QCB DET	TECTED: INDIVIDUALS
		Page Zof 2
		PageOt

			Quino Chec		utterfly Prot ata Sheet	ocol Survey	1		
Recorder:_	DAVID:	K FAUIKN	er Add'i l	Person:	Evgene	266	Date:	3-29	- 2010
Project:	Campo	Wind Energy	y Project	_ Map #: _	23	1	_ Survey _: Sx	kn:	
GPS Unit :	5				_ QCB Proto	col Survey#	_1	of	5 .
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	0900	69	1 mpg	Ø	cleâr	patchy	overcast	drizzle	shower
	1000	7-30	1	Ø	Clear	patchy	overcast	drizzle	shower
	1100	780	1	Ø	(clear	patchy	overcast	drizzle	shower
	1200	910	(	Ø	clear	patchy	overcast	drizzle	shower
	1300	83	5	50%	clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
END					clear	patchy	overcast	drizzle	shower
Habitat On	-site (circle)	open soils,	hilltops, ridges	ock outc	rops, soil cru	sts, clay soil	s, old roads	, various ne	ctar sources
		Butterfly	/ Species				Tally		Total
α «	2.01								257
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PLANTS. Map #23 Composites (goldsfields) Congetante Gradium. Baby blue eyes General Amsinckia + Hondizard MARK CALI 115 0560872 DEHLOL UTM 36105 48 OCB ; - Q

page 2 of 2

	Campo	Wind Energy	/ Project	_ Map #: _	20		Survey S	kn:	2202
PS Unit	5_				QCB Proto	col Survey #	(	of	5
TIME (	24-hour)	Temp (F°):	Wind (avg/max)	% CC	T T		Sky		
TART	1400	9,18	2404	50	clear	patchy	overcast	drizzle	shower
			-		clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
200,12					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
5000	817				clear	patchy	overcast	drizzle	shower
END	1500	86	5 44	Ø	clear		overcast	drizzle	shower
bitat Or	n-site (circle	): open soils,	hilltops, ridges	, rock outc	rops, soil cru	sts, clay soils	s, old roads	, various n	ectar sourc
		Butterfly	Species				Tally		Tota
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						Audient vier			i
	perpley	<u> </u>							+
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)						
#20		Gadfields						
		popos						
		Geddiolds  poppies  Crytack						
		.9						
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TOTAL NUMBER OF QCB DETECTED: ______ INDIVIDUALS

Page 2 of 2

Recorder:	DAUET	) K. FAWI	Add'l	Person:	Eugens P.	واط	Date: _	29 H	42201D
					- 21 <u></u>				
GPS Unit	5_				QCB Protoco	Survey#	g g	of	5 .
TIME (	24-hour)	Temp (F°):	Wind (avg/max)	% CC		25 1	Sky		
START	1500	81	5	Ø	clear	patchy	overcast	drizzle	shower
				7	clear	patchy	overcast	drizzle	shower
					clear	patchy		drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast		shower
					clear	patchy	overcast	drizzle	shower
END	1600	62	(5	Ø	Clear	patchy	overcast	drizzle	
				<u> </u>	rops, soil crust				shower
, idolitat o	. 0.00 (0.1010)	,. opon cono,		o, rook oato	opo, oon ordon	o, ciay sons	, old rodds,	various ne	otal sources
		Butterfly	Species				Tally		Total
€.	h. Litta	· .							3
Α.	SARA			-					1 2
En		o (bo	20 ³ )						1)
	mivus -	7 (3)							
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
21		- Goldfields
		comptail.
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TOTAL NUM	BER OF QCB DE	TECTED: 💹 🥦 INDIVIDUALS

Page <u>2</u> of <u>2</u>

Recorder:_	MARC	SIEMUL	-LIGANAdd'I	Person:			Date:	3.30.	10
Project:	Campo	Wind Energ	y Project	Map#:_					
GPS Unit :	<u> </u>			-	QCB Prot	ocol Survey#	Throndon	of	<u>  5                                  </u>
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		*
START	1040	7	3-6	5	clea	r patchy	overcast	drizzle	shower
	1205	73	4-6	0	Clea	patchy	overcast	drizzle	shower
	1335	73	4-7	0	Clea	r patchy	overcast	drizzle	shower
	, i	,			clea	r patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
END					clea	patchy	overcast	drizzle	shower
Habitat On	-site (circle)	: open soils,	hilltops, ridges	rock outc	rops soil cr	usts, day soils	s, old roads,		ctar sources
	, ,								
		Butterfly	y Species				Tally		Total
Behr	s Metal	mark				TTH- ///	İ		9
Perol	exing	tairstre	ak			HH 111			8
Cara	's Oran	or Tis				Mr I			6
(s)	- JAIL	7	· · · · · · · · · · · · · · · · · · ·			1			Î
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
MMCSOI	rare plant pt	Caulanthus simulans - scattered on to 2
MMMOI	rare plant pt Schsikveheppt	Horn Cizard -1
-3	1 1	
	Nectar Sources	Pectocarya liacanis Amsinkia menziesii
		Pectocarya lincans
		Amsinkia menzesij
		Cercocarpus Keinek Autor betuloides Erodium cicutarium
		Erodun cicutarium
		Escholtzia sp?· Nemophila menzics;
	,	Nemophila menzics;
		(Lastnenia only in bud at site)
		O -
MMEPOI	polygon	should be excluded. Toodense w/ too
		small of an opening. Did survey for QCBHI-
MMEPO2	polygon	should be excluded ble too dense
		small and very steep of DG. Did not see
		small and very steep of DG. Did not see
		any butterfies in habitat. Did survey for
		QCB#1.
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	· .	
	BER OF QCB DE	TECTED: O INDIVIDUALS

Page 2 07_

Project	Campo	Wind Energ	y Project	Man #	1		Survey S	vn.	30/10
Project.	Campo	VVIIIG CHEIG					7.6		
GPS Unit		(			QCB Protoc	ol Survey #	<u> </u>	of	5
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC	- 1		Sky		
START	12:35	670	911	0	Clear	patchy	overcast	drizzle	shower
	13:30	720	47	0	clear	patchy	overcast	drizzle	shower
	14:30	680	7/1	0	Clear	patchy	overcast	drizzle	shower
	1200	700	8/15	0	clear	patchy	overcast	drizzle	shower
	16:25	650	5/9	0	clear	patchy	overcast	drizzle	shower
1					clear	patchy	overcast	drizzle	shower
END					clear	patchy	overcast	drizzle	shower
Habitat On	-site (circle):	open soils,	hilltops ridges	rock outcr	ops, soil crust	ts, clay soil	s old roads	yarious n	ectar sources
			Species				Tally		Total
Perple	(IN)					14	1		
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGO SPECIES LIST (NECTAR SOURCES, GEN	OS AND GPS POINTS/ ERAL WILDLIFE LIST)
		Baby Blues	
		Erodium	
	·	Mystad?	
		Manzanita	
		Call Bappy	•
		Municiakia	
		Capitaning	
		7/9	
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DPBJOIR			V
OPISTOI	Dorat	Black to lad Sork RollIT	,-
068205	T. ot	Black tailed Sack Raphot 10 Black-tailed	T 1 2 1 1
	3(7)	Diece faire	SCIE POUDIT
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		- Water	
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OTAL NUMB	ER OF QCB DETE	ECTED: Ø	INDIVIDUALS
	Р	age <u>2</u> of <u>2</u>	

Recorder:	μ.	Heath	Add'l	Person:	-ew13 (	Conmolle	1 Date:	3/30	/10
Project:	Cam	Heath po Wind Energ	y Project	Map #: _	8,7	1	<i>)</i> _Survey _: S:	/ xn:	
GP\$ Unit :	_5				/ QCB Prot	ocol Survey#		of	5
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	10:30	63.5	4.5/7.2	10%	Clea	patchy	overcast	drizzle	shower
	12:30	(6.0	8.7/12.4	20%	clea		overcast	drizzle	shower
	14:30	64.7	15.9/19.6	10%	clea	r patchy	overcast	drizzle	shower
	16:00	60	15.0	10%	clea	patchy_	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
END	16 7	3	1.201		clea		overcast	drizzle	shower
Habitat On	-site (circ	le): open soils,	nilitops, ridges	s, rock outer	rops, soll cr	usts, clay solls	i, old roads,	, various ne	ctar sources
		Butterfly	/ Species				Taily		Total
Oruga	40-	Scare				MMMI	·		16
Parall	11	Q.	· '			This			1
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Green	Nois	Ica le				MMMH		HH 1	37
Blue of		NT WY				1	is in 10 this	<u>                                  </u>	2
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Drsky	37/100					WE THE THE	11		ווי
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST
		tich chillage
		Baby blue eyes & - Means Howers
		produm 1 A
		Buch brush *
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		Fiddlineck A.
		Pope Cru X
		Schal CAQUIAn CR
		Gold Kells X
·		Cald Poppy &
MHHLOY		Hernel Lizard juvenile
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06		(C C( ))
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		Blue Lipio straly 1x
		Monda Mahigan
MHEP260	Excluded foly	Dese Chapana
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TAL ALLIAD		FOTED A BIDDON
OTAL NUMB	ER OF QCB DET	ECTED: $\mathscr{O}$ INDIVIDUALS

Page 2_of 2

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Project:	Campo	Wind Energy	/ Project	Map #:			Survey S	xn:	
GPS Unit:			TO THE RESERVE OF THE PERSON O		_ QCB Prote	ocol Survey #	1	of	5
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC		Swa	Sky		
START	15:30	610	48	10	clea	Charles and the Control of the Contr	overcast	drizzle	shower
	(x):(x)	700	8/10	0	Clea	patchy	overcast	drizzle	shower
					clear	r patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear		overcast	drizzle	shower
					clear		overcast	drizzle	shower
END Unbited On	oito (oirolo):	and asia	hilltone dista	no all alla	clear		overcast	drizzle	shower
Habitat On	-site (circle):	open sons,	hilltops, ridges	, reck outc	rops, son cri	usts, clay soils	, eld roads	, various ne	ectar sources
		Butterfly	Species				Tally		Total
Para	lavio					HT 1			6
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Description (Continue)  (Conti	MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
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Fautomen Munula Cold Favor Amelin			Exactive 2
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	Dr. Paris		
		7-7-7-7-1-4-1-4-1-4-1-4-1-4-1-4-1-4-1-4-	

Recorder:	BRIA	NLOUS	112011 Add'i	Person:	Phillip	(Escor	Date:	3/30/	10
Project:	Campo	Wind Energ	y Project	Map#:_	16		_ Surve <b>y</b> Sx	kn:	<u> </u>
GPS Unit	<u> </u>	,		· ·	QCB Proto	ocol Survey #		of	5 .
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	1040	6(, 4	5-8 494		clea	patchy	overcast	drizzle	shower
	1140	65	6-10	0%	clea	patchy	overcast	drizzle	shower
	1240	67	4-7		€ lea	· · · · · · · · · · · · · · · · · · ·	overcast	drizzle	shower
	1400	69	6-8		clea	patchy	overcast	drizzle	shower
·	1500	to	20		clea		overcast	drizzle	shower
	1600	64	5 7		deg e	*3	overcast	drizzle	shower
END Habitat On	(@ (O	(apprisoile)	S-(0 hilltops/ridges	Anck outc	dear		overcast s old roads	drizzle	shower ectar sources
1 labitat Off	-site (circle)	. epen sons	militors, ridges	F TOOK OUTO	,000,0011011	uoto, olay coll			And the State of t
		Butterfly	y Species				Tally		Total
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				(50)		MW	i		11
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
190		HOLA
		CORA
		Scia
		WEIL
		Oati
		Hofi
		Saph
		RTHa
		Lasp
		Anlau
		SOTO
		Wren
		NUWO
		BCSP
		Leap
		California pad borrae (likely)
		Side-blotch Lizard
		Granite sping Lizare
		W. Fence Travel
		Striped racer
		CA ground Squirel
		Cotton tail
SLHLOI	Pure Species	Coast horned 1, zard
BLHLOZ	11	Coast horned Lizard
3LPJOI	Pare plant	Payson's jewel flower Zindiv.
3LP102	14.	11 40 india
3LPJ03	*1	1 10 indiv
		Vector Sources: epolium, Sevecio Cal,
		Laythenia Cal, popisera flower Amsinteia
	4	semphila Beachura, corcocorpus, dejert darle
	ER OF QCB DETI	a DOPPY Carnissonia, Warranty
PLAL NUMB	ER OF QCB DET	ECTED:

Page 2 of 2

Recorder:	Down	ik. FAUIKN	<u>Lev</u> Add'		ata Sneet	I said	Date:	: Rapr	L ZotA
			y Project			•			
	8						#_2		
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		· · · · · · · · · · · · · · · · · · ·
START	1000	68	S	Ø.	Clea	r) patchy	overcast	drizzle	shower
	1100	69	6	Ø	clea	patchy	overcast	drizzle	shower
	1280	72	7	6	clea	r) patchy	overcast	drizzle	shower
	1300	77	O	Ø	clea	patchy	overcast	drizzle	shower
	*				clea	r patchy	overcast	drizzle	shower
				-	clea		overcast	drizzle	shower
END		78	S	Ø	Clea		overcast	drizzle	shower
Habitat On	-site (circle)	open solls,	nilitops, (lidge	s trock outer	gps, soil cr	usts, clay so	oils, old foads	s, various ณ	ectar sources
			Species				Tally		Total
P. A.	Cmon								6
Α. \	Virgulti.								254
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		liforica							2
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIS
. 15	GPS: MATK!	Collensia
		coldfields
		Comptatle
		Composites
		Sugar bush Amsinekeas
		Musta 1
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Recorder	DAVID	K. FAUI	KN347 Add'I		Luis Com	len	Date:	_13 APR	WE 2010
			y Project		2.00	4			
GPS Unit	:_9_		1		_ QCB Prote	ocol Survey	/#_7?	of	5 .
TIME (	24-hour)	Temp (F°):	Wind (avg/max) -	% CC			Sky		
START	1100	પજ	-3	ø	clea	patchy	overcast	drizzle	shower
	1200	550	2	Ø	clea	patchy	overcast	drizzle	shower
	1300	58°	2	>5%	Clear		overcast	drizzle	shower
	1400	64	3	>5°/5	clear	patchy	overcast	drizzle	shower
	1500	55°	હ	> 10	clear	patchy	overcast	drizzle	shower
	,				clear		overcast	drizzle	shower
END	1600	52	9	>10	Clear	patchy	overcast	drizzle	shower
Habitat Or	n-site (circle)	: open soils),	hilltops ridge	s tock outo	rops), soil cru	usts, clay s	oils old roads	yarious €	ectar sources
		Butterfly	Species				Taily		Total
Es	Chlos h.	Lotta							15+
C.	perplan	A							3
	Vinques								. 8
Ar	newwood	المالح			-20				1
	Acmon					-110	4		10
	Sisymb								2
11	dia -	( An	neady	\					1
c.	qubsii	1 //1	vi cading,						1
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIS
F25	CAMPO-R	
		Crypton Tha Goldfields
		1 Ci 2
		Sugar Bush
		BASG Blue Eyes WAII flower Viola sp
		WAILFlower
		Viola sp.
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Page #2 of #Z

Recorder:	Dalo	Parel	Add'l	Person:	Suringe	Mc Me	Date:	4/3	./10
Project:	Campo				_ ′		Survey:S	· ·	
GPS Unit :		3			QCB Prot	ocol Survey	#	of	5 .
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	10:50	590	8 12	0	clea	r) patchy	overcast	drizzle	shower
	12:10	60°	10/17	2	ofea		overcast	drizzle	shower
	12:45	62°	715		clea		overcast	drizzle	shower
					clea		overcast	drizzle	shower
					clea		overcast overcast	drizzle drizzle	shower shower
END			· · ·		clear		overcast	drizzie	shower
	-site (circle):	open soils.	hilltops, ridges	saroek outc			oils, old roads,	Carlotte of the Control of the Contr	
	`	•			yang 3 ang				
	· · · · · · · · · · · · · · · · · · ·	Butterfly	Species				Tally		<u> Total</u>
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS SPECIES LIST (NECTAR SOURCES, GENER	AND GPS POINTS/ AL WILDLIFE LIST
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		Bold Cagle Security I	125
		Brds 120	
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TAL NUMBE	R OF QCB DET	FCTED:	VDIVIDUALS

Recorder:	DAVIC) Fue	TUER Add'I	Person:	LQ	270		Date: _	4/2	10
Project:	Campo	Wind Energ	y Project	Map #: _	19			_ Survey Sx	n: <u>Cam</u>	po - 0
GPS Unit :	2		3 7 F	<u> </u>	QČB	Protoco	l Survey #	2	of	5 .
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC				Sky		
START	1045	63	Ú-2	Co	• ′ (clear	patchy	overcast	drizzle	shower
	1420	75	0-2			slear	patchy	overcast	drizzle	shower
			ر څهري کې	7.		clear	patchy	overcast	drizzie	shower
						clear	patchy	overcast	drizzle	shower
		a street of	n de la composition de			clear	patchy	overcast	drizzle	shower
		1.4.1				clear	patchy	overcast	drizzle	shower
END	16.35	ما ما	2-5	10-	I GW	lear	patchy	overcast	drizzle	shower
	-site (circle)	open soils,	hilltops, ridges	, rock outer	ops so	oil crusts	s, clay soils	s, old roads	various ne	ectar sources
	EST SELECT		1 34 h 34 h 34 h				. :		-	*
		Butterfly	y Species	4				Tally		Total
. [Brambol	a hai	row	* **		ſ	X (X):	Tally	ه ۱۰ چاري ک	24
	$C \cdot I \cdot I \cdot c$					-	(X) C			7-7
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
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		Cry Stantha int
		Amsinck menz
		Camissonia 3D.
		Planishotrys so.
		La Trania Cal
		annual lotus SP.
	Doint	Esch scholte in minut
DF462	Collingia heter	o ~ 20 plants, ~ 3 ft 2
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TOTAL NUMBER		TECTED: INDIVIDUALS
TOTAL NUM	BER OF QCB DE	IECTEDINDIVIDUALS

Page 2_ of 2_

Recorder:	Dak	Pacuel	Add'	l Person: ∑	Phillip (or pre	Date:	41	2/16-7
Project:	Campo	Wind Energ	y Project	Map#:	10,1	5,16	_ Survey Sx	m:	
GPS Unit :		3			QCB Prote	ocol Survey#		of	5
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	1140	630	1/3	0	cléa		overcast	drizzle	shower
	13'00	64		0	çlea		overcast	drizzle	shower
	17,00	690	418	0	cléa	X	overcast	drizzle	shower
	15,00	450	- 4	1 0 -	clea		overcast	drizzle	shower
	1600	\$90	58	0	clea		overcast overcast	drizzie drizzie	shower shower
END	T-	~ '	- 010	$+ \circ$	clear		overcast	drizzle	shower
	-site (circle):	open soils,	hilltops>ridge	s rock outc	40	usts? clay soil			
	•								
		Butterfly	Species			1,127	Tally		Total
San	24			·	<u>:</u>	HTI			6
Can	use WI	ut							3
Ball	نها			HI HI	HI HT	HH HL	HH HH	HT 141	50
4.	\ -					HT HI	HT Ht	\(I	23
100	$\mathcal{A}_{\mathcal{U}}$.						,		
Cla	ec Kirsp	<u>, † ?</u>							1
(f)	15	Botterfly				U			T_2
	1000	vallowit	-1			1)			1 2
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIS
		Coupthantha-microtha
		Exam
		Mostard?
		LoTus
,		Unknown composite
		Perperto
. '		Descurvania
		Caulen Thus
		DI 1 7 10
		Plagia bethris Amonnakia
		Cranot hus
		h al D
· ·		DeckkoTomma
		Alabis
		MANA ANA MAAANA A
55((())		MAHAMARAKA
SECOL		Cankouther simulans for
25.005		<i>R</i>
25 (20)		,,
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Other Pout	3	
Don't Count		
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TAL NUMBI	ER OF QCB DETE	ECTED: INDIVIDUAL

Page Z of Z

Recorder: Gretchen Cummings Add'l Person: Josh Date: 4/2/10										
Project:	Campo	Wind Energ	y Project	Map #: _	19			_ Survey Sx	cn:P	
GPS Unit :		***************************************	· · · · · · · · · · · · · · · · · · ·		QCB Prot	ocol	Survey#	_2_	of	5 .
TIME (24-hour) Temp (F°): (avg/max) % CC Sky										*************************************
START	1040	<i>u</i> (e	3.3/4.9		clea		patchy	overcast	drizzle	shower
	1930	68	3.815.4		clea	<u>D</u>	patchy	overcast	drizzle	shower
					clea	г	patchy	overcast	drizzle	shower
					clea	r	patchy	overcast	drizzle	shower
					clea	Г	patchy	overcast	drîzzle	shower
		. ~			clea	_	patchy	overcast	drizzle	shower
END	1945	<u>89</u>	3.8/5.4		clea		patchy	overcast	drizzle	shower
Habitat On	-site (ci r cie)	: open solls,	hilltops ridge	rock outer	ops soil cr	usts,	, clay soils	s old roads	various ne	ctar sources
		Butterfl	y Species					Tally		Total
Vanes	59 OM	cardui	(Painted	Lady)	\	U	411			7
•			(Pearly		,	1	Ш			5
			ulti (Morma				HT IH	•		12
			(Dos				11			3
			Acmon							1
_	_		(Spring			1	1			a
Colia	s harfor	d;;	(Harfor	d Sulah	· r \	1	•			1
			(Common			111	1			3
-			(Green	\ 1	U . 1	nı				.3
	F			11-11-011-0		100				
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
GC	Neotoma Upida nest	Desert Woodrat nest
GC	Neotoma Lepidanest	Desert Woodrat nest
GC	Neotome lepida nest	Desert Woodrat nest
		ANHU
		NOFL
·		TOVU
		SPTO
		WEST
		RSHA
		CAQU
		BGGN
		BUSH
		CATH
		Howr
		OATI
		ACWO
		CORA
		Sceloporus arcutti 11
		Uta stansburiona IIII
		Plagiobothys sp.
		Cryptantha sp.
		Lasthenia sp.
		Nemophila menzeisii
		Amsinckia menzeisii
		Pectoconya sp.
		Erodium cicuterium
		Lupinus bicolor

Page $\frac{\partial}{\partial}$ of $\frac{\partial}{\partial}$

Recorder: Gretchen Cummings Add'l Person: Tosh Date:									4/21	10
Project:	Project: Campo Wind Energy Project Map #:							Survey Sxn	<u> P</u>	
GPS Unit					QCB Prot	ocol	Survey#	2	of	5 .
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC		÷		Sky		
START	1245	1245 48 3.815.4 Clear patchy overcast drizzle								shower
					clea	r	patchy	overcast	drizzle	shower
]	clea	r	patchy	overcast	drizzle	shower
					clea		patchy	overcast	drizzle	shower
					clea		patchy	overcast	drizzle	shower
	15116		. 10 2		clea	_	patchy	overcast	drizzle	
Hahitat On	-site (circle)	CO Copen soils	, hilltops, ridges	Frock outc	clea		patchy	overcast	drizzle	shower
Habitat Off	i-site (circle)	, open sons,	, Timtops, Mages	STOCK OUIC	ODS, SOII CI	นอเอ	, clay solis	Old Toads) V	anous nec	iai sources
		Butterfl	y Species					Tally		Total
Vones	isa card	vi (Paini	led Lady)			11				a
Callo	phrys a	ffinis	(Green)	Harrstrea	K)	111				4
						14	T 11			
Euchloe by antis (Pearly Marble) 14111 Apademia mor no virgulti (Mormon Metal mark) 1411 141 141 141 141 1411									30	
			(Dusk			11				a
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Engo	nis funs	erelis			•)			-	
Callo	phous a	zunitzugu	(Bro	on Elfin	\	1				1
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	SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
	Sceloporus orcutti 1
	ANHU
	CORA
	BUSH
	OATI
	Uta stansburiana 1
	Thomomys botter holes
	Sylvilagus auduboni 11
	Plagiobothys sp.
	Cryptanthe sp.
	Lasthenia sp.
	Nemophila menzeisi:
	Amsinckia menzejsii
	Tonsy Mustard (Descuraia sp.)
	Pectocoge sp.
	Erodium cicutarium
	Lupinus bicolor
	Eschecholzia californica (California Poppy)
	Cream Cups
·	
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Page $\frac{\lambda}{2}$ of $\frac{\lambda}{2}$

Recorder:_	DAULD	S. FAULKI	Add'l l	Person:	Guyene Pal	olo	Date:	2 APC	UL 2010
Project:	Campo	Wind Energy	y Project	_ Map #:_	23	×	Survey Sxn:@		
	_8				QCB Protoco				
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC	T	1 4	Sky		
START	1600	670	9 mph	\$	(clear)	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
VII.					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
				water energy and	clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
END	1300	650	9 mph	Ø	clear	patchy	overcast	drizzle	shower
	-site (circle)	open soils.	hilltops, ridges,	rock outc					
							•		
		Butterfly	Species				Tally		Total
Antho	hais Sar	-a							2
		k							4
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Vanes	YA CAT	فسنــــــــــــــــــــــــــــــــــــ							
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST						
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		Bak Bleen						
· ·		Baby Blue eyes Amsuchia						
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Recorder:	aiva a	K. FAULK	CA_	Add'l	Person: _	-ugene	PAS	(B	Date:	2 APR	11 2010
Project:	Campo	Wind Energy	/ Project		Map #: _	22	22 Survey Sxn: CAMPO 4				0 8
GPS Unit :	GPS Unit :							Survey #	2	of	5
			Win	d	············						
	24-hour)	Temp (F°):	(avg/m		% CC				Sky		
START	1300	ଓର୍ଚ୍ଚ		للنة	<i>\$</i>	Cle	•	patchy	overcast	drizzle	shower
	1400	690	<u> 4</u>	45	Ø	Cle	200	patchy	overcast	drizzle	shower
	1500		9	w w	<u>4</u> Ø	Cle		patchy	overcast	drizzle drizzle	shower
	1600	97°		اننا	φ	cle		patchy patchy	overcast overcast	drizzle	shower shower
						cie		patchy	overcast	drizzle	shower
END						cle		patchy	overcast	drizzle	shower
	-site (circle)	open soils	filltops,	ridges	ock outc				old roads	various pe	ctar sources
		Butterfly	Specie	s					Tally		Total
P. 55	mbei		(Spr	ina	White	2)					1(
	554 5 P		Clad								
l .	andii				<u> </u>	w)					a
A. U	A. Vingueti (B. Metal)										3
A - 5	ATA		(C / C / C	Ca C	(Senarce	ı					8
	justi s		(Yea	4/4							<u> </u>
C. A.	egustina	•	<u>(B. 8</u>		/						3
E fu	molis_				Jesty)		-				
E. b.	570.	1	(Sle	- 174	Disky	(3
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
22		Amsindkia
		constatte
		Cryptaft Poppies Liepines
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TOTAL NUMBER OF QCB DETECTED: Ø INDIVIDUALS

Recorder:	DAWID	C. FAUIKNEY	<u> </u>	dd'l P	erson: <u> </u>	ugene Pat	<u>a k</u>		Date:	2 APRIL	2010
Project:	Campo	Wind Energy	y Project		_ Map #: _	26			Survey S	xn: <u>(ค</u> ผย	0 O
GPS Unit	<u>&</u>					QCB Proto	col	Survey#_	<u>کــــــــــــــــــــــــــــــــــــ</u>	of	<u>5</u> .
TIME (2	24-hour)	Temp (F°):	Wind (avg/ma	x)	% CC				Sky		
START	1030	59°	3mp	انت	- Ø	Clear		patchy	overcast	drizzle	shower
	1100	66	<u> </u>	í	Ø	clear		patchy	overcast	drizzle	shower
	1200	12	Ø		Ø	Clear	5_	patchy	overcast	drizzle	shower
	1300	68	5	ن	Ø	cléar	5_	patchy	overcast	drizzle	shower
						clear		patchy	overcast	drizzle	shower
						clear		patchy	overcast	drizzle	shower
END						clear		patchy	overcast	drizzle	shower
Habitat On	-site (circle)	open soils,	hilltops (i	dges,	ock outc	rops, soil cru	ısts,	, clay soils			ctar sources
		Butterfly	Species						Tally		Total
Euchl	re bisantis	ĭ									7
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A. VU	guste										1
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST
26		Comptanthy
		Amstudia
		Cryptantha Amstadia BAby blue eyes Basket Bush.
		Basket Bush
		3 \0.00 \
		Cas Still Spen Bil Career
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OTAL NUM	BER OF QCB DET	TECTED: Ø INDIVIDUA

Recorder:_	Margie	Mullin	Add'l	Person:			Date:	4.6.21	010
Project:	Campo	ر Wind Energy	/ Project	Map #: _	4		Survey S	kn:	
	9								
TIME (2)	4-hour)	Temp (E°):	Wind (avg/max)	% CC			Sky		
	1250	₹ 2.000	3-6(9)	// 00	clea	patchy	overcast	drizzle	shower
	1340			A	æfea	***************************************	overcast	drizzle	shower
	1420	63	<u>5-නි</u> 5-හි	Ö	Clea	<u>* </u>	overcast	drizzle	shower
					clea		overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
END					clea		overcast	drizzle	shower
labitat On-	site (circle)	open soils,	hilltops, ridges	s, rock outc	rops, soil cr	usts, clay soils	s, old roads	, various ne	ectar source
		Butterfly	Species				Tally		Total
Acmi	IN BUS		Species	,		11			2
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Pair	1/1	adis				1			1
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
MMADOI	scusificulant pt	Astragalus douglasii var. perstactus
,		East side of Manzanita Rd & regetative
		plants in deep granitic soils. Edge of redshant
		mostly Artemsia tridentata septodentata
		Very disturbed and probably cleared to repair
		drainage pipe.
MMAD02	Sensitive plantpt	Astragalus douglasii var perstricks
	, ,	West gide of Manzanita Rd. 9 vegetative
		plants in deep granitie soils. considering
		in Enogonum fasc Querras Xacutidas, (eanothus
		leviodemis. Edge of our riparian. Distribud
		area by road. & Artemisia Indentate
		J .
·	Nector Somes:	Pectocaya sp.
		Coy o tantra 3 p
		Amsonkta menziesii
		Lastnewia (very little!) gracilis
		Nemophila menziesii
·		
		
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TOTAL NUM	BER OF QCB DET	ECTED: INDIVIDUALS

Page __ of __

3420140 By 563710

Recorder:	Margi	C M VIII	gan Add'll	Person:	*		Date:	4.6.1	0
Project: _	Campo	Wind Energy	/ Project	_ Map #:	3		_ Survey S	cn:	
SPS Unit	:	1			QCB Protocol	Survey #	2_	of	5
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky	E 14	
START	1000	52060	5-9	0	Clear	patchy	overcast	drizzle	shower
0990	1167	42	1-4(8)	0	clear	patchy	overcast	drizzle	shower
	1210	63	3-6	_O_	clear	patchy	overcast	drizzle	shower
	100000	Section	-		clear	patchy	overcest	drizzle	shower
					clear	patchy	overcast	drizzle	shower
				70.5	clear	patchy	overcast	drizzle	shower
END					clear	patchy	overcast	drizzle	shower
abitat Or	-site (circle)	copen soils,	hilltops, ridges	, rock outc	rops, soil crusts	, clay soils	s, old roads,	various ne	ectar source
			Species				Tally		Total
		Hairsto			1.	#1			6
Propert	NSDUSE	I ung		HARRION					2
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
	Nector Source:	Lastnenia gracilis
	t -7 #	in Cryptanting micranting
		Donsinkia menziesii
		Nemophila menziesi;
·		Coreopsis californica
	• "	
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TOTAL NUM	BER OF QCB DET	ECTED: O INDIVIDUALS

Page 1 of 2

	۸.	6 - 8 A - 3	15 ach	_			D. (-	Z 4.	6.2010
Recorder:	Marg	IC MU	liga Addi	Person:	0	·	Date:	<u>eg 1</u>	0 2010
Project:	Campo	Wind Energ	y Project	Map #: _	8		Survey S	xn:	
	:	1		······································	QCB Proto	ocol Survey	#_2	of	5
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	1400	63	4-8	0	clear	patchy	overcast	drizzle	shower
	1522	63	4-8	0	Clea	patchy	overcast	drizzle	shower
					clear	r patchy	overcast	drizzle	shower
					clear		overcast	drizzle	shower
					clear		overcast	drizzle	shower
					clear		overcast	drizzie	shower
END Habitat On	-site (circle)	Onen soils	hilitops, ridge:	s rock outc	clear	patchy	overcast	drizzle various n	shower ectar sources
Habitat Oil	-site (circle)	open sons,	milops, nage:	s, rock outo	opa, aon on	asis, ciay o	Jilo, Old 10ddo	, 10/10/00 11	
		Butterfly	y Species				Tally		Total
Pav	olevin	a third	itealz			*Million p.		-	2
7,400	odust. v	of wing	110						4
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINT SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
	Noctar Sources	7
		Ceanotims geggl perplexans
		Crystanta micranta
		Andsigkia menzical
		Lasta nia gracilis
		3.72 3.74
MGJOI		Geraca Viscida. East side of Manzanita
	· · · · · · · · · · · · · · · · · · ·	Rd. 3 plants vegetative. Red Shank,
		Ceanothy 3 avega; 600 nerolevans Enimony
		Enscie Chamise Chamisa Champaral W
		Ceanothus greggissp. perplexans Eningonu. Fascic, Chamise Chamisa Chapparal W deep grantic soils. No impact but side
		road.
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Page 2 of 2

Recorder:	Sauce	K. FAUL	KNEY Add'I	Person:{	Eugene	Palolo	Date:	6 APRIL	2010
			y Project		*				
GPS Unit :	_8		· · · · · · · · · · · · · · · · · · ·		_ QCB Proto	ocol Survey #	‡ <u> </u>	of	
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	1400	64	8 KE		clear	r) patchy	overcast	drizzle	shower
					clear		overcast	drizzle	shower
					clear		overcast	drizzle	shower
					clear	r patchy	overcast	drizzle	shower
				<u> </u>	clear	r patchy	overcast	drizzle	shower
			· · · ·	 	clear	-	overcast	drizzle	shower
END	1500	650	9 NE	<u> C</u>	clear		overcast	drizzle	shower
Habitat On	-site (circle)): Open soils)	hilltops, ridges	i, rock outci	rops, soil cru	usts, clay soil	s, old roads	, various nec	ctar sources
		Butterfly	/ Species				Tally		Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)					
#17							
		Erodian Erodian					
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		Amarickia					
		Amswekia Bugar bush					
		-					
OTAL NUMBI	ER OF QCB DETE	ECTED: Ø INDIVIDUALS					

Page <u>42</u> of <u>24</u>

			Project		200					
	8		(V)							5
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% cc				Sky		
START	(000	5.3	7	\$	clear	pat	chy o	vercast	drizzle	shower
	1100	57	7	8	cleár	5 pat	chy o	vercast	drizzle	shower
	1200	63		Ø	Clear	pate	chy o	vercast	drizzle	shower
					clear	pate	chy o	vercast	drizzle	shower
		4	577.58.99		clear	pate	chy o	vercast	drizzle	shower
			7.46		clear	pate	chy o	vercast	drizzle	shower
END	1330	اعا	13	05	clear			vercast	drizzle	shower
Habitat On	-site (circle)	open soils,	hilltops ridges	ock outc	ops soil cru	usts, cla	y soils, Q	d roads	various	ectar sources
		Butterfly	Species					Γally		Total
Euci	doe hil	otta	1 11 3					10 72		2
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST						
23								
		Composites						
		Compotentia						
		C'ampte Ha Eradium						
		Mustand						
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	R OF QCB DETE	ECTED: Ø INDIVIDUAL						

Clear patchy overcast drizzle shows  Abitat On-site (circle): pen soils hilltops ridges rock outcrops soil crusts, clay soils, old roads, various nectar so	Project: _	Campo	Wind Energy	y Project	Map #:	21		_ Survey S	xn: <u>CAM</u>	PO N.
TIME (24-hour)  Start 1200 63 7	GPS Unit	8_		14.		QCB Proto	col Survey #	_ 2	of	5
Clear patchy overcast drizzle shows dear patchy overcast drizzle shows clear patchy overcast drizzle shows dear patchy overcast drizzle shows dear overcast drizzle shows	TIME (2	24-hour)	Temp (F°):		% CC			Sky		
clear patchy overcast drizzle shows the clear patchy overcast					X	clear	) patchy	overcast	drizzie	shower
Clear patchy overcast drizzle showed clear patch		1380	-61	13	0	Cléar	patchy	overcast	drizzle	shower
clear patchy overcast drizzle shower   clear patchy ove						clear	patchy	overcast	drizzle	shower
END 1400 L4 P Cear patchy overcast drizzle shows labitat On-site (circle): pen soils militops rock outcrops; soil crusts, clay soils, old roads, various nectar so Butterfly Species Tally T						clear				shower
END 14 CO LY R Gear) patchy overcast drizzle shower labitat On-site (circle): open soils militops midges rock outcrops; soil crusts, clay soils, old roads, various nectar so Butterfly Species Tally T						+			1 CHI O A CATA	shower
Habitat On-site (circle): ®pen soils militops (ridges) rock outcrops, soil crusts, clay soils, old roads, various nectar so  Butterfly Species Tally T  Gocycles 1. Little  A- SARA									1000	shower
Butterfly Species Tally T  Gochlee h. Litte  A- SARA		1400	64	8						shower
A- SARA	fabitat On	-site (circle)	epen soils	nilitops mages	s rock outc	rops; soil crus	sts, clay soil	s, cold roads	, various n	ectar sources
A- SARA			Butterfly	Species				Tally		Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINT SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIS
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TAL NUMB	ER OF QCB DETE	CTED: Ø INDIVIDUAL

oject: _	Campo	Wind Energy	Project	_ Map#:_	18	18		Survey Sxn:Cax	
S Unit	{	3		74	QCB Protoc	ol Survey #	_ 2_	of	5
TIME (	4-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
TART	1500	65	9	Ø	(cléar)	patchy	overcast	drizzle	shower
	Z-11-200				clear	patchy	overcast	drizzie	shower
					clear	patchy	overcast	drizzle	shower
		1			clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
500000 S	-				clear	patchy	overcast	drizzle	shower
END	1600	63	8	d	Clear	patchy	overcast	drizzle	shower
oitat On	-site (circle)	e open soils, i	nilitops, ridges	, cock outc	rops, soil crust	ts, clay soils	, old roads	various (	ectar source
		Butterfly	Species				Tally		Tota
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST						
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OTAL NOMB	ER OF QCB DETE	ECTED: Ø INDIVIDUAL	_{					

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			MOLT Add'							
Project:	Campo	Wind Energ	gy Project							
GPS Unit :	10		MDH		QCB	Protocol	Survey#	2	of	5
TIME (2	24-hour)	Temp (F°):	MDH Wihd (avg/max)	% CC				Sky		
START	1000	60	5-8	Clearo	2/10	clear	patchy	overcast	drizzle	shower
	1100	60	10-14	(lear)		clear	patchy	overcast	drizzle	shower
	1200	61	4-9	Clear		clear	patchy	overcast	drizzle	shower
	1300	-	4-7	Gear		clear	patchy	overcast	drizzle	shower
	1400	61	8-12	Clear		clear	patchy	overcast	drizzle	shower
	1443	62	7-12	Clear		clear	patchy	overcast	drizzle	shower
END	5					clear	patchy	over <u>çast</u>	drizzle	shower
Habitat On-	-site (circle)	: open soils	hilltops, ridge	s, rock outcre	ops, sc	il crusts	, clay soils,	, old roads,	various ne	ctar sources
		Butterfl	y Species					Tally		Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
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		Oati
		HOLA
		RTHa
		Welci
·.		Bush
BLCP02	Rare Plant	Campo Pea, (Lathras Splendan 5 individ
13LCP03	11	Campo Pla Individual
BLCP04	9	Campo Den Zindividuals
BLCPOI	4	Campo Pen, ind (previously mapped?) confirm
BLCPOT	, tı	Campo Pea Hindividudy
		Freumba milk retch? Not mapped, will be
		confirmed by botantists (S. meetry)

Page 2 of 2

Recorder:	Dwid	K. FNIKA	<u>معد                                    </u>	Person:	DANS HASON	ERIN	Date:	8 APR	2010
			Project						
GPS Unit :	8			**	QCB Protoc	ol Survey#	2_	of	5 .
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	1500	78	2_	\$	clear	) patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzie	shower
					clear	patchy	overcast	drizzle	shower
			41 to 1000000		clear	patchy	overcast	drizzle	shower
1561					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
END	1600	78	5	Ø	(clear)	patchy	overcast	drizzle	shower
Habitat On	-site (circle	): open soils,	hilltops ridges	s, rock outc	rops, soil crus	ts, clay soil	s, old roads,	various@	ectar sources
		Butterfly	Species				Tally		Total
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TIME (	24-hour)	Temp (F°):	Wind (avg/max)	% CC	1		Sky			
START	0900	1000	7 mph	\$	Clear	patchy	overcast	drizzle	shower	
	1000	68"	5	¥ Ø	clear	patchy	overcast	drizzle	shower	
- 1200					clear	patchy	overcast	drizzle	shower	
1.1				a en	clear	patchy	overcast	drizzle	shower	
					clear	patchy	overcast	drizzle	shower	
					clear	patchy	overcast	drizzle	shower	
END			+:		clear	patchy	overcast	drizzle	shower	
	n-site (circle	e): open soils?	hilltops, ridges	cock outc	and the same of th					
		Butterfly	Species				Tally		Total	
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIS
8		Gadfields
		Composites
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TAL NUMBI	ER OF QCB DETE	ECTED: Ø INDIVIDUAL

Recorder:	Dale	Pows	<u> </u>	Person:	Eugene	Pablo	Date:	4/2	3 110
Project: _	Campo	Wind Energy	Project	Map #:_	16	H. Co-1	Survey Sx	n:	
TIME (	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	13:30	72°	2/5	0	clear	patchy	overcast	drizzie	shower
	141.25	75°	0/0	0	टिश	patchy	overcast	drizzle	shower
	16:25	720	4/6	0	clear	patchy	overcast	drizzle	shower
				K	clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
	-		-		clear	patchy	overcast	drizzle	shower
END					clear	patchy	overcast	drizzle	shower
Habitat On	i-site (circle)	open soils,	hilliops, ridges	s, reek outc	rops, soif cru	sts, clay soil	s, old roads,	various ne	ectar sources
	- 540	Butterfly	Species				Tally		Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINT SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		Amsinckia
		Mustard?
		Erodium
		Lesthania
	***	Layia
		Nemo phylia
		Phacelia 2species
-	:	Phacetia Descres
		Arabis
		Suypthantha
		Salvia columbarios
		60p1005
		Eschscholzia
		Plagiabanhors
2 -0		
OPEPOI	Excluded Polypon	. Sage, Oak,
DEFLOT	11	()
OPIPOI	Induded Polygon	Hos native VigetaTing included
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Page <u>2</u> of <u>2</u>

			Quii	no Che		lutterfly Protoci ata Sheet	ol Survey			
Recorder:_	Pale	Powell	-	_ Add'I	Person: _	Eugene Pa #: 15	blo	Date: _	4/81	10
Project:	Manza	nita Wind Ene	ergy Pr	oject	Мар	#: 15	K con	Survey	Sxn:	
+1					7.	_ QCB Protocol				
TIME (24	1-hour)	Temp (F°):		ind /max)	% CC			Sky	7	3-300
START	9:45	630	- 5	7	0	Clear	patchy	overcast	drizzle	shower
	9:55	670	10	13	0	<u> </u>	patchy	overcast	drizzle	shower
	11,30	710	3/	7	0	4	patchy	overcast	drizzle	shower
	12:40	715	6	9	0	€ GEGr	patchy	overcast	drizzle	shower
	13:10	74°	S'	9	0	Œar	patchy	overcast	drizzle	shower
						clear	patchy	overcast	drizzle	shower
END	559					clear	patchy	overcast	drizzle	shower
-labitat On-	site (circle)	open soils,	hilliops	s,⊄id <del>a</del> e	s, rock outo	rops, seiterusts	clay soils	s, old roads,	various ne	ctar sources
	- 482	Butterfly	Spec	ies	-			Tally		Total
Sav	9'5 00	rouge Tip				W	T HE	HTT HTT HT	THE !	31
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		Hairst		-			TI HTI	HI WILL	H	25
	Narble					1	un lui	A SE		9

Butterfly Species	Tally	Total
Squa's Ovonge Tip	भा भा भा भा भा भा ।	31
Chakedou	1/1	31
Perplexing Hair Streak	WI WI WI WI WI	25
Marhle	un lai	9
Marble White?	Wir Ht.	11
Behrs Motal work	· HT HT 14	13
Southern Blue Blue? Lady?, Painted Lady	भा भा भा भा भा ।	26
Blue?	the litt illi	26 14 5 2
Lady?	W	5
Painted Lady	il -	2
Disky-Wing	1/1	2
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		Amsunctia
		Lugino
		Erodium
	·	Eschscholina
		Cuyptontha
		CaapaThus
		Loyiq MoRod?
		DichlesTema
		Phacalia 2 species
		Mimolos
		Salvia columbáriou
	***************************************	Lasthonia
		Nemajohilia
DPC501		Caulanthus simiolars
		Arabis
		Pen of amin
		Moniquita
		Plazio boshrus
		-
	BER OF QCB DET	ECTED: (^) INDIVIDUAL:

Page 2 of 2

			LR Add'I				Date:		<u>ත</u>
Project:	Campo	Wind Energ	y Project	Map#:	4/12 (	(amps &	)Survey Sx	(n:	
GPS Unit				· · · · · · · · · · · · · · · · · · ·	QCB Proto	col Survey#	2	of	<u> </u>
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	0,900	57	3-6	0	clear	patchy	overcast	drizzle	shower
SMARY	0930		3-4		clear	patchy	overcast	drizzle	shower
		*		ļ	clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
				<u> </u>	elear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
END	16 20	70	0-2	0	clear		overcast	drizzle	shower
Habitat On	-site (circle)	open soils,	hilltops, ridges	s, rock outc	rops, soil crus	sts, clay soils	s, old roads,	various ne	ectar sources
		Butterfly	y Species				Tally		Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
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Page <u>2</u> of <u>2</u>

Recorder:	DAVIG	FLIE	TNERLADOI	Person: 💆	J 415	BERGH	AW Date:	4/9/	10
Project:	Campo	Wind Energ	y Project	Map #: <u>_</u>	anyo	R-25	Survey S	xn:	
GPS Unit	8_				QCB Pro	tocol Survey	#	of	5
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky	-	
START	1050	69	0	0	clea	ar) patchy	overcast	drizzle	shower
END		子3 子4	0	<u> </u>	clea	patchy	overcast	drizzle	shower
START	1430	74	23-		clea		overcast	drizzle	shower
ļ				<u></u>	cléa		overcast	drizzle	shower
					clea		overcast	drizzle	shower
END	15 50	, 17	~2 _1	(23	clea			drizzle	shower
END Habitat On	-site (circle):	73	ا م د د hilltops, ridges	rock outer	clea	r ) patchy	overcast	drizzle	-shower
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		Butterfly	/ Species				Tally	***	Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST
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Recorder:_	Mike	COUFFER	Add	I Person:	Ø		Date:	9 APRIL	,2010
Project:	Campo	Wind Energ	y Project	Map #: _	ં હિ		Survey S	xn: _CAM	20 H
GPS Unit :		_5			QCB Protoc	col Survey#	1:	2 of_	5 .
TIME (24	i-hour)	Temp (F°):	Wind (avg/max)	% cc			Sky		
START	1430	74	3->5	CLEAR	clear	) patchy	overcast	drizzle	shower
	1500	73	1->4	CLEAR	clear	patchy	overcast	drizzle	shower
	1600	72	1->6	CLEAR	clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy -	overcast	drizzle	shower
END			_		clear	patchy	overcast	drizzle	shower
-labitat On-	site (circle)	open sols	hilltops, ridge	s rock outcre	ops; soil crus	sts, clay soils	, old roads	various ne	ctar sources
		Butterfly	Species				Tally		Total
BEHRS	METAL	MARK				TAUY IN	FIELD NO	TEBOOK	57
	- ORANG		LINCONN' PANCO LI				11		4
		ARBLE					11	-	6
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POIN' SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LI					
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Recorder	Mike Co	UFFER	Add'	Person:	ي _		Date:	9 APRIL	,2010
					-		Survey S	_	
GPS Unit :		5			QCB Prot	tocol Surv	/ey# <u>\$</u>	$\frac{2}{2}$ of _	5 .
			Wind		I		•		
	24-hour)	Temp (F°):	(avg/max)	% CC			Sky		
START	0930	67	8-72	CLEAR	clea			drizzle	shower
	1000	구식	0-74	CLEAR	clea	X)		drizzle	shower
	1100	72	Ø->5	CLEAR	clea	~		drizzie	shower
	1300	76 77	1-74	CLEAR	clea	4		drizzle	shower
	1400	7.3	3-77	CLEAR	clea		hy overcast hy overcast	drizzle drizzle	shower shower
END	1 100		3 . 1	CCC172	clea			drizzle	shower
Habitat On	-site (circle)	open soils	hilltogs, ridge	s, rock outer	ops, soil cr	usts, clay	soils old roads	various ne	ctar sources
<u></u>									
		Butterfly	/ Species				Tally	****	Total
CALIFOR	ENIA MA	RBLE				TAL	Y IN FLEW NO	TEBOOK	52
$\sim$			ر>				U. 11		40
FUNEO	FAI DU	CHVINING					- 11		38
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5000	ORANGE						1		2
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BROW	ED LADIA				_		- 11		5
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINT SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LI
MCHLOI	POINT	JUYENILE HOLNED LIARD
MCHL02	Point	ADULT HORNED LIZARD
Mccool	POINT	HOSTPLANT LOCATION.
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Page <u>2</u> of <u>2</u>

Recorder:	BRIAN	LoltsTROP	Quino Chec	Field D	utterfly Prot ata Sheet . Innecke		8.	4/13/	10
			y Project						
GPS Unit	200				QCB Protoc				
TIME (	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	1040	62	2-5	0	clear	patchy	overcast	drizzle	shower
	1200	67	2-3		clear	patchy	overcast	drizzle	shower
	1300	64	0-3	0	<u>clear</u>	patchy	overcast	drizzle	shower
	1430	66	0-6	0	Clear	patchy	overcast	drizzle	shower
	1520	62	3-8	30	clear	patchy	overcast	drizzle	shower
	1640	59	3-8	30	clear	gatchy	overcast	drizzle	shower
END				1	clear	patchy	overcast	drizzle	shower
Habitat Or	n-site (circle	): open soils,	hilltops, ridges	s, rock outc	rops, soil cru	sts, clay so	ils, old roads	, various ned	tar sources
		Butterfly	Species				Tally		Total
		77	monwhi	fc	21		11		2
			Coast 1	27			11		2
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
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		WREN
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		HOWR
		RTHA
		REWR
		NOHA
BLGVOI		Gerea Viscida x 10 indiv.
BLCP01		Lathypus Splenders X 2
BLDBOZ	-	Linanthus Gellus X 10
BL PJOI		Caulanthus Simulans & 100
BLDB03		Linanthus bellus x 30
BLDBOH		1. bellus x 100s
BLDB05		L-bellus x 10s
BLD806		L. bellue x 1000
BLWHOI		Northern harner &
BLP302		Carlanth's Simulans X 30
		<u> </u>
OTAL NUME	BER OF QCB DET	TECTED: $ extstyle \mathcal{Q}$ INDIVIDUAL
		2 2 '
		Page $2$ of $2$

Recorder: Dale Powell Add'l Perso	n: O draken	Mach	Date: _	4/13	10
Project: Campo Wind Energy Project Ma	ıp#: <del>9</del>	Compo	Survey Sx	: :n:	
GPS Unit :	QCB Proto	ocol Survey#_	2	of	5 .
	cc		Sky		
START 13.30 620 214 2	Clear	<i></i>	overcast	drizzle	shower
	50 Clear		overcast	drizzie	shower
S: 50 S8° 1/3 9	වර Glear	patchy	overcast	drizzle	shower
	clear		overcast	drizzle	shower
	clear		overcast	drizzle	shower
15.30	clear		overcast	drizzle	shower
Lightet On cita (circle): and colla killing ridge red	clear		overcast		shower
Habitat On-site (circle): open soils, hilltons, ridges, rock	outcleps, solicit	isis, clay solis	, colu roaus,	various nec	iai sources
Butterfly Species			Tally		Total
		ift HT	14 HT	art wi	20
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		Couptrainly
		Part
		Pectino congra Manzanata
		Erodium
		and the same of th
		Memo philia Eschescholzia
		Eschescholzia
		Viola
		lasteria
		Layla
		Lupinos
		Arabis
		Cricquarid
OTAL NUMB	ER OF QCB DET	ECTED:O INDIVIDUALS

Page  $\frac{\lambda}{2}$  of  $\frac{\lambda}{2}$ 

#### Quino Checkerspot Butterfly Habitat Assessment Field Data Sheet

Recorder: Dal	e Famel Add'II	Person: Darlane Mack Date: 4/3/10
Project: Campo	Wind Energy Project	Map #: GPS Unit :
START Time: 10 /34	7 Temperature:	Wind Speed (mph)/Direction: %Cloud Cover: 15%
	f ^a h	Wind Speed (mph)/Direction: 2/4 — %Cloud Cover: 30%
MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS/GENERAL SPECIES LIST
		Acmen Blue
		Blue IIII
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#### Quino Checkerspot Butterfly Habitat Assessment Field Data Sheet

MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS/GENERAL SPECIES LIST
	}	Manzanita
		Carnethus
		Eredeum
		Newsphilia
		(rypthantha
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		Vinle
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Recorder:_	Wike (	COUFFER	Add'l	Person:		<u>}</u>		Date:	13 AP	2010 RIL 2010
Project:	Campo	Wind Energ	y Project	Map #:_	TILE 5	5_	•	Survey S>	on: <u>CAM</u>	PO "C"
GPS Unit:	GAR	MIN Z								5
TIME (2		Temp (F°):	Wind	% CC	T				1	· · · · · · · · · · · · · · · · · · ·
START	1000	58	(avg/max) Ø->3 m/H	CLEAR.	Clea		patchy	Sky overcast	drizzle	shower
317.1.	1100	58	Ø->3	CLEAR	clea		patchy	overcast	drizzle	shower
	1200	56	ダシス	CLEAR	clea		patchy	overcast	drizzie	shower
	1300	65	Ø->	CLEAR	ciea		patchy	overcast	drizzle	shower
	1400	67	トラス	CLEAR	Clear		patchy	overcast	drizzle	shower
	1500	66	Ø->3	CLEAR	Clea		patchy	overcast	drizzle	shower
END	1600	63_	1->5	CLEAR	clea		patchy	overcast	drizzle	shower
Habitat On-	site (circle)		hilltopsTridges							
	-	Butterfly	y Species	<u>.</u>		ļ .		Tally		Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST
MCQBO4	Point	SOMEWHAT DRAB INDIVIOUAL ON THE REST- LOOKING
		HILLTOP IN CAMPO C.
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Recorder:	PAIL !	aloste.	Add'l	Person: 60	orbin	A	Date:	4/14	110
Project:	CAMI	ි #ta Wind En	ergy Project	Map #:	g		Surve	v Sxn· F	-
GPS Unit									5 .
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		-
START	0930	105	3x-7m	5	clea	patchy	overcast	drizzle	shower
1-01-01	130	70	3A-6m	75	clea	r patchy	overcas?	drizzle	shower
Left Ridge	230	67	4A 8M	90	clea	r patchy	overcast)	drizzle	shower
					clea		overcast	drizzle	shower
<u> </u>				- 1	clea	<del> </del>	overcast	drizzle	shower
END	300	lolo	YABM	20	clea		overcast	drizzle	shower
Habitat Or		r open soils	hilltops, ridges	rock outcro	clea		overcast	drizzle various n	shower
Tiabliat Of		, open sone,	Timtopo, Tages	, rook outoro	55, 50n or	aoto, ciay oc	ns, old roads	, vanous n	cctar sources
		Butterfl	y Species	-			Tally		Total
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Page 1 of 17

MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
ELA QCB01	Point	QUB SILITING BUT NO Pics - recommend revisit
		Soon For conframation.
		Lastheria California
		Erodium SP.
		Plagobothys st.
		Cennothus SP.
		Lupinus sti
	POTONIA .	Mimulus Brennes
	Trouble Control	Layin Glandulosa
		Amsinkia menzielil
	14.	Eschol Zta California
	<u> </u>	Camonisonia st.
		Trogopogon polsiblius
		ANSOCOMO ACONIS
		Arabic Sc.
		Baby Blue eyes.
	· · · · · · · · · · · · · · · · · · ·	Baby Blue eyes. Solanum zarryií
		Sanicola argeta
		Chia
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TOTAL NUMBER OF QCB DETECTED: _____ INDIVIDUALS

Page 2 of 2___

Recorder:_	Gretch	nen Cum	mingsAddil	Person:	Gene		Date: _	4/14/	10
Project:	Campo	Wind Energ	y Project	Map #: _	19		Survey Sx	n: <u> </u>	>
GPS Unit :	c	2			QCB Proto	ocol Survey	#	of	5
TIME (2	4 hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
	0945		(avg/max)	20%	clear	r (patchy	overcast	drizzle	shower
1125			3.2/3.8	25%			overcast	drizzle	shower
MBANDA			MERCHAN		clear	r dalam	overcast	drizzle	shower
		, in the second			clear	patchy	overcast	drizzie	shower
			-		clear	patchy	overcast	drizzle	shower
			<u> </u>	ļ	clear		overcast	drizzle	shower
END	1345	70.0°F	2.613.9	40%	clear		overcast	drizzle	shower
Habitat On	-site (circle):	: open soils)	hilltops, ridges	s rock outer	ops, soil cri	usts, clay so	oils, (oid roads)	various ne	ectar sources
		Butterfly	y Species				Tally		Total
Callac	shows do					MIM			10
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Maplopsia	bel) Point/Polymantype	1 Comments   Species List
		Plasiabothys sp.
		Spottled Towner
		Cryptontha sp.
		California Thrasher
		Descurainte sp.
		Anna's Humming bird
GCHLOI	Sensitive species Homed Lizard	Horned Lizerd
		Lupmus sp
		Lasthenia californica
		Arabis
		American Robin
		Red-tailed Howx
· · · · · · · · · · · · · · · · · · ·		Black-chroned Sperrow
		Lopinus bicolor
		Kalifornia Poppy
		Northern Flicker
		Amsinckia menzeisii
		Western Sunb Jay
		Nemophila menzeisii
		Boshtit
		Gilia sp.
		Black-throated Grey warbler
		Oak Titmouse
		White-crowned Spanow
Total	# of QCB	Detected O Individuals

Page 2 of 2

_			Monday Add'l					Date: _		
Project:	Campo	Wind Energ	y Project	Map #: _	[]			Survey _: Sx	(n:	
					QCB Prot	oco	ol Survey#_	<u>a</u>	of	5
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC		'		Sky		
START	1420	77°F	2.6/6.2	70%	clea	г ,	patchy	overcast	drizzle	shower
	1600	74%	0.8/1.9	50%	clea	r	patchy	overcast	drizzle	shower
				aldar	clea	r.	patchy	overcast	drizzle	shower
					clea	r	patchy	overcast	drizzle	shower
					clea	r	patchy	overcast	drizzle	shower
					clea	r	patchy	overcast	drizzle	shower
END	1045	690F	1.3/2.1	70%	clea	r	patchy	overcast	drizzle	shower
Habitat On	-site (circle)	open soils	hilltops, ridges	rock outcr	ops soil cr	ust	s, clay soils,	old roads	various ne	ctar sources
		Butterfly	/ Species	· · · · · · · · · · · · · · · · · · ·				Tally		Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		Amsinckia menziesii
***** <u>.</u>		Spotted Towhee
		Cryptontha sp.
·		Plagiobothnys
		Lupinus bicolor
		Lastheria californica
		Descurante sp.
GCLAOI	Sensitue Spices	heard Horned Lark
		California Thrasher
		Lark Sparrow
		Annàs Hummingbird
		cf. Ericanuria pinifolia
		Arabis
		Phreelia Spi
		Trichostemma sp.
	-	
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	<u> </u>	
OTAL NUMBI	ER OF QCB DETE	CTED: O INDIVIDUALS

Page 3 of 3

Recorder: Dalt Pous! Add'l Person: May #: Survey Sxn:  GPS Unit: 5 + May gie Y Person: May #: Survey Sxn:  TIME (24-hour) Temp (F): (avg/max) % CC Glear patchy overcast drizzle shower dr							しい	15 COMO	l	
Project: Campo Wind Energy Project Map #: Survey Sxn:  GPS Unit: 5+ May gie 7 Persinal QCB Protocol Survey # of £ 5  TIME (24-hour) Temp (F°): (avg/max) % CC Sky  START 100 Giear patchy overcast drizzle shower clear patchy overcast d	Recorder:	Dale	Pous	           	Person: Ma	Wie Mul	15 du	Date:	4/	14/10
GPS Unit: 5 + Movigies Persinal QCB Protocol Survey# of 5.  TIME (24-hour) Temp (F°): (avg/max) % CC Sky  START 100 Gear patchy overcast drizzle shower clear p	Project:	Campo	Wind Energy	y Project	Map #:	5_		_ Survey Sx	(n:	
TIME (24-hour) Temp (F°): (avg/max) % CC  START 1010 630 C Clear patchy overcast drizzle shower    205 640 C Clear patchy overcast drizzle shower   205 640 C Clear patchy overcast drizzle shower   206 CLEAR PATCHY OVERCAST DRIZZLE SHOWER   206 CLEAR PATCHY OVERCAST DRIZZLE SHOWER   207 CLEAR PATCHY OVERCAST DRIZZLE SHOWER   208 CLEAR PATCHY OVERCAST DRIZZ				t Margie	s Personal	QCB Protoco	l Survey #	£	of <u>4</u>	
START 1015 630 000 clear patchy overcast drizzle shower clear patchy overcast drizzle										
Clear patchy overcast drizzle shower   Clear patchy ove			Temp (F°):		% CC				4-11-	ahawaa
Clear patchy overcast drizzle shower  END  Habitat On-site (circle): Open soils hilltops, ridges, rock outcrops, soil crusts, clay soils, old roads various nectar sources  Butterfly Species  Tally  Total  Acmed Clear  Acmed Clear  Acmed Clear  Per playing tair 37 reakt  Southern Mayble  Clear patchy overcast drizzle shower  Tally  Total  Acmed Clear  Acmed Clear  Acmed Clear  Acmed Clear  Tally  Total  Acmed Clear  Acmed Clear  Acmed Clear  Acmed Clear  Tally  Total  Acmed Clear  Acmed Clear  Tally  Total	START		00			-		<del></del>		
Clear patchy overcast drizzle shower   Clear patchy ove		1 20)	64	Oio			-	· · · · · · · · · · · · · · · · · · ·		
Clear patchy overcast drizzle shower				-			-			
Clear patchy overcast drizzle shower  END  Clear patchy overcast drizzle shower  Habitat On-site (circle): Open soils hilltops, ridges, rock outcrops, soil crusts, clay soils, old roads various nectar sources  Butterfly Species  Tally  Total  Acmon Blue  Behis MeTelmock  Perplexing that 3Treaks  Southern Marble  Rice 2	·					***************************************				
END  Clear patchy overcast drizzle shower  Habitat On-site (circle): open soils hilltops, ridges, rock outcrops, soil crusts, clay soils, old roads, various nectar sources  Butterfly Species  Tally  Total  Across MeTalmock  Per plexing HairsTreaks  Southern Marble  Blie?										
Habitat On-site (circle): open soils hilltops, ridges, rock outcrops, soil crusts, clay soils, old roads, various nectar sources  Butterfly Species  Tally  Total  Acmon Blue Behis MeTalmack  Hill Hill  Per plexing Haistreakt  Southern Marble  Blue 2	END						<del></del>			· · · · · · · · · · · · · · · · · · ·
Acmon Blue Behis MeTalmock  Lady?  Perplexing Hairstreakt  Southern Marble  Blue 2		-site (circle)	open soils	hilitops, ridge:	s, rock outcrop					
Acmon Blue Behis MeTalmock  Lady?  Perplexing Hairstreakt  Southern Marble  Blue 2		`	-				-	The state of the s	The Ballon Dellarge, Sans works	
Behrs MeTalmack HTT +HIIII #14  Lady? Perplexing Harstreaks  Southern Marble  Blis?		~ ~		Species				Tally		Total
Perplexing Harstreakt 11 2 Southern Marble 11 2	Ac	men III	ــــــــــــــــــــــــــــــــــــــ				141	441		10
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Southern Marble	Pe	مندحان	Houst	o KT						2_
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINT SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LI
	Nectur Sources;	Ceanothus levcodermis
		C. greggi var. perplexans
		Amsinkia menziesij
		Beholtzin alifornia
		Lipinus concinnus
		Brodium cicutarium
		Cyphintia micranting
		C. JAMOSHA MICHANINA
	4.	
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Page 2 of 2

Quino Checkerspot Butterfly Protocol Survey

	Field Da	ata Sheet	Î ma	s Connelly	,	
Recorder: Dale Pawell Add'l Pe			Muligan	Date: _	4/14,	40
Project: Campo Wind Energy Project	Map #: _	7-7	<u> </u>	Survey Sxr	ı:	
GPS Unit: 5+ Margie's persona	7]	QCB Prot	ocol Survey#		of	<u>   5                                 </u>
TIME (24-hour) Temp (F°): (avg/max)	% CC			Sky		
START 13:00 720 1/3	<u> </u>	clea	patchy	overcast	drizzle	shower
15:50 620 7/10	75 -	clea	r patchy	overcast	drizzle	shower
6:45 700 3/5	20	cuس/) _{clea}	r patchy	overcast	drizzle	shower
		clea	r patchy	overcast	drizzle	shower
		clear	r patchy	overcast	drizzle	shower
		clear	r patchy	overcast	drizzle	shower
END		clear		overcast	drizzle	shower
Habitat On-site (circle): open soils hilltops, ridges	OCK OUTCI	ops/squ cn	usts, clay sons	, old roads, v	/anous nec	ctar sources
Butterfly Species		- : .		Tally		Total
		(:		出一种品		58
Behrs McTalmark		(HtT				2)
Mar Me				H+ 11-1	İ	
Sors Orongs Tip			171	·		3
Usky wing			H+ 11	11		19
Pale 5 Jallow tail			11.			2
Spring White			11			2
Perplexing Hairstreak						
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
·	Nectar Sources!	My Lasthenia gracilis Carlanthus sim
		Phacelia parryi
·		Lupihus bicolor
		L. Concinnus
		L. trungals
		Cryptantnasp.
· .		Ceanothus leucodermis
		layia glandulosa
		Escheltzia californica
MMCSOI	sensitive plant pt	Carlanturs Simulas 5
MMCS02	11	
MMCS03	1	forering along ridge 1000s of them
MMCSOY	11	flowering a long ridge 1000s of them and some friting
MMC505	((	
MMCSO6	( )	
MMCSOT	11	
MM cs08		
MMGVOI	11	Geraea viscida - I veretative plant
		Geraea viscida - I vegetative plant in a drainage of ridge
DEEDOI	Excluded Polyon	Not closed. Closed canopy chaparry
·		
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Page 2 of 2

Quino Checkerspot Butterfly Protocol Survey **Field Data Sheet** Luis Cours 114 Recorder: Dale Powell Add'l Person: Margie Mulligar Date: 4/14/10 12 - C Survey Sxn:____ Project: Campo Wind Energy Project Map #: __ 5 + Margle 's Personal QCB Protocol Survey # 2 of 5. GPS Unit : % CC Sky TIME (24-hour) Temp (F°): (avg/max) 1419 clear patchy overcast drizzle shower 10:05 patchy clear overcast drizzle shower drizzle shower clear patchy overcast clear patchy overcast drizzle shower drizzle shower clear patchy overcast drizzle shower overcast clear patchy drizzle clear patchy overcast shower. Habitat On-site (circle): open soils, hilltops, ridges, rock outcrops, soil crusts, clay soils, old roads, various nectar sources Tally **Butterfly Species** Total

MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)					
	Nector Source;	Lupinus concinnus					
		Cryptuntug micrantug					
		Lastnenia gracilis					
		Cercocarpus bebloides					
		Malacotun & Californica					
		Behoffzin californicy					
		Amsinkia menziesij					
	· · ·	Prodium acutanum					
		El Ollio 10. Ol Ol Ju. 10111					
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		·					
OTAL NUMBI	ER OF QCB DETE	CTED: INDIVIDUALS					

Page 2 of 2

Recorder: Dele Powell Add'l Person: Lui	is Councily Date: 4/15/10	_
Project: Campo Wind Energy Project Map #: 1	6 - Land H Survey Sxn: 2	
GPS Unit : QC	B Protocol Survey # 2 of 5	÷
T!ME (24-hour) Temp (F°): (avg/max) % CC	Sky  Gear patchy overcast drizzle shower	
1015 662 11/14 0	(clear) patchy overcast drizzle shower	
410 720 417 0	clear patchy overcast drizzle shower patchy overcast drizzle shower	
	clear patchy overcast drizzle shower	- \$
END	clear patchy overcast drizzle shower	
Habitat On-site (circle): open-soils, billtops ridges rock outcrops,	soil crusts clay soils, old reads, various nectar source	S
Butterfly Species	Tally Total	
Behr's Meralmark It HIT HIT HIT	THE HIT HIT HIT HIT 65	
White?	THE THE THE THE THE THE THE	
Marble	447 5	
Saras Crangetip	MI (	
Deskywings		
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Between 9-10 me butterflies wither the weather conditions were	eve abjetued even though	
the weather conditions were	adequato.	$\dashv$

MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		Lasthenia
		Erodium
		Manzanita
		Eschscholzia
		Descuranta
		Cryptantha
		(a pas thus
		Lou punus
· · ·		tey stemon
		Pho celia
		Arelia
		Solved chembour
		Deallostenna
		V. do
		Amsinda
		Manage
		- Stilliam V
12 11100	V = 7	Nousplilia
DY HLOI	Yeins	Son Diego Horned Lizard
DP 001	•	lanthus MMMMM Sumulans
MEPO1	Excluded Polygon	Closed Canopy (Noparra)
DPIPO2	it in	The second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second secon
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TOTAL NUM	BER OF QCB DE	FECTED: INDIVIDUALS

Page _____ of ____

Recorder:	DAVEDE	C. FANKLOS	Add'l	Person:	R. Como	ily	Date:	15 Apr	211 2010
Project:	Campo		/ Project						
GPS Unit :	3				QCB Proto	ocol Survey#	2?	of	5
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	ರೀಣ	64	6	Ø	clear	patchy	overcast	drizzle	shower
	(202)	67	3	Ø	clear		overcast	drizzle	shower
	1100	64	9	Ø	clear		overcast	drizzle	shower
	<u> </u>				clear		overcast	drizzle	shower
-					clear		overcast	drizzle	shower
					clear	·	overcast	drizzle	shower
END					clear		overcast	drizzle	shower
	-site (circle):	open soils, I	hilltops ridges	crock outc				, various हर	ctar sources
	· .								
· · · · · · · · · · · · · · · · · · ·		Butterfly	Species				Tally		Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST					
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		Goldfields Sugar bush Cryptathe Cenuthers					
		deadh sast					
,		coupt the					
		Cenusthers					
		-					

Recorder	Mike	Couff	ER Add'I	Person:		7	Date:	15 APR	JL, 2010
Project:	Campo	Wind Energ	y Project	Map #: _	TILE	14	_ Survey Sx	on: CAM	100-K
GPS Unit :	_	zmin		f y sign		ocol Survey#	A	of	5 .
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky	- · · · · · · · · · · · · · · · · · · ·	
START	0900	67	1->5 mpH	CLEAR	Cléa	patchy	overcast	drizzle	shower
	1000	68	1->8mp4	CLEAR	clea	patchy	overcast	drizzle	shower
	1100	71	HOMECOR	CLEAR	clea	patchy	overcast	drizzle	shower
	1200	7/	Ø->8m9H	CLEAR	Ciéa	patchy	overcast	drizzle	shower
	1300	70	2-KO MIH	CLEAR	Clea	patchy	overcast	drizzle	shower
	1400	<u> </u>	Ø->3 no?H	50%Cover			overcast	drizzle	shower
-END	1500	70	1-34 MBH	90% Covea			Covercast )	drizzle	shower
Habitat Off		Open solls)	milltopsoridges	Selock ontor	opsy soli cri	usts, clay soil	s, old roads)	various nec	tar sources)
<u> </u>	10001	Butterfly	y Species	T-N-AMINE	1, 100.70	COVE	Tally		Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST						
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Recorder:	MIKE	COUFF	EP Add'I	Person:	e		Date:	16 AP	21L,2010
			ıy Project					-	
		F him				tocol Survey#			
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky	1 1	<u> </u>
START	0900	<b>७</b> ₹	0-73	CLEAR	clea	patchy	overcast	drizzle	shower
	1000	60	2.75	CLEAR	clea	<del></del>	overcast	drizzle	shower
	1100	70	Ø-73	CLEAR	clea	<	overcast	drizzle	shower
	1200	73	Ø>3meH	CLEAR	clea	-	overcast	drizzle	shower
	1300	74	1->4 WOH	CLEAR	clea	patchy	overcast	drizzle	shower
	1400	76	Ø-73	CLEAR	cléa	patchy	overcast	drizzle	shower
END	1500	73	2-75	CLEAL	clea	patchy	overcast	drizzle	shower
Habitat On	-site (circle):	open soils	hilltops, ridges	rock outcr	ops, soil cr	usts, clay soil	s, old roads,	various ne	ctar sources
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
MCHLOS	POINT	AOULT HORNED LIZARD
MCHLO6	POINT	JUYENILE HORNED LIZARDS
MCSH01	POINT	MATING SPADEFOOT TOADS
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TOTAL NUMI	BER OF QCB DET	rected: individuals
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		Page Z of Z

Recorder:	Dale	Pewe	Add'l	Person:	Wene !	Pablo	Date: _	4/16	10
Project:	-Manzan	<del>ita</del> Wind En	ergy Project	Map #	<b>#</b> :	16	Survey	Sxn: Co	mpo G
		1					_2		
TIME (2	1	Temp (F°):	Wind (avg/max)	% cc			Sky		,
START	12 0	4)	4/7		Clear	> patchy	overcast	drizzle	shower
	1700	70	3/6		Clear	patchy	overcast	drizzle	shower
•				<u>                                     </u>	clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
END					clear	patchy	overcast	drizzle	shower
	-site (circle)	open seils	hilltops, vidge	s Peck outer		sts clay soil	scold roads	Warious nor	rtar sources
	(0.10/0.0)	· oponos	impopo, dagas	5, 100 <u>0,000</u> .	<b></b> ,,	oto, olay ooli	0,01010000,	CVMITIOUS ITEC	orar sources
		Butterfly	Species				Tally		Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
DPHL 01	POINT	Sau Digo Horned Lizard
		Manzanita
		lasthegra
	·	Eredium
		Layia
		Lupinus
		Cryptantha
		Caenothus
		Amszuckia
		Mruniclus
		Eschscholzia
		Phacolia
		Arabis
	·	Descuvina
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TOTAL NUMI	BER OF QCB DET	TECTED: NDIVIDUALS

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Recorder:	Dale	Powe	Add'l	Person:	Bannie	Ray mond Mendric	Councily 15_ Date:	4/16	110
Project:	Manzan	ita Wind End	ergy Project	_ Map	#: <u> </u>	JP G	<u>൝</u> &Surve	y Sxn: <u>C</u> a	mp R
GPS Unit :					QCB Prot	ocol Survey	# <u> </u>	of	5
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	9:45	600	2/4	0	Clea	patchy	overcast	drizzle	shower
	6:55		578	$\bigcirc$	clea	r patchy	overcast	drizzle	shower
*	17:00	780	10/13	<u>Q</u>	efea	patchy	overcast	drizzle	shower
	1400	720	578	0	<u>Clèa</u>	patchy	overcast	drizzie	shower
	122	<u> </u>	3/\		clea		overcast	drizzle drizzle	shower
END					clear		overcast overcast	drizzle	shower shower
	-site (circle):	open spils	hilltops, ridges	roek outci					
		Butterfly	/ Species				Taily		Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		Mazanita
		Lasthenia
		lagia
		Eradion
		Lugary ?
		Cryptantha
		Carnotho"
· 		Amsinchia
·		Minister
		Eschreholin
		Phacelia
		Avahis
		Des curana
		Nemophilia
		Plazabarbyris
	Exclusia	
DPFP01	Polyzon	Closed Canopy Chaparral
OPEPO2	, ,	ti t
Drepo3	11	/I
OPEPOY	11	И
OPIPOI	Included Polygon	Open Chaparra
DPIPOZ	11 (3)	16
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1) b c 1,02			11	
OPIPOL	Included	Palusan	Open Chaparra	.
OPIPOL	NI.	19.	16	
TOTAL NUM	BER OF Q	CB DE	ΓECTED:	INDIVIDUALS
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			Page 2 of )	

Recorder Bonnie Hendrickadd'l Person: R	aymond escopate: 4/161	10
Project: Campo Wind Energy Project Map #2		DR_
GPS Unit GOLMIN 3	QCB Protocol Survey # of	<u>5</u> .
TIME (24-hour) Temp (F°): (avg/max) % CC	Sky	
START 96 JULY START	Clear patchy overcast drizzle	shower
10:30 37.5 1.7/4.2	clear patchy overcast drizzle	shower
11:50 7200000000000000000000000000000000000	clear patchy overcast drizzle	shower
19:25 - 27 60 7:3/10 3	clear patchy overcast drizzle	shower
2:15 7270 14/42 (2)	clear patchy overcast drizzle  clear patchy overcast drizzle	shower
END 5:00 67.2 A.3 5.8	clear patchy overcast drizzle	shower
Habitat On-site (circle) open soils fulltops ridgest rock outcre		
END 5: 45 701-30 4-5/6.7 0	(Jean)	
Butterfly Species	Tally	Total
Dustylning /small black in white	and 1	1
	Jaco A	-
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Bonnia	Handricke	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/
MAP/GPS LABEL	POINT/POLYGON TYPE	SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
BHEPOL	Excluded Polygon	Closed Conopy Chaparral
BHIPDI	Included Pelyon	Open Chaparral
BHQBOI	Quino!	Soon nectaring on Layragandulos
	101/0	1 photo from far andy
	Bresh 0557013	from on other side of t
	3610034	Shruly Mixed Chapange
	3010034	Log of Meria, open sails
		written chapamal
BHAROL	la Maril	+ Ad Ca, + Cerko, Erfa
DITPAUL	host plant poarby	1 plant in filmous
	* Notarian g	Antonklorum Ap.
BHARDA	-4 host ofant	Antirhinum 4 plant
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BH NLOI	Mammel	Desert Woodrat Nest
		built in-cactus surrounding next
		Nectaring plant?
		La yia glandulosa La strenia sp.
		Lasthenia sp.
		Escholtzia sp.
		Cryptantua 3p.
		Ceanoromo 3pp.
		Amsinckia sp.
TOTAL NUME	BER OF QCB DET	ECTED: (1 ) INDIVIDUALS
		Page 2 of 2

Over

557209 3610369

3610769

The photo was taken at a distance, but the Quino is visible. You can find it near the center of the photo nectaring on white tidy tips (Layin glandulosa). The butterfly is completely covering the flower in the photo, but you can see another tidy typs just above and to the left. The Juino was fresh with bright color and no nicks or tears in the wings. The habitat was mixed chaparral dominated by chamese (A denosterma farciculata) mountain makagony (Cereocarpus betuloides), and backwheat (Eriogonum fosiculatum) with openings of bare soil and nectaring plants. One climbing snopdragen (Antirchinum kelloggii) plant in bloom was found nearby, see second photo attached.

Recorder:	Margie	e Mullia	39h Addil	Person:				Date:	4.17.1	0
Project:	Campo	Wind Energy	y Project	Map #: _		<u>- C</u>	\$12-C	Survey S	xn:	
GPS Unit	:2_	· · · · · · · · · · · · · · · · · · ·			QCE			# <u>Z</u>		5
TIME (	24-hour)	Temp (F°):	Wind (avg/max)	% CC	T	Sav	a perple	King nght	avian	
START	0900	F-2	0-3	90%7	414	clea	r patchy	overcast	drizzle	shower
	1000	700	0-4	100%		clea	r patchy	overcast	drizzle	shower
	1245	790	1-5	160%		clea	r patchy	overcast	drizzle	shower
				/		clea	r patchy	overcast	drizzle	shower
					ļ	clea	r patchy	overcast	drizzle	shower
			.:		ļ	clea	r patchy	overcast	drizzle	shower
END					L.	clea		overeast	drizzle	shower
Habitat On	ı-site (circle)	open soils,	hilitops, ridges	s, rock outci	rops, s	soil cr	usts, clay so	ils, old roads	various ne	ectar sources
		Butterfly	Species					Tally		Total
Pro	lexing	Hairst	76K				11411			7
	wing						1141			7
	y Marb	14					44 44	# ##	. 11	22
	Swallow						1/1/			4
Behr	-15 Meta	1/mark	· 				1441			6
Sava	3 Oran	ox fip					Jul 1			3
Acn	non Blot	<u> </u>					11			2
Che	ckered	White					\		·	. 1
Sul	phur sp	•					1			,
	145p.	***************************************					1			١
190	7						<del>-\</del>			
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
MMGVOI	Sensitive plant of	Gerara Viscida - 3 vegetalive plants
	·	
1.		_
Weds	Nectar Source	Encamena linearifolia
weep	146-114 704166	Erodism cicutarium
		Lustnenia gracilis
		Eryptantia micrantua
		Marah macroarpos macrocarpos
		Maran macrochipos macrocarios
		Trichostemni parishi,
		Pectolary linearis
		Amsinkia menziesii
		Cercocarpus betiloides
		Pringtemon apectabile
		Luphaus Concinnus
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		in the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second se

TOTAL NUMBER OF QCB DETECTED: ______ INDIVIDUALS

				rieid Data	Sneet				
Recorder:	Mike G	DUFFER	Add'l I	Person:			Date: _	17 Apri	L, 2010
Project:	CAMP Manzar	o <del>rita</del> Wind Er	nergy Project	_ Map #: ˌ	Vil	E 1	Survey	Sxn: <u>CA</u>	190-A
GPS Unit :	GARN	NIN 3			CB Proto	col Survey	#_ 2	of	·5 :: . · .
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC	,		Sky		
START	0900	67	8->4 MPH	100	clear	patchy	overcast	drizzle	shower
	1000	67	Ø->2	100	clear	patchy	overcast	drizzle	shower
	1100	OF	Ø-73	160	clear	patchy	øvercast)	drizzle	shower
	1200	73	8-74	100	clear	patchy	overcast	drizzle	shower
	1300	75	8-75	160	clear	patchy	overcasi	drizzle	shower
	1320	75	Ø->5	160	clear	patchy	overcasi	drizzle	shower
END	•				clear		overcast	drizzle	shower
Habitat On	-site (circle)	open sois	, hilltops, ridges	cock outcrop	🕏, soil cru	ists, clay sc	ils, old roads	various nec	tar sources
	<u></u>	Butterf	y Species				Tally		Total
BEHRS	METAL	MARK		4		TALLY	in flew N	OTEBOOK	85
	M AIM					l n			15
PERPLEX	4NG HA	HRSTREAK				N ₁			8
Acmon	BLUE					· · · · · · · · · · · · · · · · · · ·			8
FUNER	EAL DUSH	ry WiNG				· ·			14
Aerow	HEAO BLL	<u>E</u>				11			~~
SPRING	- WHITE					11			3
PALET	16 ER SU	TWOWAL	AIL			",			1
BROWN	ELFIN					1(			3
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
MC MORTARHOLE 1	POINT	SEVERAL MORTAR HOLES IN A ROCK
		(NAD 27 CON US) 115 0560298, 3620234
MCHLO 7	Point	ADULT HOLNED LIFARD
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TOTAL NUM	BER OF QCB DE	TECTED: INDIVIDUALS

			\Add'l				Date:	4/17	10
Project:	Cau Manzan	၉ဝ Ita Wind End	ergy Project	Map #	#:2		Surve	y Sxn: <u>Ca</u>	mpo D
GPS Unit		1			QCB Proto	col Survey	#	of	5 .
	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Skyllo	*	
START	0900	66	9/11 6/8	90	CIVIO Clear	patchy	overcast	Soldrizzle	shower
	1010	72	6' 18	Cleaving	⊘37°0 clear		overcast	drizzle	shower
	1110	720	7/9_	50%	clear	patchy	Colleges 1	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
END	-				clear		overcast	drizzle	shower
Habitat On	ı-site (circle)	open soils.	hilltops, ridge	s⊋ rock outcr	ops, soil cru	usts, clay so	oils, old roads	, various ne	ctar sources
		Butterfly	/ Species				Tally		Total
Disa	ku asa.					\)			12
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Page ___ of ___

MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)					
		Frodium					
		Cuenothus					
		Cry ptant ha					
-		Amstrackia					
		Desculagnia					
		Namoskijki					
		Place Pia					
		Manzanta					
		Plazio borhavis					
		1.					
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DPCS001	POINT	Costanthus simplones all along you					
OPCS 602	j	1)					
DPHL 001	1(	San Diega Hornad Lizard					
	AIP						

TOTAL NUMBER OF QCB DETECTED: O INDIVIDUALS

Recorder:	Dale	- four	Add'I	Person:		<del>.</del>	Date:	4/1	7/10
Project:	Comp Manzar	s ilta Wind End	ergy Project			7		· i	anypall
GPS Unit	<u> </u>				QCB Prot	ocol Survey	#		•
TIME (	24 hours	Ta (F9).	Wind						
START	4-hour)	Temp (F°):	(avg/max) 구/억	% CC			Sky Sky har	<u> </u>	
Oraci	(3'.60)	20	6/97	50%	clea		overcast overcast	drizzle	shower
	, , , 0	70		30.0	clea		***		shower
					clea		overcast	drizzle	shower
					clea	<u> </u>	overcast	drizzle	shower
		· · · · · · ·	***		clea		overcast	drizzle	shower
END					clea		overcast	drizzle	shower
	-site (circle)	open seits	hilltops, ridges	s rock outer	clea	patchy	overcast	drizzle	shower
		· • • • • • • • • • • • • • • • • • • •	rimopo, prago.	s, rook outer	ops, son cr	usis, clay sc	ils, u <u>ta reaus</u>	r, vario <u>us n</u>	ectar sources
		Butterfly	Species		<i>?</i>		Taily		Total
Part	ad la	d.				( †	Tuny		2
.J r	Y WILL	(	· · · · · · · · · · · · · · · · · · ·			1841		<u> </u>	14
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1010	10000	- Jail							
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		Eredium
		Carnothus
		Curptantha
		Descovainia
		Nemophilia
		Pracelia
		Monzanta
		Honginskia
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TOTAL NUM	BER OF QCB DE	TECTED: INDIVIDUALS

		/					Date: Survey Sxn		
							#2		
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		77 (5 - 55
START	1300	79°	2-8	100	clea	er patchy	overcast?	drizzle	shower
	1600	80°	2-4	100	clea	r patchy	(overcast )	drizzle	shower
					clea		overcast	drizzle	shower
				-	clea		overcast	drizzle	shower
					clea		overcast	drizzle	shower
7115			-		clea		overcast	drizzle	shower
END Habitat On	-site (circle)	onen soils?	hilltons ridge	rock outc		usts clay so	overcast oils, old roads, v		shower tar sources
Travitat C.	-Sito (0.1515)	. Show sound	Line ope, lage	5,000,000		3,000,000	Mag una transfer	direct its	
		Butterfly	Species	2 Ch			Tally		Total
Pear	14 Mar	ble				MITH	(1		12
		Juark					f#+ f#+ l#+	*17111111	38
5/10-	ereal 1	Duskywi	4 5			11	I II de la la la la la la la la la la la la la	N.F.	2
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
险	Nectar Sources!	
		Amsinkia menziesi i
		Lightnus bellus
		Luoinus concinnus
		L. bi 1010-
		(quanthus simulas
		Cryptautna micrantuc
		Plaglaboturyus Sp.
		La Amenia gracilis
		Senecio californica
		Anisbooma acarlis
		Lots Striggsus
		Phacelia distans
		Salvia columbariae
	· · · · · · · · · · · · · · · · · · ·	Nemoghila menzies)
		Layia glandulosa & platgolossa
		Ceanotus levodirmis & greggi perplexans
		En camera linearifolia
WW11301-C	4 sensitive plant of	
14 1 7 7 7 7		throughout polygon
W C 1305	Sensitive plant pt	
	Sensitive lizard pt	Hanlizard -1
MMCSOI		
MMADOI	Sensi Kveplant pt	Cowlanthos simulans - 1 plant
NMDSOI	11	Astragalus douglassisperstrictus 235 plants vegetal
*(10 (10 ) 0 )		Delphinirm panishil 55p. subglabasing So darble thacks
		4 san budding plants
TAL NUMB	ER OF QCB DET	ECTED: O INDIVIDUALS

Page 2 of 2

# **Quino Checkerspot Butterfly Protocol Survey**

			Quino ottoo.	Field D	ata Sheet		,		
Recorder:	KK	1 Oshan	Add'l F	Person:	Georgan	-	Date:	4/8/	2010
Project:	Campo	Wind Energy	y Project	_ Map #:	B(4)	/B(8)	Survey Sx	(n:	
GPS Unit	5						# 13-4-		
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	· .	501	2,5/5	<u>ح</u>	clea	r → patchy	overcast	drizzle	shower
	1120	69	1.7/2.8	0	clea	patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
	Zero	72	colon	0	clea	r patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
	A company	1			clea	r patchy	overcast	drizzle	shower
END			calm	<u></u>	clea		overcast	drizzle	shower
Habitat Or	n-site (circle	): open soils,	hilltops, ridges,	rock outc	rops, soil cr	usts, clay so	ils, old roads,	, various ne	ctar sources
		Butterfly	/ Species				Tally		Total
	Tuchlas	60.00	٢			XXXXXX	MENT IN		73
Barre		and in a	1						1
A.	· · · · · · · · · · · · · · · · · · ·	MOTELL S	r wass		4				31
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IAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)						
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****		Abundan Coodylanthus m						
		oak woodands & Chapman ( marked on Map.						
		oak woulands & Chapman						
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7.000								
		2 & Quinc hill toppion						
		2 d'ainc hill toppping off-site an walk						
		back as judicated						
Water								
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	-							
<u>.</u>								
	BER OF QCB DET	ECTED: Ø INDIVIDUAI						

2 maps on one data sheet Quino Che

#### Quino Checkerspot Butterfly Protocol Survey Field Data Sheet

-	Recorder: KHOsbara Add'l Person: Caorgana Date: 4/15/2010								
Project: Manzanita Wind Energy Project Map #: Survey Sxn: Sxn: Survey Sxn: Sxn: Sxn: Sxn: Sxn: Sxn: Sxn: Sxn:									
GPS Unit	9			· 	QCB Protocol	Survey	#	of	5 .
TIME (2	24-hour)	Temp (F°):		% cc			Sky		
START			/		clear	patchy	overcast	drizzle	shower
904	-	43	36-4		clear	patchy	overcast	drizzle	shower
1030	1130	66	3.9/2-6		clear	patchy	overcast	drizzle	shower
1030			/ /		clear	patchy	overcast	drizzle	shower
1200	400000	72	2.4/0-6	6010%	Cclear	patchy	overcast	drizzle	shower
L4-60		73	calm	492604	Clear	patchy	overcast	drizzle	shower
END					clear	patchy	overcast	drizzle	shower
Habitat Or	-site (circle)	onen soils	hilltons ridges	rock outer	ons soil crusts.	clay so	ils, old roads.	various ne	ectar sources

Tally **Total Butterfly Species** & properties 1/11
Enchlor heyantes 1111 marmo IUXX (Blackewallow E aditha & 3:48 pm 32° 41494 116° 19.728 hill top it project

8 x2 357 pm 32 41.487 116 19.752 an welk back

Photographs of R. P. and habitak V. atalanta V- cardaii /111 V- annoballa / Philosox Cafellas 1

Recorder:_	Antone He Gutierre	Add'l Persor	1: Phil	lio Paipa	,	_Date: _	1181	0	
Project:	CAMPO  Manzanita Wind Energy Proje	ect	Мар #:	8,3,4		Survey S	Sxn: 👍	MDO	B
GPS Unit :	)		QC	CB Protocol Surve	эу #	3	of	5	<u> </u>

TIME (	24-hour)	Temp (F°):	Wind (avg/max)	% cc			Sky		
START	0900	76	0	දිර	clear	patchy	overcast	drizzle	shower
	1000	78	0	40	clear	patchy	overcast	drizzle	shower
	1100	82	0	40	clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
			. g		clear	patchy	overcast	drizzle	shower
END	1600	964	Dup N	30	clear	patchy	overcast	drizzle	shower

Habitat On-site (circle): open soils, hilltops, ridges, rock outcrops, soil crusts, clay-soils, old roads, various nectar sources

Butterfly Species	Tally	Total
Conmon butterfly Behr's Matalnerk	111	8
Bolar's Matalwork	IH HH H WING WI	W 1111 48
Armon Blue	HT (II)	9
Dosky worman	LHT LHT 1	1
Perplexing Mairstreak	11	7
Gards Onlighty	11+1	V
Ca tortos skoll	The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s	
Pale Swallowteil		1
Typer Suallanter	(	1
Softerblue	11	2
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
AGCHI	Chinese Husse	x 8 plants
ż		Eradian cientarion
	·	Everypta chrysanthomifolia
		Careopsis california
		Malacothrix californica
		Malgrothian develandi
		Planiobothy scallinus
		Pracelia
		Nemophila nen ziesi
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TOTAL NUMBER OF QCB DETECTED: ______ INDIVIDUALS

Recorder:	Dale	Paine	Mdd'l	Person: _	Louis	Connol	Date:	4/18	110
Project:	Manzan	e <del>rita</del> Wind Ene	ergy Project	Мар	#:	26	Surve	y Sxn: C	1 100 C
		$\overline{}$					#_3		
	24-hour)	Temp (F°):	Wind (avg/max)	% CC	<u> </u>		Sky		
START	10:00	770	0/0	0.	Curro 1 clea		overcast overcast	drizzle drizzle	shower
	11:30	30,	24.4	0_	clea		overcast overcast	drizzle drizzle	shower shower
					clea		overcast overcast	drizzle drizzle	shower shower
END Habitat On	-site (circle)	open soils)	hilltops, ridges	€OCK outo	clea	r patchy	overcast	drizzle	shower ctar sources
			Species	, Con out	100000000000000000000000000000000000000	l coto, ciay st		, various ric	
Plan	alson	Hanst	dur			11	Tally	<u> </u>	Total 2
Bul	wy ma		上 拼	ध्यं भर	HT IIT	itty	HI WHI	HO HIT	70
M	arbla.					the the	211		12
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		1 attación
		Cartiliza of (India Painthrest)
·		Enolite
		Comptantla
		Carnethus
		Man sight ice
		Arabin
		D'ahlosTemus
		athyrus
		Woll Flower (Erysman)
		Densteining
e e		
		,
DP BJO1	Point	Black tailed Jack Rabbet
		-
-		
TOTAL NUM	BER OF QCB DE	TECTED: INDIVIDUALS

Page 2 of 2

Recorder:_	Dal	e Pow	ell_Add'I	Person:	_000_	Councilly	Date:	4/18	10
Project:	Compo Manzan	<del>ita </del> Wind End	ergy Project	Map #	<b>#</b> :	3	Survey	Sxn: <u>Ca.</u>	m. po 0
GPS Unit :		3	<del></del>			ocol Survey #	_		
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	11:45	300	3/6	0 2	clea		overcast	drizzle	shower
	1330	78 740	417	0	dea		overcast overcast	drizzle drizzle	shower shower
	1430	T	77	0	clea		overcast	drizzle	shower
					clea		overcast	drizzle	shower
					clear		overcast	drizzle	shower
END					clea		overcast	drizzle	shower
Habitat On	-site (circle)	open solls,	hilltops, ridges	s, rock outcri	ops, soil cr	usts, clay soils	s, old roads,	various nec	tar sources
•			/ Species				Tally	•	Total
Rohr	, Metal	mach			ίμ	HI JULY	THI HI	HI HAT (ILL)	43
Rahi	15	· =				1		1	
Sare	is Orac	nget p				W 111			8.
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		DeSevinia
		Longos
:		Castellina sp (Fudion Paintbrosh)
		Produn
		Crytantha
		Amankia
		Avalis
		Dichlos James
		Lathyrus
		Printemen
· .		Wall Flower (Exprimon ?)
·		want isali. (C. Dimont -)
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DPHLOI	POINT	Son Disgo Horned Lizard
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TOTAL NUME	BER OF QCB DET	TECTED: INDIVIDUALS

Recorder:	Recorder: MIKE COUFFER Add'l Person: Date: 18 APRIL, 2010								
Project: Campo Wind Energy Project Map #						)	Survey Sx	n: <u>CΆγ</u>	npo"P"
GPS Unit: GARMINS					QCB Protocol				
Wind									
TIME (2	4-hour)	Temp (F°):	(avg/max)	% CC			Sky		
START	0844	`⊐0	Ø	CLEAR	clear	patchy	overcast	drizzle	shower
	0900	71	0	CLEAR	clear	patchy	overcast	drizzle	shower
	1000	75	8	CLEAR	(clear)	patchy	overcast	drizzle	shower
	1100	77	Ø->ZMPH	CLEAR	clear	patchy	overcast	drizzle	shower
	1200	78	Ø->3 MPH	CLEAR	clear	patchy	overcast	drizzle	shower
	1300	ಕೆಎ	8->3 MPH	CLEAR	cleary	patchy	overcast	drizzle	shower
END	1400	80	D->4 MDH	LLEAR	clear	patchy	overcast	drizzle	shower
Habitat On	-site (circle)	: open soils	hilltops ridges	, rock outer	ops; soil crusts,	, clay soils	old roads,	various ne	ctar sources

Butterfly Species	Tally	Total
1500HRS, 76°F, 176MPH, CLEAR		
1600 HRS, 75°F, 3->7 mp4, 40% Cover,		
SOUTHERN BLUE	IN FIELD NOTEBOOK	5
ACMON BLUE	13	q
PAINTED LADY	11	(3
BEHR'S METALMARK	11	450
CALIFORNIA MARBUE	11	45
ACMON BLUE WITHOUT ANY ORANGE ON WINGS	11	1
SARA ORANGETIP	t.	5
PERPLEXING HATRSTREAK	- 11	17
FUNEREAL DUCKYWING	11	48
CHALCEDON CHECKERSPOT	11	2
PALE TIGER SUPLICUTAIL	T\	1
Brown ELFIN	11	3
SPRING AZURE		6
GABB'S CHECKERSPOT	41	1
	·	

MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
MCMOOTPOHOLES ?	POINT	3 MORTAR HOLES IN A LONG ROCK
Mc WWO I	POINT	·
MCHL08	PONT	TWO JUVENILE HORNED LIZARDS WITHIN 2 FT OF EACH OTHER.
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TOTAL NUMBER OF QCB DETECTED: ______ INDIVIDUALS

Page Z of Z

				Field Dat						
Recorder:_	Dale	Powel	l'bbAl							
Project:	_Manzan	nita Wind En	ergy Project	Map #:	: <i>.</i>	25	Survey	y Sxn: <u>Ca</u>	mpo K	
GPS Unit :		13			QCB Proto	col Survey #	3	of	<b>y</b> 5 .	
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC		5 300 15 100	Sky			
START	1550	720	3/6	0	Clear		overcast	drizzle	shower	
	16:35	720	6/9	0	Gléar		overcast	drizzle	shower	
	-4				clear		overcast	drizzle	shower	
					clear		overcast	drizzle	shower	
					clear		overcast	drizzle	shower	
				-	clear	1000000	overcast	drizzle	shower	_
END	11 11 11				clear	patchy	overcast	drizzle	shower	_
Habitat On	-site (circle):	: open-soils,	hilltops, ridges	s, rock outcro	ps, soil cru	ists, clay so	s, old toads	various ne	ectar sources	è
		Butterfl	y Species		-		Tally		Total	_
<	G1.				*****	MI	runy		3	-
		ve				11			2	
Sava						11			_	-
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
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		Lo 402
		Crawtantha
		Manzauta
		Plagia bothyrs
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TOTAL NUM	BER OF QCB DE	TECTED: INDIVIDUALS

Page 2 of 2

Recorder:_	DAVIDIK	FAUIKNER	Add'l	Person:(	Eugene Parl	oloa	Date:	19 APR	16 2010
Project:	Campo	Wind Energy	Project	Map #:	Survey Sxn: CAMPE-				<u>ρε- €.</u>
GPS Unit :	#7				_ QCB Proto	col Survey#	3	of	5 .
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	1500	7-10	4	ýδ	clear	patchy	overcast	drizzle	shower
				,	clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
END	1630	690	7-8	Ø	clear		overcast	drizzle	shower
Habitat On	-site (circle)	epen soils,	hilltops, ridge	s, (ock outc	crops, soil cru	sts, clay soil	s old roads	various (ne	ectar sources
		Butterfly	Species				Tally		Total
ACMON	Lblue								7-
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Fuchel	J 3.44	<u> </u>				•••			2_
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)						
12	(only Part)	goldfields cryptantha composites.						
		Competities.						
		* ***						
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TOTAL NUMI	BER OF QCB DE	TECTED: Ø INDIVIDUALS						

			Quino Chec		utterfly Pro ata Sheet	toc	ol Survey				
Recorder:	ERIKL	aloste	Add'l I	Person:		Date: 4/19/10					
Project:	Campo	Wind Energ	y Project	Map #: _	10	10 su			Survey Sxn:		
GPS Unit					QCB Proto	QCB Protocol Survey # of					
TIME_(2	TIME (24-hour) Temp (F°): (avg/max) % CC		-	<u>,</u>		Sky					
START	1040	64	. ZAU/4 Max	30	clea	r	patchy	overcast	drizzle	shower	
	1215	62	5A/10M	5	Clea		patchy	overcast	drizzle	shower	
	皇215	76	5A/10m		clear	<u> </u>	patchy	overcast	drizzle	shower	
			4		clea	<u>r</u>	patchy	overcast	drizzle	shower	
-					clear	r	patchy	overcast	drizzle	shower	
					clear	Г	patchy	overcast	drizzle	shower	
END				-0	éleai		patchy	• • • • • • • • • • • • • • • • • • • •	drizzle	shower	
Habitat On	n-site (circle)	: open soils,	hilltops, ridges	, rock outc	rops, soil cri	ústs	, clay soils	, old roads,	various ne	ctar sources	
		Duttorfl	y Species					Tally		Total	
6-4	2260	Blue					/	I ally		7	
	Orange.					- 1	/ )			7	
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
SLCOLHELO1	Feint	Collinsia Heterophylla - 100-200
ELLOUHETOR	Paint	Collinsia Heterophylla - 50 - 100 but there
		are thousands in the Same Drainage.
J		Further east
		Produm Sp
		Cal Poppy
		Creun rups
·		Plaseobothys Cupine SP.
		Cupiae se.
		Oction capitation
		Chia
		Dichelostemme Capatulum
		Seneiro Cal.
		Mimulus Fremonti
		Anuacoma acarlis
		Lusthenia Cal.
		•
OTAL NUMF	BER OF QCB DE	TECTED: 🔗 INDIVIDUAL

Page <u>2</u> of 12.

Recorder:	Natalk	Brodie/Evin	_ Add'l Pe	erson: 上	like Carriage	Date: <u>\</u>	ADV	2010	1
Project:	Camr	oo Wind Energy Proje	ect	Мар #: _	16	_ Survey Sxn: _			
GPS Unit :	#5				QCB Protocol Survey #	3	_ of	5	

TIME (	24-hour)	Temp (F°):	Wind (avg/max)	% CC	Sky	
START	1045	65°	4/7 mor	40%		nower
	ji45	720	4/8 mil	10%	clear patchy overcast drizzle sl	nower
	1330	740	2/5	. 6		nower
	1445	75°	2/5	ch	clear patchy overcast drizzle sh	ower
					clear patchy overcast drizzle sh	nower
	,		1		clear patchy overcast drizzle sh	nower
END	1540	730	3/6	Ø	cleap patchy overcast drizzle sh	nower

Habitat On-site (circle): open soils, hilltops, ridges, rock outcrops, soil crusts, clay soils, old roads, various nectar sources

Butterfly Species	Tally	Total
Behvs metalmark	HT MUK HT III	23
unidentified white		1
indentified blue	and the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of th	
Aprinotole	मा भाभा गा	19
Stathern blue	VIII	4
Perplexing hairstvenk	HT I	6
unereal Diskymina	JHI.	5
Pale swallowant		· ·
Acmon blue	ोभा ।भा ।। ।	12
Painted lady	3	
Leavisco. India	8	
	·	
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		Fieldlewack, GoldFields, Poplarn Flower
EB0102		Astragalus
EBOI .		Campo pea
EBOI		Campo pea 2 - 6
BUEBOI		Black tailed jackraphy
EBHLOI		Horned lizzard
FBHLOZ		Horned Ward (big one!)
		Antivipinum
FB01		Campo pea 11
EB0103.		Astrongalus 3
FEOIOH		Astropalis
EDOL 05		Astronalus S
EB01 06		Astrogalus 6
EBO 1 07		Astragalus 7
EBOI 85		Astroquie 3
FROI ON		Astragalog
	, , , , , , , , , , , , , , , , , , , ,	

Page _ 7 of _ 2_

Recorder:_	Natalie	Bradie/	EVIV Add'	l Person: _	Mike	Carriacy	Date:/	7 Apr a	26to
Project:	Campo	Wind Energy	Project	` Map #:	19	J	Survey Sxn:	Camp	0 - M
GPS Unit :	_#5				_ QCB	Protocol Survey # _	27	of	5 .

TIME (	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	1200	73°	3/6	Ø	clear	patchy	overcast	drizzle	shower
	1300	72°	3/10	d	clear	patchy	overcast	drizz!e	shower
				w.	clear	patchy	overcast	drizzie	shower
					clear	patchy	overcast	drizzle	shower
		4			clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizz!e	shower
END_	1330	740	2/5	Ø	(clear)	patchy	overcast	drizzle	shower

Habitat On-site (circle): open soils, hilltops, ridges, rock outcrops, soil crusts, clay soils, old roads, various nectar sources

Butterfly Species	Tally	Total
CA Marke	II THE PHYTHL	
Sara orangetup	TE N	2
Forevert Bookywing	IK I	-6
Southern blue		r-Culé-
Acmon blve	M M M M IN III	24
Bews Mctalmark	WINT IN II	17
Problema Hairribeak	וואעמא	. 12-
unidentified suffer		2
Aulf Fritillary (?)	1	1
		·
	· · · · · · · · · · · · · · · · · · ·	
<u> </u>		
		84)

MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		goldfieds, poprova flower fiddleneck
EBO1		Campo Deg 7
B0102		Campo per 3.
EB0103		Campo pea 9
F80104		Canos ca 10.
		1
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	-	
·		
<u>.</u>	BER OF QCB DE	TECTED: INDIVIDUAL

ECTED:	J	 - * *******	INDIVIDUALS
Page 2 of	<u> Z</u>	91	

				1 1014 5	011000				
Recorder:	Dal	e Powe	C ⁽ Add'l	Person:f	heling	Paiple	Date:	4/14	10
Project:	Campo	Wind Energy	/ Project	Map #: _	2	.3.	_ Survey S	kn: <u>Cam</u>	peg
GPS Unit :		13		-	QCB Prot	ocol Survey #	-	5 of 4_	5 .
			Wind						
	4-hour)	Temp (F°):	(avg/max)	% CC	C 2021. 2. ~		Sky		
START	10:45	690 75°	2/4	20	CWV Etea		overcast	drizzle	shower
	12,72	75	6/8	<u> </u>	dea		overcast	drizzle	shower
	13:30	790	-5/7	0	clea	-		drizzle	shower
	15:00	2	6/7	0	clea		overcast		shower
				·	clea			drizzle	shower
					clea		overcast	drizzle	shower
END Habitat On	-site (circle):	gnen soils	hilltops, ridges	rock outer	clear		overcast	drizzle	shower
	-site (circle).	wperi solis,	millops, ridges	5) IOEK OUIOI	opa, gon ci	usia, clay son	o Old regus,	Valious fier	ciai sources
		Butterfly	Species	<u> </u>			Tally		Total
Dat	NI OF ENI				11	计计计计	HT HE H	THE HIT	120
			the not		i we			an rivi	105
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7/10	\$ 2	n1 £ (				1114			
		Mowtai	1						4
<u> </u>	<u>ralçador</u>	\ <u>.</u>				411			3
<u> 7</u> a	intid	Lady				11		`tr	12
<u> </u>	abbs/6	10 W 10							1
5	mo val	Duskwin	4			Ht/ Ht	1 11		12
D	ask 4 mm	<b>.</b>	0			Her it	ct 147 14		18
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIS
		Lenthrus
		layra
		Ceonothus
		Phaeslia (2)
		Esch scholzia
		Malacothrix
		Plagio bothwas
		Plageo bothys Cryptantha
		Nemaphilia.
		Evicamera
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			Quino Che	ckerspot Bi Field Da	utterfly Pro ata Sheet	otoc	ol Survey	/		
Recorder:	MIKE	COUFFE	e Add'i			NE		Date:	19 APR	IL. 2010
Project: _	Campo	Wind Energ	v Project	Map #: _	TILE 2	30		_ Survey Sx	in: <u>CAMP</u> C	- P NORTH
GPS Unit	GAR	min 7	₹		QCB Prot	oco	l Survey #	_3_	of	5
TIME /	24-hour)	Temp (F°):	Wind	~ 00						
START	1100	69	(avg/max) Ø-> 6 ΥΥΡΗ	% cc 45%	clea		not also	Sky		
	1200	70	1->6	5%	clea		patchy patchy	overcast	drizzle	shower
	1300	75	Ø-75	5%	Clea		patchy	overcast overcast	drizzle drizzle	shower
	1400	75	0-74	5%	clea		patchy	overcast	drizzle	shower
	1500	ð٢	Ø->5	CLEAR	clea	<u> </u>	patchy	overcast	drizzle	shower
	1600	_ <del>7</del> 5_	276	CLEAR	clea	3	patchy	overcast	drizzle	shower
END	1630	7.5	Ø-73	CLEAR	clea	$\sum_{i}$	patchy	overcast	deisale	
Habitat On	-site (circle):	open soils	hilltopsyridges	rock outcr	ops, soil cr	usts	, clay soils	, old roads)	various nec	tar sources
		Butterfly	/ Species					Tally		Total
BEHR'S	METALN	1ARK)				4	ALLVIN	FIELD NO	TEROOK:	195
CALIFOR	NIAMA	2BLE						11	<u> </u>	17
FUNERE	AL DUSK	DAINY						11		25
YERRLEX	ING HAI	RSTREAK						15		スJ
PAINTE	D LADY	>						T.		1
CALIFOR	WiA 750	GFACE	(FEMALE)					TV.		1
QUIN	O CHE	KERSPO	BUTT	ERFLY	2			11		え
SPRIN	G WH	ÎTE		0	,			K		7
SOUTH	ERN BL	UE				•		T.		1
DESORT	- ORANG	E416						(1		1
SARA	ORANGE	FTIP						1 V		1
	.,,									
								7		
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
MCHLIO	POINT	
MCQB05	Point	CHASING MCQBOG. PHOTOS TAKEN
mcaB06	POINT	
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TOTAL NUMI	BER OF QCB DET	rected: RIDIVIDUALS

oject: _	Campo	Wind Energy	/ Project	_ Map #:	15 = 16		Survey Sx	n: <u>CA</u>	-po-L
	:_#7				QCB Protoco				-A1
TIME (	24-hour)	Tomp (E°):	Wind	% CC	1		Sky		
START		Temp (F°):	(avg/max)	50	Clear	patchy	overcast	drizzle	shower
IAKI	1130	705	6	30	clean_	patchy	overcast	drizzle	shower
	1200	73°	S	ø	clear	patchy	overcast	drizzle	shower
	1330	76	3	d	(Clear)	patchy	overcast	drizzle	shower
100	1400	76	4	ø	Clean	patchy	overcast	drizzle	shower
	100			~	clear	patchy	overcast	drizzle	shower
END	1500				clear	patchy	overcast	drizzle	shower
	n-site (circle)	open soils	hilltops, (idges	wock outc	rops, soil crust				
-		Butterfly	Species				Tally		Tota
Acm	on blue								4
0 .									1
CAL	eges tena				-				7
6.7	moralis				-+				4
E. S	pecies								5
C. p	emplaya								6
		4							l u
	BACA		3						4
					+	10			
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						3,000			
								DOMESTIC:	
				1					
	***************************************				SE (54)5405				Wy Jean Fall Street
	***************************************		-				P		4
				***************************************				19	

MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
15 4 16		Comprometus
		Blue Sticks
		Daby blue seps Arabis sp.
	·	Goldfields
		Goldfields Cesnothus.
		·
		•
·		

TOTAL NUMBER OF QCB DETECTED: ______ INDIVIDUAL

Recorder:	MIKE	COUFFE	2 <u></u>	Person:	NONE		Date: _	20 Ap	211, 2010
					MAP PILE		Survey Sxr	1: <u>CA</u> m	PO-N
GPS Unit:	GARLY	nin 2			QCB Protocol	Survey#	~~~~	of	<u> 5 .</u>
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC					
START	0945	65	1->5 mph	CLEAR	clear	patchy	Sky	ــــــــــــــــــــــــــــــــــــــ	-1
	1000	७५	2->6mp4	Ø%	clear		overcast	drizzle	shower
	1100	<b>ය</b> හි	2->8 mPH	5%	clear	patchy	overcast	drizzle	shower
	1700	68	2->5 mPH	5%	clear	patchy	overcast	drizzle	shower .
	1300	70	Ø->4 MPH	5%		patchy	overcast	drizzle	shower
	1400	72.	Ø SUMPH	10%	(clear)	patchy	overcast	drizzle	shower
FND					clear C	patchy	overcast	drizzle	shower
END	1445	70	Z->8me4	50%	clear	patchy	overcast	drizzie	shower
Habitat On-	-site (circle)	open soils	(nilitops ridges	erock outcr	ops)soil crusts,	clay soils;	old roads	arious ne	ctar sources

**Butterfly Species** Tally Total BEHR'S METALMARK TALLY IN FIELD NOTEROR 65 CALIFORNIA MARRIE PERPLEXING HAIRSTREAK ACMON BLUE L, SOUTHERN BLUE 6 HENNE'S CHECKERSPOT .. FUNEREAL DUSKY WING 4 **73** SARA ORANGETIP 1 WESTERN TALLED BLUE 11 PAINTED LAOT WEST COAST LADY . 1 DESERT ORANGETIP T. SPRING AZURE U. 1

MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
MCWWOZ	POINT	AOULT WHIPTAIL
Mcwwo3	POINT	ADULT WHISTAIL
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TOTAL NUM	BER OF QCB DE	TECTED: INDIVIDUALS
		Page $2$ of $2$

				Field Da	ata Sneet				
Recorder:	DAVID	R. FAUKW	Add'l	Person:	Evgens P	~¥°	Date:	20 ap	-: ( 2610
Project:	Campo	Wind Energy	/ Project	Map #: _	11 2 12		Survey S	XП: <u>Сањ</u> ф	ε
GPS Unit	# 7				QCB Proto	ocol Survey #	3	of	5 .
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	୯୩୯୪	59*	3	high eide	Clea	patchy	overcast	drizzle	shower
	0301	67		٠,٠	Clear	y patchy	overcast	drizzle	shower
	301	63	99	<b>85</b> .	clear	(patchy)	overcast	drizzle	shower
	1266	64	7	ų	clear	(patchy)	overcast	drizzle	shower
	1300	65	9	30	clear	patchy)	overcast	drizzle	shower
	1400	63	10	SO	clear	(atchy)	overcast	drizzle	shower
END	1500	ا بلاما	96	40	clear	patchy	overcast	drizzle	shower
Habitat On	-site (circle)	copen soils,	hilltops ridge	s, cock outer	ops, soil cr	usts, clay soils	s, old roads	, various <b>∡</b> €	cta) sources
		Butterfly	Species				Tally		Total
60	.30 *								7
•	•	<u>~</u>					· · · · · · · · · · · · · · · · · · ·		2
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C. 1	مساهم								
Ph-	10570								1
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
11/12		Goldfields
		Amsunkia
		Ceanothus
		composites
		Gryptantha
		Baby Wive such
		Conjetentha  Baby blue sepes  [ collensia - not in flower)
		•
		· ·
		<u> </u>
TOTAL MUSIC		TEOTED. (78 INDIVIDUAL)
TOTAL NUMB	BER OF QCB DET	rected: individuals

Recorder:	B. LOH	578014	Add'l	Person:	Faulener/	Engene	Date: .	4/20	1/10
Project: _	Campo	Wind Energ	y Project	Map #: _	5, 11, 12	-Acurt)	Survey Sx	n: <u> </u>	· · · · · · · · · · · · · · · · · · ·
	#10			- · · · · · · · · · · · · · · · · · · ·	QCB Protoco	ol Survey#	3 (?	) of	5
TIME (	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	0945	65°F	2-6/12	46%	Hazu/clear	patchy	overcast	drizzle	shower
	1045	65	4-10	40%	Hyz, blear	patchy	overcast	drizzle	shower
	1200	67	4-8	20%	/clear	patchy	overcast	drizzle	shower
	1300	69	6-9/12	40 %	clear	patchy	overcast	drizzle	shower
	1400	64	6-12	40 %	clear	patchy	overcast	drizzle	shower
	1440	67	6-12	50%	clear	patchy	overcast	drizzle	shower
END	1545	62	8-15	১ত হ	clear	patchy	overcast	drizzle	shower
		: open soils/	hilltøps, ridges				old roads,	various ne	ectar sources
				•		•			
		Butterfly	y Species				Tally		Total
ΔοκΛι	OX LAND	tairs tre							16
7 1.	1		4/5						26
<u> Sehi</u>	is We to		4	,					70
	real	Dusleyus	ng			·			
Gra	Walac C	hedars	set						1
De		arble	, , , , , , , , , , , , , , , , , , , ,						2
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		Lego
		BUSH
-		SATO
		INCSP
		WTSW
		RCSP
	. ,	BEWR
		Scia
		side blotched Lizard W. Whiptail
		cottontail
		Netar sources
	110	Anisocoma acaulis, Reachura, Cammissania
		Dopcern planer evodium, CA poppy
		botheria californica arcocarpus bet,
		Lots Strigosus Amsrukia Filia Dhaceliasp
		Demophila mustardy menzelia sp ceanothis
50 0		Layia glavely bya
BLAJOI	Rare plant	Carlanthos Similars I individuals
BLCPOI	11	Lathyris sprendens lindividual
31 GV01	· · ·	Gerea Viscidia 7 individuals
BL6102	(1	211 9 endividres
BLJROI	have while	Black tailed jacksalabit

INDIVIDUALS

Project:	Campo	Wind Energ	y Project	_ Map #:	3	Survey Sx	:	
GPS Unit	:5				QCB Protocol Survey #	3	of	5 .
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC		Sky		
START	1036	65	2-6	20	clear patchy	overcast	drizzle	shower
	1200	65	4-8 (14)	30	clear (patchy)	overcast	drizzle	shower
	1400	64	8-13(15)	50	clear (patchy)	overcast	drizzle	shower
	1600	66	4-10	50	clear (patchy)	overcast	drizzle	shower
				V - 37/0 14-1	clear patchy	overcast	drizzle	shower
					clear patchy	overcast	drizzle	shower
END		-			clear patchy	overcast	drizzle	

Butterfly Species	Tally	Tota
Acmon Blue	See Notebook	12
Behr's Metalmark		100t
Silvery Blue		Z
Sara's orangetio		3
Ruereal Diskwing		17
Sulphur (Cloudless?) &		1
Pale Swallowfail		- i
Pearly Martle		12
Diskguins		1.
Painted Lad 1		7
Tall vel Ed Edd )		3_
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		1
		-

MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
	Nectar	Phacelia purmy & distars
	Source:	Gilia capitalian
		Cercocarpus belloides
		Layia glandulosa
		ceanothus levcodermis
		Streptan thus campestris
		Escholtzia californica
		Coreopsis Californica
		Descurainen planeta
		Collinsiah
		Letus shigosus
		Ericamena lineanifica
		Encamena interity
		Caulantous simulans
	2 3 _ (	Lupinus bicolor & conginnus & francatus
516EOL	bird pt	OWL?
MMSCOI	sensitive plantpt	5 treptantnus campeshis - 5 plants
MMSCO2	, ,	in the
MMSC03	1	/1
MMSCOY	1,	1' - I plants
MMDSOI	11	Delphinium punishii 55 p. subglobosum - Caulanthus simulans end pt forridge
MMCSOI	(,	Caulantius simulans end pt forridge
		<u> </u>
		Common
		ornag
TOTAL NILINA	BER OF QCB DE	TECTED: O INDIVIDUALS

Page 2 of 2

				Fleid D	ata Sneet					
Recorder:_	Dale	Pawell	Add'l	Person:	Louis (	Councily	Date:	4/3	20/10	
Project:	Manzar	าเล Wind Ene	ergy Proje <b>c</b> t	Мар	#: <u> </u>	4	Survey	y Sxn: <u></u> <u></u> ъ	impo R	ī
GPS Unit :		13			QCB Proto	ocol Survey#	:	of	5	<u>.</u>
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% cc			Sky			
START	12:30	660	7/10	0	Clear	•	overcast	drizzle	shower	
		+			clear		overcast	drizzle	shower	
					clear		overcast	drizzle	shower	
					clear	· · · · · · · · · · · · · · · · · · ·	overcast	drizzle	shower	
					clear		overcast overcast	drizzle drizzle	shower shower	
END					clear		overcast	drizzle	shower	
	-site (circle)	: open soils	tilltops, ridges	s. rock-outc	pops, soif ch	usts. clay soil	s. old roads	various ne	ectar source	 `s
	,			-						_
		Butterfly	Species				Tally		Total	
Fune	in Du	Kuwini	0			Ž,			_	
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		Salvia colon Vaina
Postan -		Manzanita
		Erodium
		PlanabaTrys
		Plaja boTrys CrypToutha
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TOTAL NUM	BER OF QCB DET	rected: individuals

		_		Field Da	ita Sheet				
Recorder:	Dale	Pawell	Add'l	Person:	Lovie (	Connolly	Date:	4/2	20/10
Project:	Manzar	nita Wind Ene	ergy Project	Map #	#:	<u> </u>	Survey	/ Sxn:	im po Q
GPS Unit : QCB Pri					QCB Proto	ocol Survey#	3_	of	5 .
TIME (2		Temp (F°):	Wind (avg/max)	% CC		-	Sky		
START	9:50	640	416	0	Çlea	patchy	overcast	drizzle	shower
	10:45	660	416		clear	patchy	overcast	drizzle	shower
	, , ,				clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
END	,				clear		overcast	drizzle	shower
Habitat On	-site (circle)	open soils,	hilltops, ridges	s, rock outcr	ops, soil cn	usts, clay soils	s, old roads	various ne	ctar sources
			Species				Tally		Total
Ker	plexing	Hairs	treak						
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Behr's Metalmark						<u> </u>			1 7
Blue? Eneral Dukywing II Ous Kywing?							· · · · · · · · · · · · · · · · · · ·		
T	neral	Distraw	4						<u> </u>
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
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	***	Plagia bat by K Cryptantha
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DP#LO]	Point	San Diego Horned Cizard
TOTAL NUMI	BER OF QCB DE	TECTED: INDIVIDUALS

Page Of T

Recorder:			Add'l							
Project: Map #: 25 Survey Sxn: Comps R							R			
GPS Unit :		13	·		QCB Prote	ocol Survey#	3_	of	5	<u> </u>
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% cc			Sky			
START	11:00	66	4/6	$\bigcirc$	<clean< td=""><td>&gt; patchy</td><td>overcast</td><td>drizzle</td><td>shower</td><td></td></clean<>	> patchy	overcast	drizzle	shower	
	1320	66	7/10	0	Clea	patchy	overcast	drizzle	shower	
	.,.				clear	patchy	overcast	drizzle	shower	
					clear	patchy	overcast	drizzle	shower	
					clear	patchy	overcast	drizzle	shower	
					clear	patchy	overcast	drizzle	shower	
END					clear	· · · · · ·	overcast	drizzle	shower	
	-site (circle)	: open sails:	hilltops, ridges	s. rock outc	<u> </u>					ces
		,		,		, <b>,</b>		The same described in		
	·	Butterfly	/ Species				Tally		Tot	al
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		Crypthontha
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		Nemaphilia
		Lasthenia
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Page 2 of 2

Recorder:		Pawell	Add'i	Person: <u>La</u>	ne Con	ally	Date:	4/20	10
Project:	Ca <del>Manza</del> r	၉၁ <u>uta Wind Ene</u>	rgy Project	Map #: _	2	7	Survey	/ Sxn: 😉	mps R
		1 7	3						5 .
TIME (2		Temp (F°):	Wind (avg/max)	% CC			Sky		-
START	1200	620	8/11	10	gear	<b>o</b> atchy	overcast	drizzle	shower
	1615	620	9/14	10	clear	patchy	overcast	drizzle	shower
:					clear	patchy	overcast	drizzle	shower
					сlеат	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
END					clear	patchy	overcast	drizzle	shower
Habitat On	-site (circle)		•	, rock outcrops	s, soil crusts	s, clay soil	s, old roads,	overious ne	ectar sources
		Butterfly	Species				Tally		Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		LasThenia
		Eradium
		Caryptantha
		Plasia betous
		Manzourta
	- Ared - A	Wester Samuel
		others
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TOTAL NUM	BER OF QCB DE	TECTED: INDIVIDUALS

Recorder:	Dale	Powe	Add'l	Person:	Mike	Carriger	Date: _	4/23	10
Project:	Campo	Wind Energ	ıy Project	Map #: <u>_</u>	16	<b>V</b>	_ Survey Sx	(n: <u>( </u>	5+1-1
	:	-			_QCB Prot	ocol Survey #	<u> </u>	of	•
	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	1720	ŽŽ	7/10	10	rclea		overcast	drizzle	shower
	1720	67	8/10	10	clea		overcast	drizzle	shower
	1505	63	710	15	clea	2	overcast	drizzle	shower
	1672	60	2,110	10	clea		overcast	drizzle	shower
				-	clea	· · · · · · · · · · · · · · · · · · ·	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
END					clea		overcast	drizzle	shower
Habitat On	-site (circle)	: open solls,	, hilltops, kidges	s, rock-outc	rops, soil cr	usts, clay soils	s old roads	various nec	ctar sources
		Duttorfl	· Species	······································		T	Tally		Total
<b>A</b>			y Species			\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Idily		Total
Hen	son All	<u> </u>							
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		Laria
-		Plana barbyons
		Cryptontha
		- Lobinos
		Larthania
		Eredium.
		Escholzia
		Dichlostomma
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	- Anath	
TOTAL NUM	BER OF QCB DET	TECTED: O INDIVIDUALS

Page 2 of 2

Recorder:	DANIOK	- FAUIKNER	Add'l	Person:	osh Paipa		Date:	23 APA	2010
Project:	Campo	Wind Energy	Project	Map #: _	21,17	<del></del>	_ Survey Sxn	CAMPE	<u> </u>
GPS Unit	12				QCB Proto	ocol Survey#	3	of	<u>5</u> .
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	1100	59	ય	Ø	clear	patchy	overcast	drizzle	shower
	1200	60	6	Ø	Clear	<b>)</b> patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
	1				clear	, <del></del>	overcast	drizzle	shower
					clear	•	overcast	drizzle	shower
					clear	<del></del>	overcast	drizzle	shower
END	1300	61	9	Ø	Clear		overcast	drizzle	shower
Habitat On	i-site (circle)	i apen solis,	(illitops) rage:	SCIOCK OUIC	1009, SOII CIT	usis, ciay soi	ls, <b>old roads</b> ) v	anoustied	nar sources
		Butterfly	Species				Tally		Total
Euch	lee h. Lett	А							1
A. S.	ara								<u> </u>
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
#21		Sugar Bush
		Sugar Bish Cryptantha Amsinikia Gold Lacds Bins Dicks.
		Amsinkia
		Gold Lacds
		Bine Dicks.
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TOTAL MILLS		EOTED AND ADDIAGO
TOTAL NUME	BER OF QCB DET	ECTED:   MDIVIDUALS

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roject:	Campo	vvina Energy	/ Project	мар #:_	18		Survey S	kn:	1-8
GPS Unit	_ #2_		4	77 E	QCB Protoc	ol Survey#	3	of	5 .
TIME (	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	1300	618	9	6	Clear	patchy	overcast	drizzle	shower
	1400	62	S	10	clear	patchy	overcast	drizzle	shower
	1500	65	3	50	clear	(patchy)	overcast	drizzle	shower
- 15			-		clear	patchy	overcast	drizzle	shower
1		1			clear	patchy	overcast	drizzle	shower
C03W 53C			# 10		clear	(patchy)	overcast	drizzle	shower
END	1600	64	4	40	clear	(atchy)	overcast	drizzle	shower
labitat Or	ı-site (circle	): open soils,	hilltops vidges	Sock outc	rops soil crus	its, clay soils	old roads	Various 8	ectar sources
		Butterfly	Species				Tally		Total
PACE	ion								10+
A. Vi	itsus								15+
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
# 18		Coypton Our.
		Collersia (in flower)
		goldfields baby blue eyes
		Composites (white (yellow)
		Butterense
		Buttercups. Ceanoiteus
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TOTAL NUM	BER OF QCB DET	TECTED: Ø INDIVIDUALS

Page ______ of _____

Recorder:_	MIKE	COUFFER	Add'l	Person:	NON	E_		Date:	73 APC	214,2010
Project:	Campo	Wind Energ	y Project	Map #: _	Tiles 1	+5	s	urvey Sx	kn: <u>CAMP</u>	A o'
GPS Unit :	_GAQ	Min 7	-		_ QCB Proto	ocol Sur	vey #	3	of	<u>  5                                  </u>
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC				Sky		
START	1045	9	2 > 7 mpH	CLEAR	clear	nat pat	chy o	vercast	drizzle	shower
	1100	œ١	236	CLEAR	clear	pat	chy o	vercast	drizzle	shower
	1200	63	3-77		cleai	pat	chy o	vercast	drizzle	shower
	1300	59	3→7		clear	pate	chy o	vercast	drizzle	shower
	1400	Gl	4-99	CLUAR	clear		chy o	vercast	drizzle	shower
	- (4)5	59	4->9 mo4	CLEAR	clear	pate	chy o	vercast	drizzle	shower
END					clear			vercast	drizzle	shower
Habitat On-	-site (circle):	open soils	hilltopsgridges	rock outc	rops, soil cr	usts, cla	y soils, <b>ຜ</b>	d roads	gvarious nec	ctar sources
В		Butterfly	y Species				-	Tally		Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
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TOTAL NILLA		TECTED: INDIVIDUALS
TOTAL NUM	BER OF QCB DET	IECTEDINDIVIDUALS

Page <u>2</u> of <u>2</u>

Tield Data Si		
Recorder: Bonnie Hendricks Add'l Person: Luis	Connolly Date: 4/23	10
Project: Campo Wind Energy Project Map #:		40 F
GPS Unit: Garmin 10 QCB	Protocol Survey# of	
TIME (24-hour) Temp (F°); (avg/max) % CC	Sky	
START //255 59.5 4.3/812	clear patchy overcast drizzle	shower
(:70 62 . 4,3/12.1 0	clear patchy overcast drizzle	shower
2:15 65.3 26/49 0	clear patchy overcast drizzle	shower
ELO 3/10/61.5 8.01/15.1 10/0	clear) patchy overcast drizzle	shower
ENU 4:13 3/0 9.1/6:1 180 3	clear patchy overcast drizzle	shower
END	clear patchy overcast drizzle  clear patchy overcast drizzle	shower
Habitat On-site (circle): open soils, hilltops, ridges, rock outcrops, s		
Butterfly Species	Tally	Total
Behrs Motalmark	UH III	18
Para Dagina hay though	17'''	1
Man Blad I. In to	1,	1
Part	1	1
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Blue ristis	<del>/-</del>	
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Page 1 of 2

MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
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		Carl or as any het. Coarothus (um
		Paul Sachaltzia amsindaia
BH AR 03-15	host of al	attention tollows it dants
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TOTAL NUME	BER OF QCB DE	TECTED: O INDIVIDUALS

Page 2 of 2

Recorder:	Dale	Pow	2.[[ Add']	Person:	Louis	Councily	Date: _	4/24	10
Project: _	Campo	Wind Energy	Project	Map#:_	16		Survey Sx	n: <u>Com</u>	oHt
GPS Unit		10			QCB Proto	ocol Survey#	3	of	5
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	8:35	630	0/0	0	ciea	patchy	overcast	drizzle	shower
	24.45	680	13	0	clea	patchy	overcast	drizzle	shower
	11.30	770	3/6		Clear	patchy	overcast	drizzle	shower
	1315	770	4/6	0	Clear	patchy	overcast	drizzle	shower
					clear	r patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
END				·	clear		overcast	drizzle	shower
Habitat On	-site (circle):	open soils,	hilltops; ridge:	s, rock outc	rops, soil cri	usts clay soils	, old roads	various nec	tar sources
	<del> </del>								T _ :-
		Butterfly	Species				Tally		Total
Ho	uen Bli	) Q				M II	·		<u></u>
Fin	leven	Duskyu				HT I			6
	J6 J	30,000	9139			APT 1	111		9
Pad		toutai				***	111		
1.5	hv5 Ma	- 1	jat !	I was Wia u	استان تهمهن دو	Het Het	îtr 111+ 11	H (HT 14+1	65
<u> </u>	1647	- i accordin	140	por (or A	ior par year	]	A HALL A	THE THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF T	]
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		Evadium
		lastheria
		lação
		Learning
		Eschesbolzia
		Descoulaia
		MarzaniTa
	,	Phacetia (2trus)
		Salvia columbavion
		Plageobothyres
		Crystantha
		(genothy's
-		Dichlostoning
		Amsincetia
		Arabis
		· · · · · · · · · · · · · · · · · · ·
DPC561	Paint	Curlenthus stunding
	7 2 3	
DPHLOI	Parat	Son Diezo Marnod Lizard
DP HL 02	. 1	u

TOTAL NUMBER OF QCB DETECTED: _____ INDIVIDUALS

Page 2 of 1

Recorder:	Dale	Pawell	Add'l	Person: L	OUIS CO	u ao II,	Date: _	4/2	y ho
Project:	Campo	Wind Energy	Project	Map #: _	21	<del>\</del>	Survey Sx	n:	
GPS Unit:			<u> </u>		QCB Proto	col Survey#		of	5 .
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		·
START	1340	790	3/5		clear	patchy	overcast	drizzle	shower
	1540	750	4/6	0	Clear	patchy	overcast	drizzle	shower
		9	70		clear	patchy	overcast	drizzle	shower
	·				clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	· · · · ·	overcast	drizzle	shower
END					clear		overcast	drizzle	shower
	-site (circle)	open solisc	hilltops, ridge	s rock outer					
riabitat On	i dito (dirdio)	. aport ogno,	imis po, Alago	J, I COK OUTO	<u>ops</u> , co o	icto, diay conc	, 0,0,000	/ T CA TO 11 C	
		Butterfly	Species				Tally		Total
<u> </u>	,	•	Opcolco			11/1	1 willy		
	capano						611		7
gira	S Orga	agol co				WI WI			13
									1 7
1.1	nte?	d d				119			3
1 -20	je B					W 11			<b>ス</b>
		Hourstre	ak .			h			1
6	Alexa d	110111311	۷.			11			12
4	NS/of	DO211 4 10	ilug			- HT 141	17		1)
	Charle !	DIDE				11	3 1		1
10	leslale	101	60 cd C	· · ·	٠ ه	WIT -			
_	. А	*	,	_ \	90 LGV	- H11			+5
			ay to ?			fred			
	M childe	etal mark				JHT 111			8
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		Erodium
		Lasthenia
		1
-		Lopinos
		Eschoscholzia .
·	·	Description
		Man-zanita Phacelia
		Salvia calumbaria
		Plagio bothyvas
		Cyptontha
		Comothus
		DichlosTemmo
		Amsinchia
		Arabis
	,	
DR CHOI	Point	Chinese Houses
	, OW	- William I am a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a market and a m
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TOTAL NILINAL	BER OF QCB DET	ECTED: INDIVIDUALS

					ata Sneet				
Recorder:_	Mike	COUFFE	25 Add'l	Person:	_0	<u></u>	Date:	Z4 AP	RIL, 2010
Project:	Campo	Wind Energ	v Project	Мар #: _	TILE	17)	_ Survey Sx	in: <u>CAM</u>	PO G
GPS Unit:	GAN	Min Z			QCB Prot	ocol Survey#	_3	of	5
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START					clea	r patchy	overcast	drizzie	shower
1518		73	Z-XOMPH	CLEAR	Clea	_	overcast	drizzle	shower
1600		73	1->5mPH	CLEAR	clea	_	overcast	drizzie	shower
1623		73	1->3 MAH	CLEAR	clea	r patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzie	shower
END					clea	r patchy	overcast	drizzle	
Habitat On-	-site (circle)	open soils,	hilltops, ridges	rock outc	rops, soil cr	usts, clay soils	s, old roads	various ne	ctar sources
			/ Species				Tally		Total
CALIFOR	AM AIG	RBLE				PALLY IN F	iem Note	30015	8
BEHRS	METAL	MARK					()		40
PAINTE	O LADU						111		3
SOUTH	ERN B	LUE					΄u		2
PERPLE	AH DNÍX	IRSTREAK					r)		72
WEST	COAST	LADY					11		ス
SPRIN	6 WHIT	<u> </u>	·				18		ス
	_	SWALLOW	TAIL				11		3
RROW	M ELFIN	<u> </u>					L ₁		ス
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
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TOTAL NUM	BER OF QCB DET	TECTED: NDIVIDUALS

Page  $\overline{Z}$  of  $\overline{Z}$ 

	0.00				ata Sneet				
Recorder:	(V)IKE	COUFFE	e Add'l	Person:		>	Date:	24 APG	21L, 2010
Project:	Campo	Wind Energ	y Project	Map #: _	TILE	11	_ Survey Sx	n: <u>CAY</u>	APO C
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% cc			Ci		<u> </u>
START	1240	70	2-79 MPH	CLEAR	Clea	, Destabli	Sky		
	1300	77	Ø->4 MPH	CLEAR	Clea		overcast	drizzie	shower
	1320	82	Ø->3mpH	CLEAR	clea		overcast	drizzle	shower
	1400	77	Ø-72 MPH	CLEAR	clea		overcast	drizzle	shower
	1500	73	1->9 meH	CLEAR	clea	*	overcast overcast	drizzle	shower
			, , , , , , , , , , , , , , , , , , , ,		clea	and the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of th	overcast	drizzle drizzle	shower
END					clea	r natchy	0.40.404	alulus I s	shower
Habitat On-	site (circle)	open soils	hilltops ridges	, rock outer	ops, soil cr	usts, clay soil	old roads	various ne	shower
							*		olar codroco
			y Species				Tally		Total
CALIFO	RNIA M	ARBLE				TAUVIN	FIELD NO	TERME	9
		TOULDAW					11	1,0001	1
		LMARK				. ()			84
	E SULPI		_				11		1
_		Airstre	2K				C		6
FUNER	AL Dust	<u>-ปหโพนูร</u>				4			5
QUIN	CHE	KERSP	OF BUTT	TERFILL	5	11			1
PAINTE	O LAP	y >					11		L
BROWN	V ELFIR	4					Ц		1
SARA	ORANGE	TIP					C(		1
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
MCQB07	Point	BAOLYS WORN INDIVIDUAL ON OLD ROAD.
•		(NAD 83) 115 0560710, 3617216
MCHLII	POINT	
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TOTAL NUM	BER OF QCB DE	TECTED: (1) INDIVIDUALS

Page Z of Z

	-				ata Sheet		,			
Recorder:	Mike	COUFFE	Add'l	Person:		>_		Date:	24 AP	211, 2010
			y Project							
GPS Unit	- GARN	11N 2			QCB Prot	tocol	Survey#	3	of	5 .
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC				Sky		<u> </u>
START	0900	66	0	CLEAR	etea	ir)	patchy	overcast	drizzle	shower
	1000	70	8	CLEAR	Clea	<b></b>	patchy	overcast	drizzle	shower
	1100	73	6->3meH	CLEAR	clea		patchy	overcast	drizzle	shower
	1200	7/	Ø->3	CLEAR	clea	2	patchy	overcast	drizzle	shower
	1210	7/	0-23	CLEAR	clea	D _	patchy	overcast	drizzie	shower
					clea	r	patchy	overcast	drizzle	shower
END Habitat On	cito (cirolo)	Conon coile	hilliann sistem		clea	r	patchy	overcast	drizzle	shower
Habitat OH	-site (Circle)	Copert soils,	hilltops, ridges	t rock outer	ops) soil cr	usts,	clay soils	Old roads	various ne	ctar sources
		Butterfl	y Species					Tally		Total
CALIFORN	ia Mars	LE				7	ALLY IN F	6		
Acmon	BIVE							11		7
PERPLE	XING HA	instreak.						tt.		9
	HEAD BLU							EC.		2
	METALM							٠,		100
_	ERN BLU					1,				3
FUNERE	AL DUSK	NWING				L)				4
PAINTE	D LAOV					11				1
Common	1 <u>5007yw</u> 1	NG (PH	OLISORA CA	TULLUS)		•1				
	STINU &					. "				ん
	<u>κος Συι</u>						,	ι,		1
ORANG	E SULPH	UR (ALFI	ALFA BUTTER	౯ట్రు)						1
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
MCB201	Point	
MC LA 67	POINT	
Mcwwol	POINT	
		·
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TOTAL NUME	BER OF QCB DE	TECTED: INDIVIDUALS
		Page <u>2</u> of <u>2</u>

Field Data Sheet										
Recorder:	MIKE	Person:	<u>Ø</u>		<u></u>	Date: <u>25 APPIL, 20</u>		14, 2010		
			v Project					Survey S	kn: Cami	20 6
GPS Unit: GARMIN 1					QCB Proto	ocoł Su	rvey#_	3	of	5
		1	1045-4	1				<u> </u>		
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC				Sky		
START	1150	80	Ø->4MPH	CLEAR	Clear	pa	tchy	overcast	drizzle	shower
	1200	80	0->4 MPH		Clear		tchy	overcast	drizzle	shower
	1300	85	Ø->/m9H	CLEAR	clear	•	tchy	overcast	drizzle	shower
	1400	78	Ø->4 MPH	CLEAR	ctear	· ·	tchy	overcast	drizzle	shower
	1500	<i>7</i> 5	BYMF FCE	CLEAR	Clear		tchy	overcast	drizzle	shower
	1515	75	H9m FeE	CLEAR	Clear	) pat	tchy	overcast	drizzle	shower
END					clear	pat	tchy	overcast	drizzle	
Habitat On	-site (circle)	open soils	hilltops\ridges	rock outcr	ops, soil cru	usts, cla	y soils¢	old roads	various nec	tar sources
				*.						
<u> </u>	^-		y Species					Tally		Total
13EHRS	METALL	DACK				TALL	YINF	TELD NO	TEBOOK	105
CALLEDO	win Ma	COLF					L	1.1		

Butterfly Species	Tally	T-4-1
BEHR'S METALMARK	TALLY IN FIELD NOTEBOOK	Total
CALIFORNIA MARBLE	THEY IN FIELD NOTEBOOK	105
PERPLEXING HAIRSTREAK	11	8
PAINTED LADY)	Lą ·	29
FUNEREAL DUSKYWING	Nr.	<del></del>
PALE TIGER SWALLOWTAIL	"	_5_
		_3
SOUTHERN BLUE	- 11	4
SARA ORANGETIP	11	_5_
ORANGE SULPHUR	Lį	1
SPRING WHITE	11	R
	·	

MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
MCLA NESTING	Point	HORNED LARK CHASING OFF OTHER BIRDS IN THE AREA.
MCLAOB	POINT	NEST ASSUMED TO BE IN THE VICINITY OF THIS POINT.
MCLAOX	Point	
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19		
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	<u>.</u>	
w	BER OF QCB DE	TECTED: O INDIVIDUALS

Page Z of Z

	- 00	_			ata Sheet				
Recorder:	Mike	COUFF	EC Add'I	Person:			Date:	Z5AF	PRIL 7010
Project: _	Campo	Wind Energ	ıv Project	Map #: _	TILE	12	Survey S	xn: <u>CAm</u>	PO G
GPS Unit	GAR	min 1			QCB Prof	ocol Sun	/ey#3_	of	5 .
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			-19		
START	0830	76	05	CLEAR			Sky		<u> </u>
	0900	74	Ø->1 mp4	CLEAR	Clea	×		drizzle	shower
	1000	77	Ø-> 1 mPH		cfea	<del></del>		drizzle	shower
	1100	78	Ø>3mPH		clea	<del></del>		drizzle	shower
	1130	79	Ø-> Zmeh	CLEAR	clea	7		drizzle	shower
		1	, , , , , , , , , , , , , , , , , , , ,	CCCPXC	clea			drizzie	shower .
END								drizzle	shower
Habitat On	-site (circle)	open soils.	hilltops ridges	Mock outer	clea	r patc	hy overcast soils old roads	drizzle	shower
				ALGON GONG!	OP37 3011 CI	usis, clay	solis, old roads	various ne	ctar sources
			/ Species				Tally		Total
CALIFO	M AINSK	PAZRLE_				INFI	ELO NOTEBOO	ماد	6
FUNER	EAL DU	รหวุนก็ฟ	<u>6-</u>				11		5
		UE					b,		ス
		AIRSTRE/				E §			40
<u>BEHR'S</u>	METAL	MARK				45			114
		<b>E</b>					41		120
	O LADY						( )		5
							11		2
		ATWOLLA					11		1
		}				<u></u> .			1
Hemo	ON BLUI	<u> </u>	<u></u>				11		2
***************************************									
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			, , , , , , , , , , , , , , , , , , , ,	<del></del>					
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
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		the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s
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	·. ·	to Maria Caranta
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		- Professional
TOTAL NUMI	BER OF QCB DET	FECTED: INDIVIDUALS

Recorder:	Dale	Powe	Mdd,1	Person: L	21002	anually	Date:	4/25	10
Project:	Campo		y Project			(		-	pat
GPS Unit :		10			QCB Prot	ocol Survey	#3	of	5 .
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	1215	792	3/5	0	cléa	patchy	overcast	drizzle	shower
	1411)	マネン	517	0	clea	patchy	overcast	drizzle	shower
	1615	770	3/6	_ 0	Clea	patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
	***				ciea	r patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
END			1.293	***************************************	clea		overcast	drizzle	shower
Habitat On	-site (circle)	copen sons,	hilltops_ridges	COCK OUTC	rops soil cr	usts, elay so	is, old roads	various ne	ectar sources
		Butterfly	/ Species	-			Tally		Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		LoTus scapanus
		Phacelia (2Tyres)
		tschschdzia
		Cryptoutha
		Plagiobethyris
		Monzonita
		Carmothus
		Oich losteming
		Tradina
·		layia
		Posstamas
		(UPINUS (3types)
		Call Re & Robert
		Costilled & Grudian Hamilton
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DOHLOI	Point	Son Diego Harnel Lizard
DAMPOL	4014	- Jan Diedo Hannah First
<u>,</u>		
DPC301	POINT	Covanthus simulars
(5)	)t	11
67	l _l	11
TOTAL NILINA		
TOTAL NUM	BER OF QCB DET	INDIVIDUALS

Page 1 of 2

Recorder:_	Dale	Po	well Add'l	Person: L	ours (	Conrally	Date: _	4/2	5/10
Project:	Campo		y Project						
GPS Unit :		0		,	QCB Proto	ocol Survey#	3	of	5 .
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	8:40	600		0	Clea	D patchy	overcast	drizzie	shower
	10:10	740	375	0	Clear		overcast	drìzzle	shower
	11.05	76°	415	0	<cl>clear</cl>	patchy	overcast	drizzle	shower
	,,	•		•	clear	r patchy	overcast	drizzle	shower
					clear		overcast	drizzle	shower
					clear	, , , , , , , , , , , , , , , , , , ,	overcast	drizzle	shower
END					clear	patchy	overcast	drizzle	shower
Habitat On	-site (circle):	open soits,	hilltops, ridges	s, rock outer					ctar sources
			/ Species				Tally		Total
Paint	of lad	14				LAM			5
Mark		7				()			Ž
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Bhue						Wel 1			6
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		Costellya sp. (Indian Paint brish)
		Playla Wathynus
		lasthania
		Crustantha
		Evadium
		Araphis
		Evicameria
	· ·	Amous Ku
		Caenothis
		Manzanta
		Namaphilia
		Lagra
		Phacelia
	·	Salvia columbarios
	·	·
	·	
D68201	Pont	Black Filled Jack Ratobit
TOTAL NUMI	BER OF QCB DET	rected: individuals

Page 2 of 2

Project: _	Campo	Wind Energ	y Project	Map #:_	19		Survey Sx	on: <u>Can</u>	00- N
GPS Unit	:_SM 1	3			QCB Protocol	Survey#	3	of	5 .
TIME (	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky	¥).	
START	0930	W0169	calm	Ø	clear	patchy	overcast	drizzle	shower
	1030	72°	calm	6	clear	patchy	overcast	drizzle	shower
0.	1130	760	2/4	6	clear	patchy	overcast	drizzle	shower
	1235	750	calm	6	clear	patchy	overcast	drizzle	shower
_	1340	760	calm	Ø	clear	patchy	overcast	drizzle	shower
				- ALLENO	clear	patchy	overcast	drizzle	shower
END	1520	740	calm_	Ø	clear	patchy	overcast	drizzle	shower

Butterfly Species	Tally	Total
CA Marble	भंग भंग भंग ।।।	16 :
Perplexing Hairstreak	par yar harti	17
Ben's Metalmark	THE WITH THE THE THE THE THE THE THE THE THE	55
Southern blue	1	1
Acmon blue	1/11	4
grown elfin	1	ı
Anisc swallowfail	11	2
Sara orangetip	yr III	9
Painted lody	N.	5
Fineral Duskywing	133)	4
unidentified suffer	11	2
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) - 110/-0-95001		
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goldfields, Depton flower, grandpink NEHLOZ NEHOI NECHOI NECHOI NECHOI NECHOZ Ollingia concolor 20 individuals 213 m m (collingia concolor, 1806 individuals (100+) NECHOZ Ollingia concolor, 100+ individuals 577m	MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
NBHLOZ  NBHLOZ  Horned Lizard  Horned Lizard  Collingia concolor, ~20 individuals 2×3 m an  NBCHOZ  Collingia concolor, Book individuals (100+)			goldfields, popcorn flower, around pink
NBHLOZ  Horned Lizard  Collingia concolor, ~20 individuals 2×3 m an  NBCHOZ  Collingia concolor, Book individuals (100+)	NBHLDI	print	Horned Lizard
NBCHOI Collingia concolor, 20 individuals 2x3 m an NBCHOZ Collingia concolor, Box individuals (100+)			Horned Lizard
NBCHOZ Collinsia concolor, Bot individuals (100+)			
			Collinsia concolor, Box individuals (100+)
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	•		
TOTAL NUMBER OF QCB DETECTED: INDIVIDUALS			TECTED: Ø INDIVIDUALS

Page  $\frac{2}{}$  of  $\frac{2}{}$ 

Recorder:	Dale	Par	ı <u>c∭</u> Add'l	Person:	30 1	Willey	Date:	4/26	40
Project:	Campo		y Project	Map #: _		13 1	Survey S	xn: <u>Cam</u>	po Q
GPS Unit	·				QCB Prote	ocol Survey#	3	of	5 .
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		,
START	8:30	740	0/0	Q	Clea	patchy	overcast	drizzle	shower
	10:25	780	4.7	$\bigcirc$	Clea	patchy	overcast	drizzle	shower
	11:30	05	<u> </u>	0	Clea		overcast	drizzle	shower
					clear		overcast	drizzle	shower
	,				clea		overcast	drizzle drizzle	shower
END					clear	<u> </u>	overcast	drizzie drizzle	shower shower
	-site (circle):	open soils,	hilitops, ridges	s, teck outer		usts, clay soils	old roads.	Various ne	ctar sources
	1	Butterfly	Species				Tally		Total
Save	a's Or	syc fo				# 111	Afr ar	H1 111	28
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		Eradion
		lagia
		Lasthenia
		lupinu
		Mananita
•	:	Pensteman
		Crypthantha
		Plagabothyrus
		Plagishathyrus
		Nonophilia
		Dichlostenma
		Carnothus
		Phacetia
	·	Castollia
		J
-		
	BER OF QCB DE	TECTED: (1) INDIVIDUAL

Page 2 of 2

Project: Campo Wind Energy Project Map #:									
roject: _	Campo	Wind Energy	y Project	_ Map #: _	8		Survey S	kn:	(no O)
GPS Unit	9_				QCB Proto	col Survey#	3	of	5
THE !			Wind			12	-		
	24-hour)	Temp (F°):	(avg/max)	% CC			Sky		
START	1400	670	2 mph	5	clear	patchy	overcast	drizzle	shower
	1500	80,	6	5	clear	patchy	overcast	drizzle drizzle	shower
					clear	patchy patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
				j	clear	patchy	overcast	drizzle	shower
END	11-00	750	S	260		patchy	overcast	drizzle	shower
All and the property of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the la	-site (circle)	: open soils,	hilltops, ridges	s, rock outc	rops, soil crus				
45: P		Butterfly	Species			Tally		Total	
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
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		26/2026
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TOTAL NUMI	BER OF QCB DET	TECTED: Ø INDIVIDUALS

Recorder:	Disvero i	C. FAUIKNY	Add'l	Person:	1054		Date:	26 APR:	L 2010
Project:	Campo	Wind Energy	/ Project	Map #: .	15		_ Survey S	xn: <u>Сан</u> ф	0-K
GPS Unit	#9				_ QCB Proto	ocol Survey#	3	of	5 .
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC	,		Sky		
START	0900	^ገ ት5 [©]	Ø	Ø	cléai	patchy	overcast	drizzle	shower
	1000	7-70	Dugh	Ø	Clea	patchy	overcast	drizzle	shower
					clear	r patchy	overcast	drizzle	shower
					clear	r patchy	overcast	drizzle	shower
					clear	r patchy	overcast	drizzle	shower
					clear	r patchy	overcast	drizzle	shower
END	1100	79°	Huph militops ridges		clear	r patchy	overcast	drizzle	shower
Habitat On	-site (circle)	open soils?	militops ridges	s, reck outc	rops) soil cri	usts, clay soi	s, old roads	, various ne	ectar sources
		Butterfly	Species		·		Tally		Total
V, CA	rdui								2_
A.S	trA								2_
E. pn	sportius								3
									4
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	LOW			<del>'/</del>					7
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بالم ک	meralis								3
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
15		Blue dicks
		Cone Stank
		Ceanothers
		Conothers goldfields
		0
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TOTAL NUM	BER OF QCB DET	TECTED: Ø INDIVIDUALS

Recorder:	DAV.DI	c. FAUIKL	Add'l	Person:	Josh	Α	Date:	26 Apr	1 2410
			/ Project						
GPS Unit	#9				QCB Proto	ocol Survey #	3_	of	<u>5</u> .
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	COOD	79°	4	Ø	clea	r patchy	overcast	drizzle	shower
	1200	83°	Ø	6	clea	r patchy	overcast	drizzle	shower
	1300	83	Ø	5%	. clea	r (patchy)	overcast	drizzle	shower
					clea	r patchy	overcast	drizz!e	shower
					clea	r patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
END	1400	879	2	5%	clea	patchy	overcast	drizzle	shower
Habitat On	-site (circle)	copen soils.	hilltops ridges	s, <b>∢ock</b> outc	rops, soil cr	usts, clay soil	s, <b>old roads</b> ,	various <b>n</b> e	ctár sources
		Butterfly	Species				Tally	***************************************	Total
A SA	<b>^</b>								2_
с. р	nplexa								2
E. Lu	meralis								2_
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Δ .37	Jan								25+
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (MECTAR SOURCES, GENERAL WILDLIFE LIST)
11		Collensia
		Goodfields
		Ambinelia
		Ceanothus Baby blue eyes-
		Baby blue seges.
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TOTAL NUMI	BER OF QCB DE	ΓECTED: 🥢 INDIVIDUALS

Recorder:_	Mike	COUFF	EP Add'I	Person:	0		Date:	76 API	21L,2010
Project:	Project: Campo Wind Energy Project Map #:					23	_ Survey S>	kn: <u>CAM</u>	PO Q
GPS Unit :	GAen	nin 10	)		QCB Proto	ocol Survey #	#3	of	<u>5</u> .
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	1335	83	Ø-72m9H	CLEAR	clear	patchy	overcast	drizzle	shower
	1400	820	0->3 mph	CLEAR	clear	~	overcast	drizzle	shower
	1500	80	2->6 mPH	5%	ciea		overcast	drizzie	shower
	1600	79	2->6mpH	5%	clear	patchy	overcast	drizzle	shower
		·			clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
END					clear		overcast	drizzie	shower
Habitat On-	-site (circle)	open soil	hilltop® ridges	rock outer	rops soil cr	usts) clay soi	ls, old roads	various nec	ctar sources
		Butterfl	y Species				Tally		Total
CALLED	M GINS					Pailv IN	FIELD NOT	ERANES	7
						177007 111	LIECT IADI		9
	METAL	MARK	·						170
		Tywing					~ ~ ~		1
	EAL DUST						· ty		14
(2)	V CHEIR	-60100 - 5	BUTTERFLY	$\overline{}$			ί		1
Orccia	·~ 3 NO	W. T.	BUT DIO NO	- Cacià	inc m	00.000.0			
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
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MCQB08	POINT	MIDDLE - AGEO" (DUIND AT (NADS3) 115 0560671, 3611605
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TOTAL NUMI	BER OF QCB DE	TECTED: 1 INDIVIDUALS

Page 2 of 2

Recorder:	MIKE	COUFFE	Add'l	Person:	Ø		Date	Z6 APC	21L, 2010
Project:	Campo	Wind Energ	ıy Project	Map #: _	ONA N	7	Survey S	Sxn: <u>CAm</u> (	20 D
GPS Unit :	GAn	rwin 1	<u>0</u>		QCB Prote	ocol Survey	#_3	of	5 .
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC		•	Sky		
START	0845	マス	1->5 mPH		clea	patchy		drizzle	shower
	0900	73	Ø->3	CLEAC	Clea	_		drizzle	shower
	1000	72	Ø->3	CLEAR	clea	`		drizzle	shower
	1100	80	0->6	CLEAR	cléa	patchy	overcast	drizzle	shower
	1130	820	Ø->2 mPH		clea		overcast	drizzle	shower
					clea	patchy	overcast	drizzle	shower
END					clear		overcast	drizzle	shower
Habitat On	-site (circle)	open soils,	nilltops ridges	s, rock outc	rops, soil cr	usts, clay s	oils old road	various ne	ctar sources
		Butterfl	y Species				Tally		Total
CALLE	ornia P	MARGLE	·			TALLY	IN FIELD	NATES	8
	EO LAD					(	11	T Tall 5 Tolerand	して
	s MEF	/					M		116
_	RT ORA						11		
	REAL DO						N)		4
	N BLUE						11		1
	TIGER SU		iL				11		
WEST	GAST LA	حرود					H,		
	N ELFIN						H.		1
_	WIA SOUTY						ц		l
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
MCHLII	Point	JOVENILE
•		
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		·
TOTAL NUM	BER OF QCB DET	TECTED: INDIVIDUALS

Page 2 of 2)

			Quino Che		utterfly Pro ata Sheet	tocol Survey			
Recorder:	S. Pin	k	250 Add'i	7.	1	tolles (Ke	(www) Date:	4/27/	ÌD
Project:	Manza	LMD 6	e <del>rgy Pr</del> oject	-	#: <u>8</u> F,	88		y Sxn:	
* *	Λ	nice vvina em	CTGT PTGLAST		¥	ocol Survey#	g.		
GPS Unit					QCB PIOR	ocor Survey #	/	0	-
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	0912	~70	1-2/5	2-5	clea	The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s	overcast	drizzle	shower
	1080	70	2-3/1.5	3-2	clea		overcast	drizzle	shower
	11 70)	7	2-3/5	5-7	clea	The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s	overcast	drizzle	shower
	12-30	/3	3475	10-18	clea	The same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the sa	overcast	drizzle	shower
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					clear	, , , , , , , , , , , , , , , , , , , ,	overcast	drizzle	shower
END	oito (airala)	open soils	hilltops, ridge	e rock outer	clear		overcast	drizzle	shower
nabitat Of	I-site (Circle)	. open sons,	militops, nage	s, rock outc	ора, зоп сп	usts, clay sone	, old rodd	s, variodo noc	
		Butterfl	y Species				Tally		Total
llen	1000 Rom	0				TH			
201	is well	NUMBER				MI HILL	###		(30)
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the state of	1.18 M. 1.16	8 111 1				1111			(4-)
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
SPLOCOL	pt.	role Concalor (n=1)
	ht.	rol-nortolor (n=5)
	De.	rol. norcolor (m=10)
	Sand Justine	
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	DED OF OCD DET	ECTED: X/ INDIVIDUALC

Page  $\frac{1}{2}$  of  $\frac{1}{2}$ 

Field Data Sheet									
	Recorder: NIKE COUFFER Add'l Person: NONE Date: 27 APRIL, 2010								
Project: Campo Wind Energy Project Map #: MAP TILE Z4 Survey Sxn: CAMPO - RO								PO-R)	
GPS Unit:	GARY	ที่ผ3			QCB Protocol	Survey#	BU	of	<u>5</u> .
		]	Wind				23 2 2 2		
TIME (2	4-hour)	Temp (F°):	(avg/max)	% CC			Sky		4 1
START	1200	8	Ø->3009H	5%	Cléar	patchy	overcast	drizzle	shower
	1300	80	49m 81 C-F	5%	clear	patchy	overcast	drizzie	shower
	1400	75	49M F 7- E	10%	clear	patchy	overcast	drizzie	shower
	1500	76	Ø-> 2 MPH	10%	clear	patchy	overcast	drizzle	shower
	1600	76	Ø-> 4 mpH	10%	clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
END	-i6- (-iI-Y				clear	patchy	overcast	drizzle	shower
nabitat On-	site (circle)	open sols,	hilltopa, ridges	, tock outer	ops, soil crusts,	clay soils,	old roads	arious ne	ectar sources

Butterfly Species	7.1.	
BEHR'S METALMARK		Total
GABB'S CHECKBOSPOT	IN FIELD NOTEBOOKS	
ORANGE SULPHURS	, u	7
Acmon Blue	"	
Parties See	- C	F
PAINTED LADYD	ly.	4
CAUFORNIA MARRIE		
HENNE'S CHECKESSPOT	t \	40
FUNEREAL DUSKYWING	11	7
PALE TIGER SWALLOWTHIL	15	(3
CALIFORNIA SOOTYWING	11	J
QUINO CHECKERSPOT BUTTERFLY)	1.5	, 2

MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
MCQB09	Point	UPPER LEFT WINGTIP MISSING (MADRE) 115 0556986, 3609928
MCHLIZ	Point	
MCQB10	POINT	BOTH WINGTIRS INTACT. (MAD 83) 115 0556 995, 3609943
MCHLIZ	Point	
MCQBII	POINT	(NAO 83) 115 0557077, 3610140
		59 NUMBERZEO POINTS ARE COLLINSIA LOCATIONS.
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	,	
TOTAL NUM	BER OF QCB DE	TECTED: 3 INDIVIDUALS

Page 7 of 7

Recorder:	Mike	COUFFE	Add'l	Person:		0	Date:	a7 AF	010 ZOIO
Project:	Campo	Wind Energ	v Project	Map #: _	# 2	-\	_ Survey S	xn: <u>САУУ</u> Г	PO-R
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC			01	· · · · · · · · · · · · · · · · · · ·	
START	0818	구2	(avg/max)	CLEAR	clea	patchy	Sky	drizzle	
	0900	73	Ø⇒2	CLEAR	clea		overcast overcast	drizzle	shower shower
	1000	76	135	CLEAR	clea		overcast	drizzle	shower
	1100	77	Ø->3	CLEAR	clea		overcast	drizzle	shower
					clea		overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
END					clea	rpatchy	overcast	drizzle	_shower
Habitat On	-site (circle)	: open soits)	hilltopsSridge	Tock outcr	ops, soil cr	usts, clay soils	old roads	various ne	ctar sources
			/ Species				Tally		Total
BEHRS	METAL	MARK.				IN FIELD	NOTER	00 C	350
PAINTE	P LARY	د					£\	<u> </u>	7
		MARBLE					K		5
		ITE					11		<u>ス</u>
		<b>}</b> L					1		
	ORAN						スノ		
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
NONE		-
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		·
TOTAL NUMBER		FECTED: (NIDN/IDLIAL C
TOTAL NUMI	BER OF QCB DET	TECTED: INDIVIDUALS

Page  $\overline{A}$  of  $\overline{A}$ 

Recorder:_	Dale	Pawel	Add'l	Person:	Philip	Paipa	Date:	4/27	10
Project:	Campo	Wind Energy	/ Project	Map #: _	23	)	_ Survey Sx	kn: <u>Ča</u>	pr Or
GPS Unit:		· magaz			QCB Proto	ocol Survey #	#	<u> </u>	5
	8/45	Temp (F°):	Wind (avg/max)	% cc	Clea		Sky	مامسام	ah awar
START	11'10	770	2/1	<u>~</u>	clea		overcast	drizzle drizzle	shower
	11(1)	77	2/8	(	clear		overcast overcast	drizzle	shower
				<u> </u>	clear		overcast	drizzle	shower
					clear		overcast	drizzle	shower
					clear		overcast	drizzle	shower
END					clear		overcast	drizzie	shower
	-site (circle)	:open soils	hilltops; ridge:	s Fock outc					
								The second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second secon	
			Species				Tally		Total
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	pro-Mas	7 1	r H. H	TATE HO A	ar mr. HU	Klyso m	HA THE THE	HMM	1 0
	Mrs Anne	for mor	Y 带棋	THE HILL	黑無無	M M IN	震量	MMM	(60
¥	Marlola	mal/				the the	HT XU		20
	Ovouses								1
	Yellow?					4			1
	F. Aml	n.x.				il			っ
	UNEAR!	Duskwin	Ĵ				and larger to		
	MOSKYW	Na				. 1	HH MT		10
	White?		·			My Hu	M		15
	Homas	-blue-				MILL			8
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST
3		Costheria
		Lavia
		0.1
	:	Skacalia
,		CarnoThus
		Eradium.
		Manzanta
		Collesia
		Penstemon
		Nomanhilia
F		Pla is bothyri
		Play is bothyru
		•
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Page 2 of 2

Recorder:_	Dale	Powel	Add'l	Person:	Phillip	Paire	Date	: 4/25	7/10	
Project:	Campo	Wind Energy	/ Project	Map #: _	2	<b>-</b>	Survey \$	Sxn: <u>Ca</u>	PR	
GPS Unit :					QCB Prot	ocol Survey	#	<u>U</u> of	5	
TIME (2		Temp (F°):	Wind (avg/max)	% CC			Sky			
START	11:40	740	_5/7 <del>_</del> _	0	Cléa		overcast	drizzle	shower	
	13:45	720	6/9	$\bigcirc$	Clea CLVV V Clea	patchy_	overcast	drizzle	shower	
	15 56	570	518	9	CNI O Clea	r patchy	overcast	drizzle	shower	
	1500	T 2	T110				overcast	drizzle	shower	
					clea		overcast overcast	drizzle drizzle	shower	
END					clea		overcast	drizzle	shower	
11	-site (circle):	open soils.	hilltops, ridge	. rock outc				ls, various nec		rces
				,			,			
		Butterfly	Species		·		Tally		To	tal
Pale	- Swal	lowtri				1.				
Q.L.	•	1 1	1407	hu ilt	Htt 1111	DHF 100	HITAH	HT HH HH	60	
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įνω	aple					147 11			T	15
<u>Cha</u>	<u>kodova</u>					Htt Ht	THE HUT	HIG MI HI	1	(35)
(50	in colalis	Jogers Nos			1 114	111 1119	HITHI	HIGHT HE	41	
Tel	low ?	- 1			•	HT			5	
0.	sky wine					HTT MY	1111 1111	HTI:	25	
6	1000	d V	,			XII II	12-7 11- 1	309	7	
5	1 - 10140	John Wing			-	1			1	
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	mar D	<u> </u>								
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Andr	cw Fisher	. Phillip	Parpa,	a Willey	Bharry	ul the C	16B 92g	Fheld the		
h., 1	ter fly.	1	1007				7			
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		Lashand
		logia
		Phosphia
		Carnethus
		Evedion
		Manzanita
		Callinsia
		Parstimon
		Nemach, lia
		<b>f</b>
		Plazio bethyvs Cryptanthe
		with law Land
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		ALL ALL ALL ALL ALL ALL ALL ALL ALL ALL
<u></u>	BER OF QCB DET	TECTED: INDIVIDUAL

Page <u>2</u> of <u>2</u>

			gan Add'l				Date:	4.27.	2010
Project:	Campo	Wind Energy	/ Project	Map #: _	9-J#		_ Survey S	kn:	
	13					ocol Survey #	_ 4	of	<u>5</u> .
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	0920	670	0-4	1%	clea	patchy	overcast	drizzle	shower
	1200	78	9-8	10.19	Clea	patchy	overcast	drizzle	shower
	1515	78	26	20%	clear		overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	000	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
END	alta (alzala)	Lean asile	hilliana	( and a state of	clear		overcast	drizzle	shower
Habitat On	-site (circle)	open soils,	hilltops ridge	s rock outer	ops soil cr	usts, clay soil	s, old roads	, various ne	ectar sources
		Butterfly	Species		NSD: 1011		Tally		Total
GAB	B'S CI	teckens	SPOT (If	emale \$2	males)	1) 1		15	3
Savo	as or	angetic	)			See	Rield		2
Behr	3 Me	a mark				N	Hebook	= For	155
	ly Mar		11/70	1.5		7	allies		8
Pale	Swal	low fail	-				4110		9
	nted La					(all land	(rd)		14
	na Az					photo	.5.913		1
130	nerpal	Duskyn	กันย์			1		7.898039	2
Dag	kuwih	g vukno	WKS						16
Aria	non B	v-e				****			14
	phur s								11
Sou	ing Wi	lite							1
Gra	y Mar	ble				photo	0		1
		skywin	î	***************************************		1			1
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		7.27.12					10-1		
		75			1				
	7.7								
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- 2000			-	7				***********	
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	- 1,000		100	-					-
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST
	Nectar Plants	Emmenathe produlitora
_		Anisocoma acaulis
	1/000	Phacelia pumji
		Lotus scopanis brenialatis
	48.0	Cennothus leucodermis & grays; peoplexans
		Salvia columbaral
		Lupinus conannus & bi coke
•	¥1	Carlantous simulans & heterophylls
		Streptantous campestis
		Cryptantha spp.
1.5500		Gitia capitalm
		Lots augophyllus var. arapphyllus
		Layin glandulosa
1		Phacelia distans ?
MMDSOI		Delphinium panshii subglobosum
MMDS02		11 20091000
MMSCOI		Streptantius campestis
MMSC02		h
MMSC03		41
MMSC04		н
MMSC05		и
	100	
	100	(10)

TOTAL NUMBER OF QCB DETECTED: ____ INDIVIDUALS

# Quino Checkerspot Butterfly Protocol Survey

Recorder	Davos	k i Eaniki	<u>حح</u> Add'l		ata Sheet		Deter		
			y Project						
TIME (	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	0900	650	i	Ø	Clear	patchy	overcast	drizzle	shower
	1000	730	2	6	Clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
END	1100	730	4	Ø	Clear	patchy	overcast	drizzle	shower
NAMES OF STREET			Species	Jook Outor	7p3,3011 Grusi	o, clay son	Tally	various iu	
A.	المقر هد:		Сроспос			30 3000	Tally		Total
	SAMA							W 1877 34	4
								-	3
٧.	Cardui								1
Gry	mais br	izo							1
Guc	here hyp	ritir lotta							2
C.	Augusti					VI			5
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		-							
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
15-L		
		Cryptontus Goldifields
		Cernotteus
**		Ansindia
		Amsindkia Collensia Baby blue apps
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TOTAL NOM	BER OF QCB DET	ECTED:   INDIVIDUALS

Recorder:	awaG	K. FAUIKA	Add'l	Person:	CARL		Date:	27 APR	2010
Project: _	Campo	Wind Energy	/ Project	Map #: _	16	1	Survey S	m: CAM	PO L
GPS Unit	#5				QCB Proto	col Survey #	4	of	5 .
TIME (	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	iloo	730	2	ø	Clear	patchy	overcast	drizzle	shower
	1200	77	2_	ø.	clear	) patchy	overcast	drizzle	shower
	1300	77	8	10%	clear	patchy	overcast	drizzle	shower
	1400	750	10	50%	clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
177					clear	patchy	overcast	drizzle	shower
END	1500	7-3	11	Ø	clear	patchy	overcast	drizzle	shower
			hilltops, ridges						
		Butterfly	Species				Tally		Total
Ago	damia vii	anot.							25+
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
16		Collensia
-		Cryptonisha
		Blue docks
· •		BAby Blue eyes
		Gryptonoma  Blue docks  Baby Blue eyes  Wace flower  goldfields
		goldfields
		Cernothus
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	BER OF QCB DET	TECTED: Ø INDIVIDUALS

Recorder:	Mike	COUFFER	Add'l	Person:	DALE POU	NELL	Date:	30 A	21L,2010
Project: Campo Wind Energy Project Map #: TILE 24 Survey Sxn: CAMPO - R								190-RJ	
GPS Unit :	GARM	El hi	·	:	QCB Prote	ocol Survey#	<u> </u>	of	5 .
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	1300	62V	7-74meH		clea	r patchy	overcast	drizzle	shower
	1400	01	X->7 MOH	50%	clea		overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
END	-: (-:1-)		Vallian - Aminima	Sanak ayıla	clea		overcast	drizzle	shower
Habitat On	-site (circle)	copen soils	hilltops, ridges	2 rock outc	rops)son cr	usts, clay som	s, old toads,	various ne	cial sources
		Butterfl	y Species				Tally		Total
(2000	CLER	20925	•			IN CIEIC	NOTEB	mr	1
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MAP/GPS LABEL	POINT/POLYGON TYPE COMMENTS FOR ALL MAPPED POLYGOS AND GPS POI SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE					
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SPS Unit :	,	TOJCOL		QCB Protoco	ol Survey#		of	5
TIME (24-hour)	Temp (F°):	Wind	% CC			Sky	- 14	
START 1300	63	(avg/max)	% CC	clear	patchy	overcast	drizzle	shower
JAKI 1405	610		50	v clear	patchy	overcast	drizzle	shower
15 50	820	4/7	30	clear	(patchy)	overcast	drizzle	shower
12 30	33	3/1	73	clear	patchy	overcast	drizzle	shower
		OT G		clear	patchy	overcast	drizzle	shower
		-		clear	patchy	overcast	drizzle	shower
FND				-			7337 31 1	
labitat On-site (circle	): open coile bi	Mone ridade	) root ontor	clear	patchy	overcast	drizzle	shower
labitat Off-Site (Circle	). open sons, an	inops, Hages	S, POCK OBICIO	ps, soli cius	is, clay solis	s, ola-loads	various ne	Ctal Source
	Butterfly S	Species	200-000-00-00-00-00-00-00-00-00-00-00-00			Tally		Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		Cryptontha
		Play to bethy s
		City Comas (H- 1/17)
		Collinsia (See Mike Conters NoTes)
		Cacusthuc
		Layra
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·	200 IN Algeling	an Map of Mestern area)
	557004	~ 360 9668 6 360008
	Lusperted some	ridge southinto Mat 27
	(See	Mike Coutters notes)
	(Mik	e noted Collinsia - absenced
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DRIPOI	Ranclude Palyson	Open area
011101	Have 1000 Lathlen	Then area
00111 -1	0-17	< 0 . 11 . 1 . 0
BPHrol	POINT	Son Digo Horned Lizard
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Page 2 of 2

Recorder:	DAUTO	K. Faulk	KER Add'l	Person:	birdouse		Date:	30APRIL	2010
				Survey Sxn: Campo-K					
GPS Unit	: <u> </u>				QCB Proto	ocol Survey #	4	of	<u> </u>
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	1100	630	<u>~</u>	30	clear	patchy	overcast	drizzle	shower
	1200	65°	j ·	40	clear	patchy	overcast	drizzle	shower
	1300	67	5	50	clear	patchy	<b>Overcas</b>	drizzle	shower
	·	-			clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
END	1400	62	98	50	clear	patchy	overcast)	(drizzle)	shower
Habitat Or	n-site (circle)	): open soils (	hilltops,∢idge	ock outci	ops, soil cri	usts, clay soil	s, old roads	various (16	ctar sources
		Butterfly	Species				Tally		Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
#14	Cango-K	Blue dicks
		Crystantha
		gordfields.
		boby blue eyes
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		Collensie - only a few Scathead
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TOTAL NUM	BER OF QCB DE	TECTED: ØINDIVIDUALS

Recorder: Bonnie Nandfald Ferson: E	Fix Bergingen Date: 4/3	110
Project Campo Wind Energy Project Map #:	1, 5 Survey Sxn: A	Cam
_	QCB Protocol Survey # of	5 .
TIME (24-hour) Temp (F°): (avg/max) % CC	Sky	
START 11:30 64,7 3,7/7.0 60	clear patchy) overcast drizzle	shower
121/5 57.0 49/88 30	clear patchy overcast drizzle	shower
TART 10.45 (N. 4 3719.7 30	clear patchy overcast drizzle	shower
7350 67.6 5.117.5 240	clear patchy overcast drizzle	shower
, 50	clear patchy overcast drizzle	shower
	clear patchy overcast drizzle	shower
END 450 57.7 502/85 40	clear patchy overcast drizzle	shower
Habitat On-site (circle): open soils, hilltops/ridges, rock outcro	ops, soil crusts, clay soils, old roads, various ne	ctar sources
Butterfly Species	Tally	Total
Painted Lady		)
Brack, Madda li M. to	*/	2
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
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Recorder:_	Dale	Pawell	Add'l	Person:	Nike C	, 014 N	1221	Date:	5/1/	10
Project:	Campo	Wind Energy	y Project							15
GPS Unit:		6		<u> </u>	QCB Pro	tocol s	Survey #	4	of	5
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% çc				Sky		
START	1445	(70	7/9	-8	Cle	ar)	patchy	overcast	drizzie	shower
	605	150	6/7	0	(clea		patchy	overcast	drizzle	shower
	1= 2-	-	<del>-</del> ; ,		cle	ar	patchy	overcast	drizzle	shower
					clea	ar	patchy	overcast	drizzle	shower
					clea	ar	patchy	overcast	drizzle	shower
					ciea	ar	patchy	overcast	drizzie	shower
END					clea	3r	patchy	overcast	drizzle	shower
Habitat On-	-site (circle):	open soils,	hilltops, ridges	s, røck outer	ops, soil c	rusts,	clay soils	s, old foads	various ne	ctar sources
				<u></u>		7	·			
	<u> </u>	Butterfly	Species					Tally	·	Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIS
		Lasthenia
		Physolia
		Crystentha
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Page 2 of 2

Recorder:	Dale	Powell	Add'l	Person:	Mike Co	DULLEN	Date	<u> 5/1</u>	110
			y Project			\		37	_
GPS Unit :		6			QCB Proto	col Survey	# 4	of	5 .
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	62	(70	4.16	0	clear	patchy		drizzle	shower
	6	650	5/7	0	ciear				shower
	1330	660	6/9		Cear		overcast	drizzie	shower
	1425	670	6/8	0	clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
END	" (::==1=)				clear			drizzle	shower
Habitat On-	-site (circle):	: open soils	hilltops, ridges	s, FOCK outc	rops sorrcru	sts, clay so	oils, old road	s, vanous де	ectar sources
		Butterfly	Species				Tally		Total
500	Orac	tip					144 140		25
		Blue				. 4	NAHAMAMA	•	5
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		Lasthania
		Phycolia 2types
		Leyid
		Monzanta
		Cryptantha
		Plano bathyrs
		Fradium
		Arabis
		Dichlostemmia
		Minialos
		Lotus
	1,000	Luping
		Amsinckia
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01 00 01	1014	Black-Tailed Jack Rubbit
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	ER OF QCB DETE	CTED: O INDIVIDUALS

Page 2 of 2

## **Quino Checkerspot Butterfly Protocol Survey**

Field Data Sheet									
Recorder: MIKE COUFFER Add'l Person: ANDREW FLHER Date: 1 MAY, 2010								, 2010	
	Project: Manzanita Wind Energy Project Map #: TILE 24 Survey Sxn: CAMPO R								
GPS Unit:	GAR	B Mim		<u> </u>	QCB Prote	ocol Survey	##	of	5 .
T384E /2	24 hours	Tamp (E9).	Wind	9/ 00			Clar	-	
START	() 930	Temp (F°):	(avg/max) ダーラ ろ mPH	CLEAR	clea	patchy	Sky overcast	drizzle	shower
	1000	64	2-75	CLEAR	Clea		overcast	drizzle	shower
	1100	67	8-74	5%	Clear	~	overcast	drizzle	shower
	1200	68	0->3	5%	clear	patchy	overcast	drizzle	shower
	1300	72	Ø = 5	5%	Clea	patchy.	overcast	drizzle	shower
	1400	73	Ø~5	CLEAR	cleai	patchy	overcast	drizzle	shower
END	1500	68	2->5	CLEAR	clear		overcast	drizz!e	shower
Habitat On	-site (circle) / OO H	: open soils 25, 6 දි " F	filltops (fidges , と->ちかれ,	STOCK outcre CLEAR_	ops) soil cr	usts, clay s	oils, old roads(	various nec	tar sources
		Butterfl	y Species				Tally		Total
Acmo	<u>on Blu</u>	E				INFI	70		
CABB	'S CHE	CHERSPI	0			\ <u>\</u>			F 6
	·	TALMAR				11			6
	102N BU			n An		11			9
FONE	REAL DUS	Kywino				u			14
		CKERUPOT				11			28
		SWALLOU				l (			1
	_		-BUTTER	2F41)		N.			21
						4 - 4			
	***************************************								
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						***************************************			
							<u> </u>		Att. 1411

MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
MCQBIZU	Point	(NAO 83) 115 0557061, 360108 (3180 FT EV)
AFQBOI	POINT	FIRST OBSERVED BY ANDREW FISHER (NAD 83) 115
		0557076, 3610089 (3192 FT ELEV.)
AFTUVU NESTO	POINT	NEED TO BE CHECKED BY RAPTOR BIOLOGIST
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NUMBERED C	DORDINIATES REPRES	ENT COLUNSIA LOCATIONS ALDNG ROUTE.
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COURSES TH	ic Quino WAS A F	RESHER QUINO THAN THE INITIAL QUIND OF THE DAYS.
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		TEOTED INDIVIDUAL O
TOTAL NUM	BER OF QCB DE	TECTED: 7 INDIVIDUALS

Page  $\frac{7}{2}$  of  $\frac{7}{2}$ 

TIME (24-hour)         Temp (F°):         Wind (avg/max)         % CC         Sky           START         0930         64         0-3         0         clear         patchy         overcast         drizzle           1300         65         5-13         5         clear         patchy         overcast         drizzle           1400         72         2-8         1         clear         patchy         overcast         drizzle           1520         69         0-10         1         clear         patchy         overcast         drizzle	
GPS Unit: #5         QCB Protocol Survey # 4 of	
TIME (24-hour)         Temp (F°):         Wind (avg/max)         % CC         Sky           START         0930         64         0-3         0         clear         patchy         overcast         drizzle           1300         65         5-13         5         clear         patchy         overcast         drizzle           1400         72         2-8         1         clear         patchy         overcast         drizzle           1520         69         0-10         1         clear         patchy         overcast         drizzle	5 .
TIME (24-hour)         Temp (F°):         (avg/max)         % CC         Sky           START         0930         64         0-3         0         clear         patchy         overcast         drizzle           1300         64         6-10         10         clear         patchy         overcast         drizzle           1300         65         5-13         5         clear         patchy         overcast         drizzle           1450         72         2-8         1         clear         patchy         overcast         drizzle           1520         69         0-10         1         clear         patchy         overcast         drizzle	
1130 64 6-10 10	
1300   65   5-13   5   clear (patchy) overcast drizzle   1400   72   2-8     clear (patchy) overcast drizzle   1520   69   0-10     clear (patchy) overcast drizzle	shower
1400   72   2-8   Clear patchy overcast drizzle   1520   69   0-10   Clear patchy overcast drizzle	shower
1520 69 0-10 ) clear patchy overcast drizzle	shower
1520 69 0-10 ) clear patchy overcast drizzle	shower
	shower
drizzie	shower
END 1550 67 0-10 3 (clear) patchy overcast drizzle	shower
Habitat On-site (circle): open soils, hilltops, ridges, rock outcrops, soil crusts, clay soils, old roads, various r	ectar sources
Butterfly Species Tally	Total
Acmon Blue (wook)	8
Perplexing Hairstreak	7
Behr's Metalmark	23
Painted Lady	9
west coast Lady	2
Sara's Oranget's	5
Furercal Dusky wing	5
Pearly Marble	2
Pale Swallowtail	9
Silvery Rive	3
Sleepy dusky wire	2
Gabbis checkers pot	

MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
BLSCOI	Pare plant point	
BLCHOI	Host plant point	
BLCH02	1\	$\sim 100$ s individuals
		Nectar sources: Mim v/us avantances, poporn f
		eradium, Lotus hamatus, cA poppy
		cheanactis glabruscula, phacelia parryi dis
		Desert Landelian, Amsintia Densteman parish
		Ceanoths, Gilia capitation Circium
		occidentalis cammatama, yucca whip,
		Emmerenthe perelulaflora, Lotos Scoperio
		Erophyllum hallacei Antirhinum nuthdia
		es senecio californica
		Cath
		Scia
		SOTO
		R'csA
		BHGR
		La2b
		wen
		WIZM
		CaQu
		Bush
		COP4
		NOFL
		Oati
		rego
		Granite night Grand (Xantisia) X2
		Side Wotch Lizard
		W. Fener Lizard
		Copanite Spiny Lizard
	ER OF QCB DETE	A Kingsnake Ringreck snake Gopher snake

Recorder: Margie Mullig9 Add'l Person: Date: 5/18 2010									
Project: Campo Wind Energy Project Map #: Survey Sxn:									
GPS Unit : QCB Protocol Survey # 4 of 5									5 .
TIME (2	!4-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	0900	60°	2-6	0%	clear	patchy	overcast	drizzle	shower
	1200	66°	4-10	40 %	clear	patchy	overcast	drizzle	shower
	1300	67°	8-12	25%	clear	patchy	overcast	drizzle	shower
	, , .	-		1	clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
			,		clear	patchy	overcast	drizzle	shower
END					clear	patchy	overcast	drizzle	shower
Habitat On-site (circle): open soils, hilltops, ridges, rock outcrops, soil crusts, clay soils, old roads, various nectar sources									
			Species		,		Tally		Total
Behr	's Mala	nmark	·			See	noteboo	/	19
	ion Blu	*				-	į		3
Sar	a's or	ange by	>						1
Silv	very Bl	J& 1							1
FUN	eral f	Duskwil	19						2
Pero	plexin	a Hair	steak				1		2
Pear	- ly Ma	g Haire				1			
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
Nectar Sour	æ <u>*</u>	Ceanothus (escodermis & cunea NS
		Lastnenia gracilis
		Layin glandulosa
		Escholtzia californica
	-	Malacotnix californica
		Trichostemma lanata
-		Enophyllum wallcei
		Vropappus lindleyi
		Phacelia distans
		Lupin & concinnus & L bi color
		Leptosiphon lemmoni
-		Aniscoma acquie
MMDSOI	Sensitie Dant 2+	Dephinism parishii subglobosum 10 plan
MMLSOI	Sensite phat pt	Latrurus solendens I am shrub
MMCHOI	Host plant pt	Collinsia heterophylla ~10,0lants
MMCH02	16	2 15 plants
MMCHO3	[1	2 10 plants
MMGVOI	Bluenesis Sensitue	Geraen Viscida Oplants
,	plant pt	
MMEPOI		Houses
MMEPOZ		This is a full grassland now w/ 20t dogs
	BER OF QCB DET	ECTED: INDIVIDUALS

Recorder	Marg	ic Mull	1994 Add'I	Person:			Date:	5/1	12010
Project: _	Campo	Wind Energy	y Project	Map #:	5		Survey Sx	:	
GPS Unit	:	l	<b>****</b>	4 1.	QCB Protoc	ol Survey#	4	of	5
TIME (	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	1300	67°F	8-12	25%	clear	patchy	overcast	drizzle	shower
	1530	67°F	6-8	25%	clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
				172	clear	patchy	overcast	drizzle	shower
7.00	-				clear	patchy	overcast	drizzle	shower
END					clear	patchy	overcast	drizzle	shower
labitat Or	-site (circle)	open soils	hilltops ridge:	s, rock outc	rops, soil crus			various ne	ectar source
		Butterfly	Species				Tally		Total
A	cmon 1	31Ue							6
		etalmarl	/						9
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1	aintro	1 lady							2
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
Nectur Sour	Ce:	Layia glandulosa
		Lastnenia gracilis
		Collinsia heterophylla
		Anisocoma acarle
		Lupinus bicolor à L. Concinaus
		Lotus strigosus
		Ceanothus leucadermis
		Platustemon californicus
		Erysium capitatum apitatum
		Gilla capitation capitation
		Amsinkia men Ziesij
		Ceanothus lev codermis
		Phacelia distans
		Leptusiphon lemmonij
		Aniso coma acaula
MMDS02	sensitive plant pt	Delphinium panishii subglobosum
MMADOI	, , , ,	Astragalis douglasii perstrictus
MMADO2		r. J
NM ADO3		1,
MM ADOY	ا ك	(τ
	Maria .	
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Recorder: Dek Paus ( Add'l Person	: Kenny 5	Toker	Date:	5/2/1	<u> </u>
Project: Campo Wind Energy Project Map	,			_	. ^
GPS Unit :	QCB Proto	ocol Survey#	4	of	<u>5</u> .
TIME (24-hour) Temp (F°): (avg/max) % C		-	Sky		
START 12:30 7 4/6 0		-170	overcast	drizzle	shower
1000 10 5/4	clear		overcast	drizzle	shower
1615 72 4/7	clear		overcast	drizzle	shower
	clear		overcast	drizzle	shower
	clear	· · · · · · · · · · · · · · · · · · ·	overcast	drizzle	shower
	clear		overcast	drizzle	shower
Hobitat On site (sirele): mon sele hilltone ridges rock	clear		overcast	drizzle	shower
Habitat On-site (circle): open soils, hilltops, ridges, rock of	oticious, son cit	usts, clay sons	, Qui Ivaus, v	/glions liec	lai sources
Butterfly Species			Tally		Total
SouthernBlue		100 300 11:	· · · · · · · · · · · · · · · · · · ·		13
^		M ma II			3
Marble?		<u>i((</u>			5
Dehve Metalmort		HT III			<u> </u>
Alve?		UT			5
Pale Swallout -1					:
		WT 11			オ
Soras Orangetip		11			3
West-cost lady		1	·	<u> </u>	· /
White?		HH 11			7
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		Loyia
		Lasthand
		Caenar hus
		Exedian
		Manzanita
		Collinsia
		Dichlostruma
		Lupinua
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		TECTED: INDIVIDUALS

Recorder:_	MIKE (	Couffer	<u>د</u> Add'l	Person:	Non	<u>E</u>	Date:	2 may	1.2010
Project: Campo Wind Energy Project Map #: \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\					TILE	F	Survey S	xn: <u>CAM</u>	PON
GPS Unit: GARMIN 1 QCB Pro									
TIME (2	24-hour)	Temp (F°):		% CC			Sky		
START	1020	ලට	Ø->3 MOH	CLEAR	clear	patchy	overcast	drizzle	shower
	1100	66	9->3 MPH	CLEAR	clear	patchy	overcast	drizzle	shower
	1200	64	Ø->7m04	CLEAR	clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
				ļ,	clear	patchy	overcast	drizzle	shower
END			***************************************		clear			drizzle	shower
Habitat On-site (circle): open soils, hilltops ridges rock outcrops, soil crusts, clay soils, old roads various nectar sources									ctar sources
			ly Species				Tally		Total
Acmon	BLUE_	***				IN FIE	LO NOTEBOO	で	8
PERPLEX	ING HAIG	2STREAK					1.1		8
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)					
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TOTAL NUM	BER OF QCB DET	TECTED: INDIVIDUALS					

Recorder:	MIKE	COUFFE	Add'l	Person:	Non	<u> </u>	Date:	2 MA	1,2010
			gy Project						
PS Unit	GAn	min 1			QCB Protoc	ol Survey #	4	of	5
TIME (	24-hour)	Temp (F°):	Wind (avg/max)	% cc	I vanesses	Λ	Sky	-	150
START	1200	64	MOM FC-D		clear	patchy	overcast	drizzle	shower
- iruiti	1300	73	Ø->3	CLEAR	clear	patchy	overcast	drizzle	shower
	1400	76	8-72	CLEAR	clear	patchy	overcast	drizzle	shower
	1500	74	0-06	CLEAR	clear	patchy	overcast	drizzle	shower
	1600	7(	2->8	CLEAR	clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
END			hilltops idge		clear	patchy	overcast	drizzle	shower
000			ly Species			Tally IN FIELD NOTEBOOK		Tota	
STAIR	O LADY	>				IN FIELD NOTEBOOK			
	METAL			- (3)		1 1			90
	S CHECK				-	11			ス
Was project to the	ORANGET	3133				11			5
	ERN BLU								2
_	G WHITZEAL DUS	CONT. NEW				41			9
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	TIGER S		AiL			(1		3	
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	E'S CHEC		-	Co. S. E. G. Koli (A) I Pe			110		Ī
WEST	COAST	LAOU						3	
RED ADMIRALS						S	11		2
			HENRY ST.			-			
0.000			<del>V 18301-1</del>						
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
McwwoY	Point	and the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second o
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TOTAL NUMI	BER OF QCB DET	rected: individuals

Page <u>2</u> of <u>2</u>

Recorder: F. Dattmen Add'l Person: B. Willey Date: S	13/10
Project: Campo Wind Energy Project Map #: Tile 5 Survey Sxn:	
GPS Unit: SM /3 QCB Protocol Survey # 4	
TIME (24-hour) Temp (F°): (avg/max) % CC Sky	
	zzle shower
clear patchy overcast dri	zzle shower
	zzle shower
	zzle shower zzle shower
	zzle shower
	zzle shower
Habitat On-site (circle) open soils hilltops ridges, rock outcrops, soil crusts, clay soils old roads, varie	ous nectar sources
Butterfly Species Tally	Total
Apodenia mormo	11N 46
Callopheys Durysland	2
I CARCIA ALMON	3
Vanesas Cardin MIIII	9
Glencopsyche hygdamins	2
Ponta probdice (check white) W	.5
Ernois fumeralis	1
Colins har kirdii	
	,
Anthockaris Span	

MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
FOCOLTEOI	3620122	PODS SUNDOAK. DG SOIL BUELLINGS
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11 05	3560440	Pop 200+ Norma Pacin, Bank diamege on
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		Collinsia - Manged/6K.
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		Chamine Chapanal -
		Mangenta, Mexicant Righten
		surveyed from I-3 North to just
		south of la Posma Carino- al Exect
		o crestwood Rd.
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TOTAL NUM	BER OF QCB DET	TECTED: INDIVIDUALS

Recorder	Andre	WPignia	<u>.∂</u> Add'l	Person:		· · · · · · · · · · · · · · · · · · ·	Date:	5/3/1	0
		ل					Survey S		<del> </del>
GPS Unit	:7				QCB Prot	ocol Surve	y# <u>-</u>	of	5
TIME (	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	1300	74	0-2	0	clea	patch	y overcast	drizzle	shower
	<u> </u>			<u> </u>	clea			drizzle	shower
	11				clea			drizzle	shower
	1400	16	0-2	0	clea			drizzle	shower
	<del> </del>			ļ	clea		11.5	drizzle	shower
	<del></del>	27		-	clea	······		drizzle	shower .
END	1530		billtone sides	o rook outo	clea			drizzle	shower
Habitat Of	1-site (circle)	). open sons,	minops, nage	S, TOCK OUIC	iops, son ci	usis, clay	soils, old roads	, vanous ii	ectal sources
		Butterfl	y Species				Tally		Total
Be	hra Me	etalima	1			WATH	WIM HUAL	HUHIS	46
	1 1	Lady				UHI	,,,, · <b>,</b> ,,, ·	(4))	6
						11			2
30	Markl	acres 11	P	· .		1			2
72	VPLEXI	ng Hairs	treak			(11)			4
C	Can Mann	White				1			
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)					
APCC08	Point	30+ Collinsia cancolor					
APCCOG	Point	10+ 11 11					
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Page **1** of **1** 

Recorder: A	miren	Pignie	Add'l	Person:		· · · · · · · · · · · · · · · · · · ·	Date:	5/3/1	<u> </u>
			y Project		i 1	· · · · · · · · · · · · · · · · · · ·	Survey S	cn: <u>6</u>	
GPS Unit :			· · · · · · · · · · · · · · · · · · ·		QCB Protoc	ol Survey#	4	of	5 .
TIME (24-h	our)	Temp (F°):	Wind (avg/max)	% CC			Sky		· · · · · · · · · · · · · · · · · · ·
START 👌	115	60	2-6	0	clear	patchy	overcast	drizzle	shower
	15	66	2-6		clear	. patchy	overcast	drizzle	shower
	15	69	2-6	0	clear	patchy	overcast	drizzle	shower
12	712	59	2-4	0	clear	patchy	overcast	drizzle	shower
T T	313				clear	patchy	overcast	drizzle	shower
	915				clear	patchy	overcast	drizzle	shower
			0-4	0	ear	patchy	overcast	drīzzle	shower
Habitat On-sit	te (circle):	open soils,	hilltops, ridge	s, rock outc	rops, soil crus	ts, clay soil	s, old roads	various ne	ctar sources
			/ Species				Tally		Total
Behrs	s Met	a lmar	14		<u> </u>				26
Fainte	cal La	d .				hm'			1.1
DUSK	V 1 N E 10	a Ski	DOEV			1			2
Perol	lexino	hairs	pper treak	•		<u>/                                      </u>			2
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST
DITAPCCOI	Point	1 Collinsia concolor
APCCCROZ	Point	2 collinsia concolor + 5+ cord xlanthus rigidu
APCLO3	Point	2 11
APBJO4	Point	I Black tailed jackvatbit
MPCLOS	Point	15+ collinsia concolor
PUCO6	Point	20+ 4
iPCC07	70.57	act collinsia concelor
	- MARINEW TOTAL TOTAL	
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Recorder: DAUID FLII	ETIUC PAdd'I F	Person:	JOHN	BOSTI	レス Date:	5-3	- 10
Project: Campo Wind Ene	rgy Project	_ Map#:		19	_ Survey Sx	n: <u> </u>	
GPS Unit : 12			_ QCB Prot	ocol Survey #	#	of	5
TIME (24-hour) Temp (F°)		% CC		-	Sky		
START 0930 64	5-9	_(')_	clea	patchy	overcast	drizzle	shower
			clea	r patchy	overcast	drizzle	shower
			clea	r patchy	overcast	drizzle	shower
			clea	r patchy	overcast	drizzle	shower
			clea		overcast	drizzle	shower
	man, sum		clea		overcast	drizzle	shower
	3-5	$\bigcirc$	clea		overcast	drizzle	shower
Habitat On-site (circle): open soil	ls, hilltops, ridges	, rock outc	rops, soil cr	usts, clay soi	ls, old roads,	various ne	ctar sources
Butter	fly Species				Tally		Total
Behrs meta	ul mark			MXX	I IX NO		60
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
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17/1901	POINT	7 Lathyrus splent is growing in Q-ac
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	BER OF QCB DE	TECTED: () INDIVIDUALS

				Field D	utterfly Protoc ata Sheet				
Recorder:	David	K. FAUIK	Add'l معد	Person:	Lewis C.		Date: _	3 May	2010
Project: _	Campo	Wind Energ	y Project	Map #: _	11		Survey Sx	n: <u> </u>	PC H
GPS Unit	#5			<u> </u>	QCB Protocol	Survey#	2-	of	5 .
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	0900	67°	5	Ø	(clear)	patchy	overcast	drizzle	shower
	1000	710	4	Ø	Clear	patchy	overcast	drizzle	shower
	1100	7-5°	2	ø	(Clear)	patchy	overcast	drizzie	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzie	shower
					clear	patchy	overcast	drizzle	shower
END			3	Ø	clear	patchy	overcast	drizzle	shower
naultat Off	-site (circle)	Topen solis	nilitopsznages	COCK OUTCE	ops, soil crusts	, clay soils	old roads>	various∕ne	ctarsources
		Butterfly	Species				Tally		Total
الموت				-			- Turity		lotar
									25+
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A. SA	^A								3
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
#1(,H	Marked 05 #1.	SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)  118 0560117 - 100's of (Long)  Collansia. UTM 3616770
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TOTAL NILIM	BER OF OCR DET	TECTED: Ø INDIVIDUALS

				Field D	ata Sheet	•			
Recorder:	DAVID	K. FAUI	Kiley Add'l	Person:]	L. Conneley		Date: _	3 Mm	12010
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GPS Unit	* * *	5			QCB Protocol	Survey#	띡	of	5
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	1200	76	3	Ø	clear	patchy	overcast	drizzle	shower
	1300	480	i	Ø	(léar)	patchy	overcast	drizzie	shower
	1400	78	2	Ø	clear	patchy	overcast	drizzle	shower
	1500	83°	ì	Ø	cleary	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
END	1600	79		Ø	(clear)	patchy	overcast	drizzle	shower
Habitat On	-site (circle)	: open soils	nilltops;(ridges	Tock outc	ops soil crusts	, clay soils	old roads, v	arious ne	ctarsources
		Butterfly	Species				Tally		Total
P. Acm	ion								257
A. vivo	<del>juti</del>								25+
P. pro	todice_						_		3

Butterfly Species	Tally	Total
P. Acmen		257
A. virguti		257
P. protodice		3
P. eurymedom		
A. virguti P. protodice P. eurymadon A. SANA		,,,
Granis so		12
Coises hard di		
Coiras harfodia V. Conduis		5
V. anna se ila		1
		[ ]

MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAI SPECIES LIST (NECTAR SO	DURCES, GENERAL WIL	PS POINTS/ .DLIFE LIST)
i6	Markedas #3	RATE MUSTARd -	115 559957 GTM 3616131	acteimits.
	Marked as #4	Collensia		164
		Collensia Creptile galdfildi		
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TOTAL NUM	BER OF QCB DE	rected:	<u>ø</u> IND	VIDUALS

Recorder:_	MIHE	Couffe	EC Add'I	Person:	Non	<u>6</u>	Date: _	3 MAY	2010
			ıy Project						
GPS Unit :	GARI	MIN 3			_ QCB Proto	ocol Survey #		of	5
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC	3A.1		Sky		
START	0835	67	3->6 mpH		clear	patchy	overcast	drizzie	shower
	0900	70	3->8	CLEAR		<u> </u>	overcast	drizzle	shower
	1000	72	3->10	CLEAR	clear	patchy	overcast	drizzle	shower
	1100	74	4->8	CLEAR		patchy	overcast	drizzle	shower
	1200	77		CLEAR		<u> </u>	overcast	drizzle	shower
	1300	80		CLEAR			overcast	drizzle	shower
END Habitat On	1400		Ø-> 4 MPH				overcast		shower
Habitat On	-Site (Circle).	OS 80%	hilitops×ridges	PH. CLEA	rops) son cri	usts, clay som	s old roads	various nec	tar sources
	2 as as as a 1 -		y Species	(11) # - # -			Tally		Total
Acim	INN RI	UE	<u> </u>			TN FIF	LONOT	eennk:	18
	•	ALMARK					11	EBOUL	225
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
MCHL18 050310	Point	
Mc Garmin 06	POINT	FOUND GARMIN # 6 LOST BY OTHER BIOLOGIST APPROX.
		ONE MONTH AGO. UNIT TURNS ON AND IS IN GOOD GNOING
01 NUMBER	Paris Pagarent	COLLINSIA LOCATIONS ALONG TRACK ROUTE.
HIC MOMBERCED	TOTALS NEVIDESTAL	COLLINSIA LOCATIONS MUNG TEACH ROUTES.
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TOTAL NIIME	BER OF QCB DE	TECTED: INDIVIDUALS

Recorder:	Dale	Powe	Mod'l	Person:	(cin F	Ju yout	Date: _	5/3	1/10
Project:	Campo	Wind Energy	/ Project	Map #:		6	Survey Sx	n: <u>(                                   </u>	I og
GPS Unit		6			QCB Proto	ocol Survey#	<u> </u>	) of	5 .
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	8:30	65°	7/9	0	Clear	patchy	overcast	drizzle	shower
	9.50	670	7/10	_ O _	clea	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	· patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear		overcast	drizzle	shower
END	aita (ai-al-)		N. III.		clear	patchy	overcast	drizzle	shower
Habitat On	-site (circie):	open soils	nilitops, riages	s, rock outer	ops soll cri	usts, clay soils	, etd roads,	xarious ne	ctar sources
		Butterfly	Species			-	Tally		Total
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POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
	Custallia
	layia
	Lostheria
	Fradrum.
	Descuya Mico
	Salvin colombino
	Gypton tha
	tlag to hothyrs
	Ausine 120
	Dichlostomas
	Caputhus
	Chaenoctis
	Chaenoctis
	flassocium Melocethry
	Astropolus
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Point	Collusia
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	TECTED: (a) INDIVIDUAL
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Recorder:_	Dale	Powell	Add'l	Person:	evin		Date:	_ 5/3	110
Project:	Campo	Wind Energy	Project	Map#:_	10,1	5	_ Survey S	xn: <u>Cau</u>	apa I
	<u> </u>								
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% сс		,	Sky		
START	9:50	670	7/10	<u> </u>	clear	_	overcast	drizzle	shower
	111)	750	417		_cleár		overcast	drizzle	shower
	H JO	700	340	0	ctear	· · · · · · · · · · · · · · · · · · ·	overcast	drizzle	shower
	1600	810	160	0	< clear		overcast	drizzle	shower
	1640	790	<del> </del>		clear		overcast overcast	drizzle drizzle	shower shower
					clear		overcast	drizzle	shower
END Habitat On	-site (circle)	Onen soile	billtops, ridge	s reck outc					
i labitat Off	-Site (Girole)	. open done,	emitops, erago	p, con out	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, o.u., o.		The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s	
		Butterfly	Species				Tally		Total
Pale	Swall	outail				1Ht 1	IH IH	ity sky i	26
	non Blo					HT 11	1		3
D 1	. 7			2.1.2.2		411 1	HI HU HU	AT 1	16
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		metip.			101 7101	4+	H 44	417 V	22
Wh	12?	0 1	•				1(1	,	8
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		Lotos
		Camissonia
		Astragalus
		1.11.00
·		1 31
		Logithera
		Erodina
		Déservania
		Salva relin barris
	**	Amountie
		Lapino/
		Carnothes
		Publostinua
		C, Toutho
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TOTAL NUM	BER OF QCB DET	ΓECTED: INDIVIDUALS

				Field D	ata Sheet	•				
Recorder	BRIA	N Lots	TRO IF Add'I		BOE/Esc		Date:	5/4	110	-
Project: _	Campo	Wind Energ	y Project	Map #:	11, 12,16		Survey Sxn	:6	1	-
GP\$ Unit	: 7		-11-11-1	- 4	QCB Protoco	I Survey #	4	of	5	
TIME	24-hour)	Temp (F°):	Wind (avg/max)	% _{CC}			Sky			
START	0840	68	0-1	Ø	plear	patchy	overcast	drizzle	shower	
	1040	79	0-4	Ø	(ear)	patchy	overcast	drizzle	shower	
	1300	80	3-8	Ø	dear	patchy	overcast	drizzle	shower	
	1420	83	3-8	Ø	dear	patchy	overcast	drizzle	shower	
-	11515	79	4-8	B	dear dear	patchy	overcast	drizzle	shower	

Habitat On-site (circle): open soils, hilltops, ridges, rock outcrops, soil crusts, clay soils, old roads, various nectar sources

END

clear

clear

patchy

patchy

overcast

overcast

drizzle

drizzle

shower

shower

Butterfly Species	Tally	Total
Behr's Metalmerk		39
Common Sooty Wina		3
Sara Orangetin	* * *	5
Common Sooty Wing Sara Orangetip Paintel Lady		3
Acmon Blue		5
Spring Azure		2
Shatter Rlaco		3
Chalcedon checherspot		
comman white		1
Hartherdi Sulphar		3
Dearly marble		3
Devolexing hair streak	10 10 10 10 10 10 10 10 10 10 10 10 10 1	2
Serplexing hair streak  Made pale swallowtail		2
		4
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
BLHLOI	·	Juy Harned Lizard
BLCHOI		Chinese haves ~10 int.
BLLBOI		Linanthus bellus 100s ind.
BLCHOZ		chinse haves ~5 ind.
BLCHOZ		" Sind.
BLLBOZ		Linanthis bellus sooind.
BLHL02	-	Juv Herred Lizare
BLLB03		Linanthus bellow 500 ind
BLCHOH		chinese houses 100 ind.
BLC HOS		Chircle hauses 100 ind.
BLLB06		finanths bellow sooind
BUBOT		Linanthy bellus 500 incl
BLC406		Chinese houses Dinl
BLCH07		Chirite houses 100 ind
BLHL03		Adult horned Lizard
BUB08		Linuthus Hellus 300 incl
BLCH09		chinese houses 30 ind
BLCH10		chinese houses 50 ind
BLHL 04		Jur homed Grane
BLCHII		chinese haves 30 ind
13LCH12		11 Zoind
BLCHOB		chines hower 300 ind.
		Calt, CAQUOati Wiwa, ATFL, Eust, CORA
1		Soic LENDERCOD COHLL LOCA COM
		Coth, BHGR BEWR, Lego, WeBB
ectar Sources	. CH DODAN ELOW	IUM, Ceanothus, Commissouria Lastronia penstehun
hia Linauthus	ocllus mustavas (	entrum thisolia, spectabilis. Devert dande lon
hacelia distan	2 Parryii (	DOPEOUR Hower, Linanthus S.D. Lemmonii: Lapinus SAD.
onia glabate	i Minulus guitatu	5 Lotes homals, mimulus frementii,
nisdiconta acqu	lis, seneció calife	ornica, trichostemma, Gilia copitatum, Emophyllan, s
Clahium pamii	SSD SUNGBOOKS	Sour
OTAL NUMB	ER OF QCB DETI	ECTED: INDIVIDUALS

Recorder:	Powell	Add'l l	Person:	Returns	Noise	Date: _	5/4,	110
Project: Manza	Ha Wind Ene	rgy Project	Map	#:	7	Survey	Sxn:	npcD
GPS Unit :				QCB Proto	ocol Survey#_	U	of	5 .
TIME (24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START 850	680	2/3		clear		overcast	drizzle	shower
END 11 15	780	7/13		clear	₹ <u></u>	overcast overcast	drizzle drizzle	shower
START 155	250	2/12	0	Clear	patchy	overcast	drizzle	shower
ST" 735	780	E/A	<u> </u>	clear		overcast	drizzle	shower
1520	スク	9/13	0	clear		overcast	drizzle	shower
END 1545	760	8/11	D	elear	patchy	overcast	drizzle	shower
Habitat On-site (circle	): open soils, t	Alltops Hages	, fóck outc	rops) soil cri	usts, clay soils,	eld-roads(	various nec	tar-sources
	Butterfly	Species				Tally		Total
Balin MET	ig mork	المالا	بلا يهيد	tt titt	LIH WIND	1 / H	1 HH WIT	55
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)				
•		Erodium				
		la cticum				
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		E I				
		L VI Cameria				
		- trabis				
		Player hatyris				
		Cryptantha				
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		Macalia				
		Dicho stemms				
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<b>OTAL NUME</b>	BER OF QCB DET	ECTED: NDIVIDUAL				

Page 2 of 2

Recorder:	Dale	Rowell	Add'l	Person:	Non	<u> </u>	Date: _	5/	1/10
Project:	Manzar Manzar	Wind En	ergy Project	Мар і	<b>#</b> :	2	Survey	Sxn:	Campo D
GPS Unit :		6_			QCB Prote	ocol Survey#	4	of _	5 .
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% cc			Sky		
START	11120	780	8/12		dea	patchy	overcast	drizzle	shower
	11142	75°	_7/12	8	cléa		overcast	drizzle	shower
	17	_	- 1		clea	r patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drîzzle	shower
END		<u> </u>			clear		overcast	drizzle	shower
Habitat On	-site (circle)	open soils,	hilltops, ridge	s, rock outer	ops, soil cr	usts, clay soils	, otd róads,	various	nectar sources
		Butterfly	Species				Tally		Total
<u>D</u> 03K1	- <u>-                                  </u>			40.7710.1720H		11			7
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Pale	0 11	Brombyer		· · · · · · · · · · · · · · · · · · ·		1			1
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POIN SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE L	TS/ IST)
		Erodivin	
	·	Cryptartha	
		Plagio bothyvis	
		Caenothio	
		Doss ovenia.	
		Anadia	
		W. C. C. C. C. C. C. C. C. C. C. C. C. C.	
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TOTAL NUME	BER OF QCB DET	TECTED: O INDIVIDUA	ALS

Recorder: David K. Faulking Add'l Person: Daniel Date: 4  Project: Campo Wind Energy Project Map #: 11, 12 Survey Sxn: GPS Unit: #2 QCB Protocol Survey # 4(?)  TIME (24-hour) Temp (F°): Wind (avg/max) % CC Sky  START OGOO 70 Ø Ø Glear patchy overcast drize (100 74° 5 Ø Glear patchy overcast drize (100 74° 5 Ø Glear patchy overcast drize (100 74° 5 Ø Glear patchy overcast drize (100 74° 5 Ø Glear patchy overcast drize (100 74° 5 Ø Glear patchy overcast drize (100 74° 6 Ø Glear patchy overcast drize (100 74° 6 Ø Glear patchy overcast drize (100 74° 6 Ø Glear patchy overcast drize (100 74° 75° 75° 75° 75° 75° 75° 75° 75° 75° 75	
TIME (24-hour) Temp (F°): (avg/max) % CC Sky  START 0900 70 Ø Ø Clear patchy overcast driz	
TIME (24-hour)         Temp (F°):         (avg/max)         % CC         Sky           START         OGOO         70°         Ø         Glear)         patchy         overcast         driz           1000         74°         5         Ø         Glear)         patchy         overcast         driz	of5
1000 74° 5 Ø Clear patchy overcast driz	
	zle shower
(Gear) patchy overcast driz	zle shower
100 10	zle shower
(200 80 ⁵ 6-7 Ø Gear patchy overcast driz	zle shower
(3.co 83° 8 Ø Clear patchy overcast driz	zle shower
1400 80° 7 Ø Clear patchy overcast driz	zle shower
END 1500 200 3 grant driz	
Habitat On-site (circle): open soils hilltops ridges, rock outcrops, soil crusts, clay soils, old roads, vario	us <del>crectar</del> sources
Butterfly Species Tally	Total
P. Rupini	2
V. caldui	25+
1. ACMEN	2
Enymis properties C. Perplexa	
	25+
A- Virgulti Philosopa Catulla	5
Erypnis funcialis	4
A. SARA	2
SIN 158 315 11 200 2 2 200 2 200 2 2 200 2 2 200 2 2 200 2 2 200 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	

MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAB SOURCES, GENERAL WILDLIFE LIST)
126.	Mark # 2	Callerson ~ 50 dants
,		Collensia, ~ 50 plants. 119 0561218 UTM 3618090
		UTM 3618096
12 E	No Mark.	Horned-lizard: US 0561238
		hector: Cryptantha Gold fields Coanothus
		Gold fields
		Canothus

Recorder:_	DAVID	FLIE	TUERAdd'I	Person:	TOHU F	FKAL.	Date:	5/4/	0
Project:	Campo '	Wind Energ	y Project	_ Map #: _	19	; 	_ Survey S	xn: 🔼	
GPS Unit :	10				QCB Prot	ocol Survey #	± <u>      4                              </u>	of	5 .
TIME (24		Temp (F°):	Wind (avg/max)	% CC			Sky		
-START		58	0-2		clea	patchy	overcast	drizzle	shower
STANT	8150	66	Q2 -4	0	clea	patchy	overcast	drizzle	shower
			•		clea	ir patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
				4	clea	r patchy	overcast	drizzle	shower
		75			clea	r patchy	overcast	ő drizzle	shower
END	10:30	33	3-5	C)_	clea	r patchy	overcast	drizzle	shower
Habitat On-	site (circle)		hilltops, ridges	, røck outc	rops, soil cr	usts, clay soi	ls, old roads	various ne	ctar sources
			· ·						
		Butterfl	y Species				Tally		Total
Ac	man	blue				1 de.			4
B	Ohrs	mot	Morunk			0 "			4
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
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Recorder:	DHUR	FLIE	VEC Add'I	Person: 30	E CIMIC	Bastick	Date: _	5/4//	<u>'0</u>
Project:	Campo	Wind Energy	y Project	Map #: _	<i>.</i> 3	20	_ Survey Sx	n: <u> </u>	1 15/7/1115
	·	10				ocol Survey#			<u>5</u> .
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	11 00	77	0-3	()	clea	r ) patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
					clea	ır patchy	overcast	drizzle	shower
				*	clea	r patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
END	1630	33	7+10	$\bigcirc$	clea	patchy	overcast	drizzle	shower
Habitat On	-site (circle)	(open soils)	hilltops ridges	s, rock outc	rops, soil cr	usts, clay soil	s, old roads	various ned	tar sources
		Butterfly	/ Species				Tally		Total
1 B	2hrs	metas	linule			1000	DD -		200
	Derjo	heir.	I mule streute			0.7			33
	Sava	in son	cetion			W.T.			18
	Pount	iel 19	Van			XI:			12
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		Lust cel
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DFCHOI	point	Collinsia
		Lohes shi
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		Leminus conc
		Phalelin mira
		Lincen thus Commenic
DECHOZ	point	- 200 Collinsia
<u></u>		Crown puff
OF CHO3	75	
p, c. c.		Cul hetero
N = 1/1 /0	th:	
DEHLO		hovald lizard
		Chainachs (lup
		Plimulus (yellow)
		Emmen antho pend
	·	Linanthus Lin
DFUSO	point	1 Cautenthes Smuleuro
		Coveepsis caly
CH 3 ->C	412 mints	1 GPS ed representative Collinsia
	orlyga	/ocations - these should just
	1 13	be made into a polygon
		2 11100 1000 1000
TOTAL NUM	BER OF QCB DE	TECTED: INDIVIDUALS
		7
		Page $2$ of $2$

				Field D	ata Sheet				
Recorder:	MINE	LOUFFE	Add'l	Person:	NON	<u> </u>	Date:	4 ma	Y, 2010
Project:	Campo	Wind Energ	y Project	Map #: _	VILE ?	21	_ Survey Sx	m: <u><i>CAN</i>:</u>	190-N
GPS Unit :	_GAS	<u>ระทาง (</u>	9	2 \$ 12 %	QCB Prot	ocol Survey #	?4	of	5 .
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC		······································	Sky		
START	1100	78	3->5mPH	CLEAR	ctéa	patchy	overcast	drizzie	shower
	1200	76	7->14	CLEAR	clea	_	overcast	drizzle	shower
	1300	8/	0->6	CLEAR	clea	patchy	overcast	drizzle	shower
	1400	81	3-8	CLEAR	clea	patchy	overcast	drizzle	shower
	1500	81	0-35	CLEAR	clea	patchy	overcast	drizzle	shower
	1530	80	Ø->5	CLEAR	Clea	patchy	overcast	drizzie	shower
END					clea	r patchy	overcast	drizzle	shower
Habitat On	-site (circle)	open soils,	hilltops ridge	reck outcr	ops, soil cr	usts, clay soil	s old roads	various ne	ctar sources
			y Species				Tally		Total
SARA	+ ORAN	KETIP				IN FIE	LO NOTE	BOOK	15
HENI	NE'S	-HECKE	RESPOR				14		
PALE	YIGER	_ SWALL	OWTAIL			1)			5
FUNE	real (	Jusky wi	NG			1.1			1/
		BLUE				1)			3
_		TALMA				l s			7
CHECK	reneo l	NHITE				1¢			え
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
MCHL19 050410	Point	MEDIUM-SIZED HORNED LIZARD
NUMBERED	POINTS REPRES	ENT COLUNSIA LOCATIONS COLLECTED ALONG
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TOTAL NUME	BER OF QCB DET	TECTED: INDIVIDUALS

Page 🔊 of 💫

Recorder:	MINE	COUPFE	Add'l	Person:	Non	<u>E</u> _	Date:	4 mar	2010
Project: _	Recorder: MINE COUFFER Add'l Person: NONE Date: 4 MAY, 2010  Project: Campo Wind Energy Project Map #: TIE 16, 19 Survey Sxn: CAMPO M								
GPS Unit: GIARMIN 9 QCB Protocol Survey # 4 of 5									
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			61		
START	0840	70°	Ø->2	CIEAR	clea	patchy	Sky overcast	drizzle	chours.
	0900	69	0->2	CLEAR		-	overcast	drizzle	shower shower
	1000	73	0-3	CLEAR		×	overcast	drizzle	shower
	1015	73°F	Ø->2MPH	CLEAR	clea		overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
END					clea	r patchy	overcast	drizzle	shower
Habitat Un	-site (circle)	open soils	hilltops, ridges	s, rock outci	ops, soil cr	usts, clay soil	s, old roads,	various ne	ctar sources
		Butterfly	y Species				Tally		Total
BEHOS	METALM	182K				IN Cir	DNOTER	150/	95
Acmai	J BIVE	HEN				IN FIEL		2005	73
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SARA	ORANC	9172				*1			
CALIF	ORNÍA M	1ARBLE				11			
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
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	252 25 25 25	
TOTAL NUM	BER OF QCB DET	rected: individuals

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Recorder:	Natalie	Brock	Add'l l	⊃erson: <u>Û</u>	rede	Date: _	4 May	2010
Project:	Campo	Wind Energy	y Project	_ Map#:_	()	Survey Sxi	n: <u>Cava</u>	0 - C
GPS Unit :	Elavy	in 3			QCB Protocol Survey #	-	of	5 .
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC		Sky		
START	0900	104"	calm	6	clear patchy	overcast	drizzle	shower
	1005	68	2/5	<u> </u>	clear patchy	overcast	drizzle	shower
	1110	70"	6/11	<u> </u>	clear patchy	overcast	drizzle	shower
	1200	7 <b>5</b> °	5/10		clear patchy	overcast	drizzle	shower
	1305	73°	4/19		clear patchy	overcast	drizzle	shower
*	1415	73	4/12	9.	clear patchy	overcast	drizzle	shower
END	1515	(A°	<u></u> <i>(φ</i> /13)	<u> </u>	clear patchy	overcast	drizzle	shower
Habitat On	-site (circle)	: open solls,	hilltops, riages	, rock outer	ops, soil crusts, clay soils	s, Olu-Tuaus,	Valious lieu	idi sources
		Butterfi	y Species			Tally		Total
Sava	orange		, <b>o</b> p		NA IM			10
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		goldfields, papcorn flower, groundpink
AMERICA NPC	POI	MARIBEAR Please disvegard - not campo Pea
NBCHOI		Collinsia sp., 10+ individuals
NBCHOZ		Collinsia sp 5+ plants
NBAROL		Antivohinum, 10+ individuals
NBCHO3		Coilingia sp 5 individuals on read margin
NBCHO4		Collinsia Sp. 25+
NBCD OI		Cordylartous 5+
NBCD 02		Cordylanthus 15+
NBHLOI		Horned lizard
NBCD 03		Cordylanthus 45.t
NBCH05		Collingia Sp. 1+
NBCD 04		Cordylanthus 25+
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TOTAL NUMBER OF QCB DETECTED: ______ INDIVIDUALS

Recorder:	Autore	He Gu	taweZAdd'l	Person:	lwen	e e	Date: ˌ	5)49	12010
Project:	Manzar	nita Wind En	ergy Project	Map #	: <u>C</u> a	mp0 8	Survey	/ Sxn:	P
GPS Unit :	,				QCB Proto	ا ocol Survey #	_5	of	<u>5</u> .
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	1115	710	1.5/2	O I	clea	patchy	overcast	drizzle	shower
			1.		clea	r patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
				. ~	clear	r patchy	overcast	drizzle	shower
	•				clea	r patchy	overcast	drizzle	shower
	17 17	30	2 = 116		clear		overcast	drizzle	shower
END		18			clear		overcast	drizzle	shower
Habitat On	-site (circle)	: open scus,	hilltops, ridges	, rock outer	ops, soil cri	usts, clay soil	s, old roads,	various ne	ctar sources
		Butterfly	y Species		Ż		Tally		Total
A Mario	1 blue		у оросиос	14 2		12/11			75141
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Pirate	dlad					114			3
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
8/18/3	Chinese Houses	Plant 202 50-100 hillier
81.14651	ZILLONG Sackfallst	Character
F8/A6CHS	chinese Houses	plant for 10-50 road side , u u 50-100 roadside
F& ABCHG	1) (1)	, u le 50-100 vouderde
P8/AGCH7	Chinese Houses	IL 11 10-50 road side
,		Lasthonia Californica
	//	complete
		Groundant
		Bollewheat
		Plugiohothys
		Traytres
resident.		Calistrara lermonii Salvia colombie
	``.	Salvia colombil
	!	
	1 100 PM-04 L	
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TOTAL NUMI	BER OF QCB DE	TECTED: INDIVIDUALS

Page 2 of 3

Recorder:	Margi	e Mull	1995 Addi	Person:			Date:	5.4	.10
Project:	Campo	Wind Energ	y Project	Map #: _	4		_ Survey S	kn:	
GPS Unit :	13		. 1		QCB Proto	ocol Survey#	5	of	5 .
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC		~	Sky		
START	1345	80	2-5	0	otear	patchy	overcast	drizzle	shower
	1530	80	3-6	0	clear	patchy	overcast	drizzle	shower
	'				clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
. END					clear		overcast	<u>drizžle</u>	shower
Habitat On	-site (circle)	open soils	hilltops, ridge	s, rock outc	rops soil cru	usts, clay soils	s, old roads	, various ne	ctar sources
_		Butterfly	y Species				Tally		Total
Pai	nted 1	adu							1
Sa	va 3 00	anose hi	0						4
Pa	LT SLATE	Monta	P.						2
	avly N		· ·						1
Re	hr3 M.	et. Ina	/k						12
						·····	·		2
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
MMLB03	Sousitive plant pt	Linaturs bellus 50 plants
MMDP06	1) /	Delphinum purishii subglubesum 10 plan
MM DP07	11	5
MMDPOB	11	25
MMDP09	( r	10
MMDPIO	· te	11 5
MMDPII	{c	20
MMADO5		Astragalus douglasii perstricts I plant
Necfar Source;		Dendromecon rigida
Source;		Leptosiphon lemmonii
		Lestucinia gracilis
		Salvia Columbariae
		Bullia californica
		Corpopsis californias
·		Layia glandulos o
		Phacelia distans
		Lotis strigosu
		Delphinium panishii subglobosum
		Linantas bellus
		Mimulus gutta LS
		Lypnishalor
		Minuaria doughsii
:		
	BER OF QCB DE	en en en en en en en en en en en en en e

Page 2 of 2

Recorder:	Dale	Powe	-∭_ Add'I	Person: Ka	uny	Stakes	Date: _	5/2	2/10
Project: Campo Wind Energy Project					<u>'2</u>	<u>.5                                    </u>	_ Survey Sx		, ,
GPS Uniț :		6			QCB Proto	ocol Survey #	4	of	5 .
	24-hour)	Temp (F°):	Wind (avg/max)	% cc		-	Sky		
START	1055	590	4/6	3	clear	patchy	overcast	drizzle	shower
	1200	620	_5"/7	0	clear	patchy	overcast	drizzle	shower
			1		clear	r patchy	overcast	drizzle	shower
					clear	· •	overcast	drizzle	shower
					clear	· · · · · · · · · · · · · · · · · · ·	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
END					clear		overcast	drizzle	shower
Habitat On	⊢site (circle)a	open soils,	hilltops, ridges	s, rock outcro	ps, soil cru	usts, clay soils	s, old roads,	various ne	ctar sources
5		Butterfly	Species				Tally		Total
Shit	د ]					1			2
Lady	3				-	11			2,
Behr	3 Met	Talmar	K			lett it	1 114		1/2
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		Layia
		lorthand
		Cacuethorg Bradium
		R. I
		Predium
		Menzanita
	, , , , , , , , , , , , , , , , , , , ,	
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· · · · · · · · · · · · · · · · · · ·	BER OF QCB DE	TECTED: INDIVIDUAL

Page <u>2</u> of <u>2</u>

Recorder:	Margi	e Mulli	gan Addil	Person:			Date:	5.4.1	0
Project:	Campo	Wind Energy	/ Project	Map #: _	5		Survey _: S	xn:	·
GPS Unit:	13	· · · · · · · · · · · · · · · · · · ·			QCB Protoc	col Survey#	5	of	5
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	0900	75°F	0-2	0	Clear	patchy	overcast	drizzle	shower
	1200	80°F	3-6	0	clear	patchy	overcast	drizzle	shower
	1330	90°F	4-6	0	clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
END		_			clear	patchy	overcast	drizzle	shower
	-site (circle):	open soils,	hilltops ridge	s rock outci			, old roads		ectar sources
		Butterfly	Species				Tally		Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AN SPECIES LIST (NECTAR SOURCES, GENERAL	ND GPS POINTS
mmcHo 1	Nectar pt	Collinsia heterophylla	WILDLII L LIS
MMCH02	Nector pt	1.	
MMCH03	Nectar pt	11 10	
MMCHOY	11	te see	
MMCH05	. 11	11	
MMADOI	Sensiticplantyt	Astragalus douglassii perstich	1 1 plan
MMA-DOZ	и. /	11	1 0/247
MMAD03	Sonsitie plant pt	- 16	2 plants
MMADO4	h	- 11	30 p 1941
MMDSOI	Ü	Delphinium panishii subglobsum	3 plants
MMDS02	И	11	soplants
MMGVOI	n n	Gerazaviscida	30 plants
MMGV02	17	11	3 plants
MMLBOI	)/	Linanthus bellus	50 plants
MMLB02	'n	11	30 plants +
Vector Source	2 .	Anisocomo acaule Dicamena linearifolia	
		Lasthenia gracilis	
		Platustemori alitornias	
	14 14	land a glandulosa	
		Phacelia distans	
		Phacelia distans	
		Lephsiphon lemmonii	
		Leptosiphon lemmonii Leptosiphon lemmonii Lupinus conciunus & L. bicopy	ō Svan
		Lephsiphon lemmonii	ō Svm
		Phacelia distans Lephosiphon lemmonii Lupinus conciunus & L. bicopy Delphinium punishii subgloba	ō Svm
		Phacelia distans Lephosiphon lemmonis Lupinus conciunus & L. bicopu Delphinium punishis subgloba Linanthus bellus	ō Svm
		Phacelia distans Lephosiphon lemmonii Lupinus conciunus & L. bicopu Delphinium punishii subgloba Linanthus bellus Minutus guttans	ō Svm

Page 1 of 2

Recorder: Autone	Heloo	helec. Add'i	Person:	ausene	بو_		Date:	4-5-	10
Project: Campa	ita Wind En	ergy Project	Мар я	#: Camp	<u>20</u>	12	Survey S	Sxn: 🙎	13
GPS Unit :	1			QCB Prote			4	of	
TIME (24-hour)	Temp (F°):	Wind (avg/max)	% cc				Sky		
START 900	72		(2)	¢lea	r)	patchy	overcast	drizzle	shower
1000	76	0/2		(clear			overcast	drizzle	shower
Stop 1100	78	215	Ŏ	clear			overcast	drizzle	shower
				clear	[		overcast	drizzle	shower
61				clear	r		****	drizzle	shower
start 1310	18	25/10	0	clear	4			drizzle	shower
END AOO	78	25110	()_	clear	)	patchy	overcast	drizzle .	shower
Habitat On-site (circle):	open soils,	hilltops, ridges	rock outer	ops, soil cri	ústs,	clay soils,	old roads, va	arious nec	tar sources
			The same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the sa	·····					
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
****		SPTO, CATOL PSFL, COBU, NOFL, WEEN, CHOID
		Crypteniale WEST, COBU, NOFL, WEEN, CHOUS
		gilia
		togupta
		False Dandelian
AML (	Wesdrafnest	Thogk
AGNUZ	woodratnest	in dead chamiso
ACAATH 1	California Throster	In change
Astr.	Honed Trand	in chée m 15 P ( hap)
AGCHI	Chinese Hooses	Dlant Dep re-50 10005 on hilltop
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AGCH 2	Chinese Hassa	10-50
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Recorder:_	Dale	Powe	_ <i></i> Add'l	Person:	Bo L	كيللعي	Date:	5/5	110
Project:	Com po Manzan	uta Wind Ene	ergy Project	Map	#: 27-7	3 1	Survey	/ Sxn: <u>( ( ( 4</u>	~ po 9
GPS Unit :		<u> </u>		complete!	∠ _ QCB Proto	ocol Survey	# 4 Vay	, ७ <u>७३</u> of	<u>5</u> .
TIME (2		Temp (F°):	Wind (avg/max)	% cc			Sky		
START	1145	760	4/1	<del>-</del> 2	Cléar		overcast	drizzle	shower
	1400	70	3/5		Clear		overcast	drizzle	shower
	1015	70	3/6	<u>6</u>	clear		overcast	drizzle	shower
÷ ,	1615	75	2/2	<del>  0</del>	Clear		overcast	drizzle	shower
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					clear		overcast	drizzle	shower
END	11 (-1-1-1-1-1		112	Language Control	clear		overcast	drizzle	shower
Habitat On	-site (circle)	: open sous,	hillops, ridge	s, rook outc	rops, son co	JSRS, Clay SO	ils, eld roads	various nec	ctar sources
***************************************		Butterfly	y Species				Tally		Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POIN SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE L	ITS/ _IST)
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		Lesthenia	
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Recorder:	MIKE	l'bbA <u>ca</u> :	NONE	<b>.</b>	Date: _	5 m	14.2010		
Project:	Campo \	Wind Energ	y Project	Map #: _	TILE 21 Survey Sxn: CAMI			PO N	
GPS Unit :	GARI	min 12	·	<u> </u>	QCB Protocol	Survey #	4	of	5 .
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC		-	Sky		
START	09001/129		1-4 mpH	CLEAR	clear	patchy	overcast	drizzle	shower
	1000	73	276	CLEAR	clear )	patchy	overcast	drizzle	shower
	1100	76	1-74	CLEAR	clear	patchy	overcast	drizzle	shower
	1130	73	5->13 MPH	CLEAR	clear	patchy	overcast	drizzle	shower
	4.4		•		clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
END					clear	patchy	overcast	drizzle	shower
Habitat On	-site (circle)	open sons,	hilltops)ridge	rock outer	ops, soil crusts	, clay soils	,old roads	yarious ne	ectar sources
Puttorfly Chasica							Tally		Total

Butterfly Species	Tally	Total
ACMON BLUE	IN FIGLO NOTEBOOK	7
CHECKERED WHITE	la -	1
BEHR'S METALMARK	 	3
PERPLEXING HAIRSTREAK	 J.V. Company	<b>し</b> る
SARA ORANGETIP	 t t	5
PALE TIGER SWALLOWTAIL	 · · ·	<b>ス</b>
FUNEREAL DUSKYWING	 ŧ,	1
JUBA SKIPPER	 l l	1
GABB'S CHECKERSPOT	11	
SPRING AZURE	 11	
SOUTHERN BLUE	$A = A \cdot A$	1
PAINTED LADY	· ·	<u> </u>
HENNE'S CHECKERSPOT	<u> </u>	ス
CALIFORNIA MARBLE	11	ス
HARFORDS SULPHUR	11	1
CALIFORNIA SCOTYWING	Ų	1
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MAP/GPS LABEL	POINT/POL	YGON TYPE		MENTS FO ES LIST (N						
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TOTAL NUME	BER OF	QCB DE1	ГЕСТЕ	D:	ر	8		IND	IVIDL	JALS

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Recorder:_	Natalie	Brodie	Add'I	Person:	Daniel		<del></del>	Date:_	5 Ma	y 2010
			y Project							
GPS Unit:	2			·	QCB Prote	ocol	Survey#	4	of	5 .
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC				Sky		
START	1130	75	7/11	Ø	clea	r)	patchy	overcast	drizzle	shower
	1120	,	• (	-	clea	r .	patchy	overcast	drizzle	shower
					clea	ır	patchy	overcast	drizzle	shower
					clea	<u>r</u>	patchy	overcast	drizzle	shower
					clea	r	patchy	overcast	drizzle	shower
					clea	<u>r</u>	patchy_	overcast	drizzle	shower
END	1230	760	6/11	ø	clea		patchy	overcast	drizzle	shower
Habitat On	-site (circle)	: open soils,	hilltops, ridges	s, rock outc	rops, soil сг	usts	, clay soils	s, old roads,	various ne	ectar sources
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		goldfields, popcorn flower,
NBCHIO		Collingia sp. 30+
MBCAIL		Collinsia Sp. 25+ on nock outcom
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TOTAL NUME	ER OF QCB DET	TECTED: STATE INDIVIDUALS

Page <u></u> e of <u></u> ^マ

Recorder	Natalie	Brodi	l'bbA	Person: 1	Daniel		Date:	5 May	2010	
			y Project							
	:2									
TIME	(24-hour)	Temp (F°):	Wind (avg/max)	% cc			Sky	Sky		
START	1330	720	4/9	100	clea	r) patchy	overcast	drizzle	shower	
	- W		1		clea	r patchy	overcast	drizzle	shower	
					clea	r patchy	overcast	drizzle	shower	
					clea	r patchy	overcast	drizzle	shower	
	1				clea	r patchy	overcast	drizzle	shower	
				1227.5	clea	r patchy	overcast	drizzle	shower	
END	1435	150	5/10	10	clea	r) patchy	overcast	drizzle	shower	
Habitat O	n-site (circle	epen soils,	hilltops ridge	s, rock outc	rops, soil cr	usts, clay soi	s, old roads,	various ne	ctar sources	
	H155274 10174	Butterfl	y Species	-0.00	-0.07		Tally		Total	
Benvs	Metalin	ark			*	Ц	= (5		. 2	
				1186.434		1			1	
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Sava	Orange	tio				MI			+	
Prover	hus Drusk	CALADINA				ì	X2207	-5000000	1	
110		J			2000	v	MIND-			
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			Tree less services					(8)	4	
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		goldfields, fiddleneck, phacelia popuorn Hower
NBHLOI		horned lizard
NBHL02		horned lizard.
	The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s	
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	,				utterfly Prot				
	1/2000	Mag	- Waller	Field D	ata Sheet			e1-1	,
Recorder:	VIVIUNE	Murgu	Add'l F	Person: 🖊	n1110p		Date:	0/0/1	0
Project: _	Campo	Wind Energ	y Project	_ Map #: _	hillip Date: 5/5  Survey Sxn: 5				mps A
GPS Unit	:	C/M	Games		QCB Protoc	col Survey#	5_	of	
TIME (	24-hour)	Temp (F°):	Wind (avg/max)	% CC		***************************************	Sky		
START	9:15	70,7	2.6/43	Ø	clear	patchy	overcast	drizzle	shower
	10:15	69.0	2.1/4.4	9	clear	patchy	overcast	drizzle	shower
	11:40	72.0	3.8/5.4	_Q	clear	patchy	overcast	drizzle	shower
	12:55	75.50	5.3/6.8	<u> </u>	clear	patchy	overcast	drizzle	shower
	2-52	151	6.2/8.5		clear	/ patchy	overcast	drizzle	shower
- LUB	200	74.9°	7//03	Ø	clear	patchy	overcast	drizzle	shower
END Habitat Or	a-site (circle)		7.6/9.8 hilltops ridges	<del></del>	rone collectus	patchy	overcast	drizzle	shower
i iabitat Oi	r site (en eleg	. open sons,	Timtopariages	20ck outc	- Joha, 30/1 Cita.	sts, clay solls	L Old Toads	(Various nec	ctar sources
		Butterfly	y Species			<del></del>	Tally		Total
Behr	- ( Met	almark				174 7	KI IUT	UK III	24
Painte	of Lady					1111	4		
South.	ern Bli	ve				THI	1111		9
Tunere	al Dur	Kywing				j/			7
Cabba	ge whit					/			1
•	non whi					11			2
aomo						((			2
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Sulf	S. 50.					11			2
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G166	. / 0/	kerspot				1			/
Pero	r }	taintre	ak			/			1
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
VMCHOI		3 plants in chamise chapanal opening
VMCH02		7 plants near heletop
VMCH03		about 10 plants
VMMDOI		Scal Mule Seen
		Collinsa Leter ophylla
		Collinsa Later ophylla. Oryptanthe sp.
		eroduin acutanum
		Crub Jay Crow
		Crow
		ansincker intermedia
		Glack-chinned Spanew
		Spotted Towher
		Boldhelds ++++
		Chie
		Lugui sp.
		annual lotus
	,	Pepper grass Cp.
		nenophile
		(#3)
		Note: GPS + trackurp may have
		been turned off in morning-
<u> </u>		` .
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TOTAL NUM	BER OF QCB DE	TECTED: INDIVIDUALS
		Page <u>2</u> of <u>2</u>

Recorder:_	Natalia	Brodie	Add'l	Person:	aniel			Date:	5 May	2010
Project:	Campo	Wind Energ	y Project	Map #: _	1		<del> </del>	Survey Sxr	ı: <u>Å-</u>	·····
GPS Unit:	Gari	Min 2			QCB Prote	ocol	Survey#	45	of	5 .
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC				Sky		
START	0100	62	3/7	10	clea	$\supset$	patchy	overcast	drizzle	shower
01711.0	1015	696	3/9	6	clea	-	patchy	overcast	drizzle	shower
					clea	٢	patchy	overcast	drizzle	shower
					clea	r	patchy	overcast	drizzle	shower
					clea	Г	patchy	overcast	drizzle	shower
					clea	ľ	patchy	overcast	drizzle	shower
END	1100	720	4/10	Ø	clea	<u>)                                    </u>	patchy	overcast	drizzle	shower
Habitat On	-site (circle)	: open soils,	hilltops, ridge	s, rock outc	rops, soil cr	usts	, clay soils	s, old roads, v	various ne	ctar sources
	·	Butterfly	y Species		<del> </del>			Tally		Total
Armon	n blue					IM				3
						itti	Kilkii			17
						n	K(1, )45 11			2
FUNOVE	al Duck	T AMAG				1				1
Dropert	inc Dusk	CA WING			-W4**	li				
Danabak	100	- (		A. 11						
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINT SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST
		gold Reids, papeorn Flower
NBCHOI		Collingia sp., 5+
NBCHOZ		Collinga sp. 6+
NB 4103		Collinsia Sp. 60+, scattered throughout
VBCHO4		Coilinna sp. 100+
NBCHOS		Callinsia Sp. 200+ interspersed w/ goldfields
JB406 .		Collingia Sp. 150+
NBCH07		Collinsia sp. 50t
1BCH08		Collinsia sp. 50+ scattered
VBAROI		Antivrhinum sp. 5+ individuals
JBCHO9		Collinsia sp. # 100+ scattered
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Page 2 of 2

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Recorder:	Marg	ie Mull	igas Add'l	Person: _<	shirley	lunkek	<u>-eh</u> Date:	<u>5.8</u>	. 10
Project:	Campo	Wind Energ	y Project	Map #: _	1-9		_ Survey S	xn:	
GPS Unit :		***			QCB Proto	col Surve <b>y</b> #	5	of	<u> 5</u> .
		T .	Wind		1	*****			
	24-hour)	Temp (F°):	(avg/max)	% CC,			Sky		
START	0900	19276° 80°	4	0%	clear	<u> </u>	overcast	drizzle	shower
	1200	80	6-10	3º/2 5º/0	Cclear		overcast	drizzle	shower
	1500	810	5-9	5%	Clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
END Habitat On	cito (cirolo)	ionon coilà	(5:11t-2) - \( \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \frac{1}{2} = \	1-1-1-	clear		overcast	drizzle	shower
Habitat Off	-Site (Circle)	open sons,	hilltops, ridge	OCK OUTCI	ops soll cru	sts, clay soil	s, old roads	, various ne	ctar sources
		Butterfi	/ Species				Tally		Total
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ACN	ng Azi	J.e							16
		lowfail							8
	-	se Whit							2
		ingetip							5
Pair	stred La	ad 1							2
Gal	063 Ch	eckers	ot-						3
Sin	ereal	Duskun	ing						3
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND G SPECIES LIST (NECTAR SOURCES, GENERAL WI						
Neetar Source	2.	Malacoturix clevelandii						
		M. Californica	···					
		Escholtzia ali Lunica						
		Anisocoma acaule						
		Mimulus aurantiacus						
		Bricameria linearifolia						
		Salva columbanac						
14		Gina capitalm c.						
	Enophyllum confert floring							
	E. Wallecei							
		Phase lia distans						
		Collinsia heterophylla Penstemon develandii						
		Layia glandulos9						
		Charnactis glabriscula i C. al	Jemistoli-					
		Lupinus tuncalis, concinnus, bicolon,	hivsofissing					
MMCHOI-OK	Neetar plant pt	Collinsia heterophylla						
MMHLOI	Sensitive Lizard pt	Horn Lizard						
MMDSOI	Sensitie plant pt	Delphinum parishii subglobosum	100 plants					
MM 950 2	N 1	1111	10 plants					
MM0503		i,	30 plants					
MMDSOY		L1	Soplants					
MMSCOI		Streptantnus Campestris	15 plants					
MMSC02		(1)	10 plants					
MM5003		i e	5 plants					
			<u> </u>					
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			Quino Chec		utterfly Pro ata Sheet	otoco	ol Survey			
Recorder:	Kli	1 Oslav	Add'l	Person:	Leu	<u>,` 5</u>	C 94	ad/Date:	5/5/2	200
Project:	Campo	Wind Energ	y Project	Map#:	Carpo	- <u>_</u>		Survey Sx	kn:	
GPS Unit:	<u> </u>	10			QCB Prot	ocol	Survey#		of	5
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC				Sky		
START	901	70	coh_		Clea	<u> </u>	patchy	overcast	drizzle	shower
906.			. ,		clea	r	patchy	overcast	drizzle	shower
1015		77	1.5/5,8	. 0	Clea	3	patchy	overcast	drizzłe	shower
140		72	85/14	ర	clea	2	patchy	overcast	drizzle	shower
			<u> </u>		- clea	r	patchy	overcast	drizzle	shower
	7/-		C = /14 =		clea		patchy	overcast	drizzle	shower
END			9.9/14.7		clea		patchy	overcast	drizzle	shower
Habitat On	-site (circle)		hilltóps, ridges	·	rops, soil cr	usts,	clay soils	, old roads,	various ne	ctar sources
		Butterfl	y Species	2	· .			Tally		Total
Place	ajus ac	hoh				11				2
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
	Coudylouthus	0559005/361471 garand avaz 30×30
	* *	of abundand Coodylanthone Vigiden
	• •	0559468/3615121 : huntrals C. Michael.
	~,	0559853/3615103 =~50 Collinsia
#5	(thousands)	(0559496/3615156 to = -ton thousand C. rigidas
*6	4 C3 fres and	0559365/3615122 to 2 ~ outhousand C. rigides 0559319/3615122 to 2 ~ outhousand C. rigides
7	Cordyla Alvar	0558795/36/4903
	Collinsia (	0560010/3614974 - 100 Collinsda in 2 M
		0560002/3614963 ~ « « / M²
	~ {	0559800/3612717 ~ " " /M2
		0559850/3614653 ~ 200 " " :4/10 M2
		0559538/3614573 ~ 500 11 11 ;a 100 cme
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Page Z_of _Z

Recorder:	MIKE	COUFFE	Add'l	Person:	NONE	_		Date:	5 MA	1,2010
			y Project							
		min 17								5 .
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC				Sky		
START	1200	82	HOM F (-)	CLEAR	Clea	ir)	patchy	overcast	drizzle	shower
	1300	-	2-710	CLEAR	clea	7	patchy	overcast	drizzle	shower
	1400	77	3-710	CLEAR	clea	5	patchy	overcast	drizzle	shower
	1500	78	3->10	CLEAR	clea	r	patchy	overcast	drizzle	shower
	1548	77	3->13	5% Course	clea	r	patchy	overcast	drizzle	shower
			* -		clea	r	patchy	overcast	drizzle	shower
END				ļ·	clea		patchy	overcast	drizzle	shower
Habitat On	-site (circle)	open soils,	hilltops ridge	grock outcre	ops, soil cr	usts	, clay soil	s old roads	various ne	ctar sources
		Butterfly	y Species					Tally		Total
SPRIN	6 WHIT	E					N FIEL	STON O.	BOOK	2
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
MCHL20	PoinT	
MCHL 21	POINT	
	DINTS REPRESENT	COLLINSIA SP. LOCATIONS. NUMBERS 1-> 385
		N THIS MAP AND CAMPON, MAP TILE 21
MC CORIZAN	· _	
, , , , = 0-		A SPINEFLOWER NOT CURRENTLY FLOWERING BUT IF A SPECIAL STATUS SPINEFLOWER
		IS IN THE AREA, THIS LOCATION SHOULD B
		CHECKED.
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		TECTED: INDIVIDUAL

Recorder:	Dale	Paws	MbbA	Person:	30 W	illry	, Date	= 5/5	10
Project:	-Manzan	ta Wind End	ergy Project	Map #	#: <u> </u>	21	Surve	ey Sxn:	ampa 9
GPS Unit	:	<u> </u>			QCB Prof	ocol Sur	vey# <u>5</u> _	of	5 .
	24-hour)	Temp (F°):	Wind (avg/max)	% cc			Sky		
START	345	チスペ	3/,5	0	<u>Č</u> les	pat pat	chy overcast	drizzle	shower
	100	7-22	_5/6	$\bigcirc$	clea	pat	chy overcast	drizzle	shower
	1120	73	4.17		clés	pat pat	chy overcast	drizzle	shower
	1135				clea	ır pat	chy overcast	drizzle	shower
					clea	ır pat	chy overcast	drizzle	shower
					clea	r pat	chy overcast	drizzle	shower
END					clea	r_ pat	chy overcast	drizzle	shower
Habitat On	-site (circle):	open soils,	hilltops, ridges	s, rock outcr	ops soil ci	usts, cla	y soils, old road	s, various ne	ctar-sources
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		Butterfly	Species				Tally		Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)						
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		Ponstruon						
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TOTAL NUME	BER OF QCB DET	ECTED: INDIVIDUALS						

Recorder:	ENK	LACOSTO	Add'l	Person:			Date	5/5	/10
Project:	Campo	Wind Energ	y Project	Map #: _	# 14	1,15	_ Survey S	Sxn: K	
GPS Unit	7	<u>- •%</u>			QCB Prôto	ocol Survey	# <u>.5</u>	of	5
	24-hour)	Temp (F°):	Wind (avg/max)	% CC	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	_	Sky		
START	845	64	3-6	4	Ciear	patchy	overcast	drizzle	shower
	1100	71	9-8 1	-19-13 3	Clear		overcast	drizzle	shower
	130	72	8-12	<del>,0</del>	(Jear		overcast	drizzle	shower
				1.	clear	patchy	overcast	drizzle	shower
					clear		overcast	drizzle	shower
END	230	76	6-10		clear		overcast	drizzle drizzle	shower
		open soils	hilltops, ridges	rock oùtér			overcast		shower ectar sources
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		Butterfly	y Species	**  2	* * ****		Tally		Total
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Strain Strain

MAP/GPS LABEL.,	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
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ELCOHEUZ	P	Collinsia 300-400 laborduels.
		eradium sp
		Plagrobothing SP
		Plagrobothing SP. Mustard SP.
		Lupine Sp.
		AMSMEN
		Cummisonia SP.
		LASCAL
		KETANT
11. Å 81	•	Line will the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the se
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## Quino Checkerspot Butterfly Protocol Survey

			Quino Onco		ata Sheet	otocor our vey			
Recorder:	KH	Osbor	- Le Add'l	Person:	Laures	م دو	Date: _	5/6/	2010
			y Project						
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TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky	· · · · · · · · · · · · · · · · · · ·	•
START	905	67	1.8/4.4		clea	patchy	overcast	drizzle	shower
1030	1030	71	1.5/4.4	ಧ	clea	patchy	overcast	drizzle	shower
	102		3.7/13.5		clea	patchy	overcast	drizzle	shower
Railoud	300	7,5	4.3/9.3	6	clea	n) patchy	overcast	drizzle	shower
			/	1	clea	r patchy	overcast	drizzle	shower
	·				clea	r patchy	overcast	drizzle	shower
END	355	74		<u>له</u>	Clea	patchy	overcast	drizzle	shower
Habitat On	-site (circle)	: open soils	, hilltops, ridges	, rock outo	rops, soil cr	usts, clay soils	s, old roads,	various ne	ctar sources
		Butterfl	y Species		· <del>-</del> ··		Tally		Total
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A. 5	a 173					44 1111			9
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<u>c.</u>	5 9 6 623					111(22)	a has be good a ha	1	3
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MAP/GPS LABEL,	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
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KOCO102	Collinsia	2 plants
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TOTAL NUMBER OF QCB DETECTED: _____ INDIVIDUALS

Project: Manzamine Wind Energy Project Map #: 23 Survey Sxn: (a upo)  GPS Unit: 0 QCB Protocol Survey # Vavis of 5  TIME (24-hour) Temp (F): (avylnox) % CC Sxy  START \$ 3.30 CO 2 / 4 © digat petchy overcast drizzle shower dear patchy overcast dri		L 3 . a . / ()	. ``	Add'l		•				f .
TIME (24-hour)  Temp (F°): (avg/max) % CC  START 2:30 (0° 2 4 0° dear patchy overcast drizzle shower  Glear patchy overcast drizzle shower  clear patchy overcast drizzle shower  END clear patchy overcast drizzle shower  clear patchy overcast drizzle shower  END clear patchy overcast drizzle shower  END clear patchy overcast drizzle shower  END clear patchy overcast drizzle shower  Tally Total  Behan Mathematic Total  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost In But  Cost	Project:	Manzan	rita Wind En	ergy Project	Мар	#:	23	Survey	Sxn:u	wpoQ
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Pith 7 30   1 3			Temp (F°):		% CC			Sky		
clear patchy overcast drizzle shower  clear patchy overcast drizzle shower  clear patchy overcast drizzle shower  clear patchy overcast drizzle shower  clear patchy overcast drizzle shower  clear patchy overcast drizzle shower  clear patchy overcast drizzle shower  END  clear patchy overcast drizzle shower  END  clear patchy overcast drizzle shower  END  clear patchy overcast drizzle shower  Habitat On-site (circle): open soils, hilltops, ridges, rock outcrops, soil crusts, clay soils, eld reads various nectar sources  Butterfly Species  Tally  Total  Soothy One  Company of the shower  Annual Shull  Company overcast drizzle shower  Tally  Total  Company overcast drizzle shower  Tally  Total  Company overcast drizzle shower  Tally  Total  Company overcast drizzle shower  Tally  Total  Company overcast drizzle shower  Tally  Total  Company overcast drizzle shower  Tally  Total  Company overcast drizzle shower  Tally  Total  Company overcast drizzle shower  Tally  Total  Company overcast drizzle shower  Tally  Total  Company overcast drizzle shower  Tally  Total  Company overcast drizzle shower  Tally  Total  Company overcast drizzle shower  Tally  Total  Company overcast drizzle shower  Tally  Total  Total  Company overcast drizzle shower  Tally  Total  Total  Total  Company overcast drizzle shower  Tally  Total  Total  Total	START	8:30		2/4			~	overcast	drizzle	shower
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Clear patchy overcast drizzle shower				***		clea	patchy	overcast	drizzle	shower
END Habitat On-site (circle): open soils, hilltops, ridges, rock outcrops, soil crusts, clay soils, eld reads various nectar sources  Butterfly Species Tally Total  Soot bu Alue  Aum Blue  Clear patchy overcast drizzle shower  Habitat On-site (circle): open soils, hilltops, ridges, rock outcrops, soil crusts, clay soils, eld reads various nectar sources  Habitat On-site (circle): open soils, hilltops, ridges, rock outcrops, soil crusts, clay soils, eld reads various nectar sources  Habitat On-site (circle): open soils, hilltops, ridges, rock outcrops, soil crusts, clay soils, eld reads various nectar sources  Habitat On-site (circle): open soils, hilltops, ridges, rock outcrops, soil crusts, clay soils, eld reads various nectar sources  Habitat On-site (circle): open soils, hilltops, ridges, rock outcrops, soil crusts, clay soils, eld reads various nectar sources						clea	patchy	overcast	drizzle	shower
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Butterfly Species  Reha Mitchiach  Scothin Alue  Auma Blue  Chilip White  1  Par Duallowful						clear	patchy	overcast	drizzle	shower
Bohn Mitchmark  Soother Blue  Armon Blue  Armon Blue  Archard White  Par Sundbrital  1  1  1  1  1  1  1  1  1  1  1  1  1	Habitat On	-site (circle)	cpen soils,	hilltops, ridges	s, rock outc	rops, soil cr	usts, clay soil	s, eld roads	rarious nec	tar sources
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST
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Project:	Manzar	ုပ ita Wind End	ergy Project	Map #:		25	Surve	y Sxn: C	mes R
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TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	1010	74 0	3/5	0	Clear	<	overcast	drizzle	shower
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END					clear		overcast	drizzle	shower
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
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TOTAL NILIM	BER OF QCB DET	TECTED: INDIVIDUAL

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Project: _	Campo	Wind Energy	y Project	Map #: _	19			Survey S	xn: <u>Carv</u>	90 - P
GPS Unit	Gar	min i	2		QCB Prot	ocol	Survey #	5	of	5
TIME (	24-hour)	Temp (F°):	Wind (avg/max)	% cc				Sky		
START	1345	750	3/5		Clea	5	patchy	overcast	drizzle	shower
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END	1540	73°	3/7	16	Clea	5	patchy	overcast	drizzle	shower
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)						
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		-						
TOTAL NUM	BER OF QCB DE	TECTED: 6 INDIVIDUALS						

				Field Da	ata Sheet				
Recorder:	MIKE	COUPFER	ا'Add <u> </u>	Person:	NONE		Date:	6 may	1.2010
Project:	Campo	Wind Energ	y Project	Map #: _	TILE	24	_ Survey Sx	n: <u>CAM</u>	OR)
GPS Unit	<u>Gar</u>	min 13			QCB Prote	ocol Survey #	5	of	5 .
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	0830	69	0	CLEAR	Clea	patchy	overcast	drizzle	shower
	0900	70	1->3	CLEAR	clea		overcast	drizzle	shower
	1000	7(	1->3	CLEAR	clea	patchy	overcast	drizzle	shower
	1100	73	1->5	CLEAR	clea	patchy	overcast	drizzle	shower
	1200	76	Ø>>5	CLEAR	Clea	patchy	overcast	drizzle	shower
	/300	8/	8->4	CLEAR	clea	patchy	overcast	drizzle	shower
END	1400	83_	Ø->3	CLEAR	Clear		overcast	drizzle	shower
Habitat On	-site (circle) ノらのの ナル	SS, 77°F,	Chilltops Fidge /→>る かのみ。	್ರಾrock outcr , ८८६A८	ops, soil cr	usts, clay soil	s, old roads,	various ne	ectar sources
			y Species				Tally		Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
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MCQB15	Point	
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	BER OF QCB DE	TECTED: (3) INDIVIDUAL

				Field Da	ata Sneet				
Recorder:	Natalic	Brodi	Add'l	Person: $\overline{\underline{P}}$	Rillip		Date:	6 May	, 2010
Project: _	Campo	Wind Energ	ıy Project	Map#:_					
GPS Unit	: Garr	nin 12	7		QCB Prote	ocol Survey	#	of	5
TIME (	24-hour)	Temp (F°):	Wind (avg/max)	% CC		· · · · · · · · · · · · · · · · · · ·	Sky		
START	0930	69°	2/5	Ø Ø	clea	patchy	overcast	drizzle	shower
	1100	73	2/5		clea	patchy	overcast	drizzle	shower
	1230	75°_	3/5	Ø	clea	patchy	overcast	drizzle	shower
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END		75°		Ø	clea	patchy	overcast	drizzle	shower
Habitat Or	n-site (circle)	): open soils,	hilltops, ridges	s, rock outc	rops, soil cr	usts, clay so	ils, old roads	, various n	ectar sources
		Butterfl	y Species	<u> </u>	2 - C		Tally		Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
MBCHOI		collinsia sp. 35+
		goldfields popiorn flower, gilia cap,
MBCHOZ		Corlinga sp. 5t
NBCH03		Collinsia sp. 15t Scattered
NBCHO4		Collinsia sp. 30+ scattered w/in patches of goldfield
NBHLOI		Hornes Lizard
NBHLOZ		Horned lizard
vectos		Collinsia sp. 40+, Antirothinum sp. scattered (15+
NBAROI		Antirchinum sp. 20+
NBAR 02		Antirchinum sp. St
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TOTAL NUM	BER OF QCB DE	TECTED: Ø INDIVIDUALS

Page <u>2</u> of <u>2</u>

Recorder:_	Marg	, NUM Si	aan Addil	Person:		****	Date:	5.6.2	010
Project:	Campo	Wind Energ	y Project	Map #:	19-0		Survey S	xn:	
GPS Unit :		2			QCB Protoco	ol Survey#	_5	of	
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		**
START	0900	620	4-7	0%	clear	patchy	overcast	drizzle	shower
	1200	72°	3-6	0%	clear	patchy	overcast	drizzle	shower
	1430	75°	4-8	0%	clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
	-				clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
END	-16- (-11-)		1.00	<u> </u>	clear	patchy	overcast	drizzle	shower
Habitat On-	-site (circle)	open soils,	hilitops, ridge	s, rock outc	rops, soil crust	s, clay soils	old roads	, various ne	ectar sources
01	C . II		/ Species			2.0	Tally		Total
	Snalla							27.72	- 1
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Beh	r's Me	Halmar	K						12
Che	Kered	White		TT-C THE			146		32
Sul	hur sp			511					12
Duck	kywih	9				11122-1216-			2
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MAP/GPS LABEL	POINT/POLYGON TYPE		ED POLYGOS AND GPS POINTS/ RCES, GENERAL WILDLIFE LIST)
Nedar		Couptant spp.	
Source:		Cryptanta spp. Escheltzia Californ	ica
		Amsinkia menziesi	<u> </u>
		Lastneria gracilis	
		Trichostemma lanal	m
		Lipinus bicolor	
		L' concinnus	
		Aztragalus douglas	sii perstads
,		Marah macrocarps	5 m.
MMOHOI	Hostolant 2+	Collinsia concolor	
MMGVOI	Sensitive plant pt		30 plants
MM GJOZ	1	11	1 plant
MMADOI	fi	Astragalus doug	ilasis perstiatis 50 plan
MMAD82	11	. 0 21	40 01991
MMADPO3	£ 4	11	2 plants
MMADPOT	11	(r	1 plant
MMADPO5	11	(r	25 plants
MMADPO6	l.	. (1	1 plant
			u ·
	4 .		
TOTAL NUM	BER OF QCB DE	TECTED:	INDIVIDUALS

Recorder:	Margi	e Mulli	99h Add'l	Person:			Date:	5.7-	2010
Project:	Campo	Wind Energy	/ Project	Map#:	11-4		_ Survey S		
GPS Unit:		5			QCB Protocol	Survey#	_5	of	5 .
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	0900	65°F	6-10	0%	clear	patchy	overcast	drizzle	shower
	1200	74012	2-4	0%	clear	patchy	overcast	drizzle	shower
	1245	76°F	2-4	0%	clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
END					clear	patchy	overcast	drizzle	shower
Habitat On	-site (circle)	open soils,	hilltops ridge:	s rock outc	rops, soil crusts	clay soil	s, old roads	various ne	ectar sources
			Species	5000-			Tally		Total
Behr	3 Med	glanare							37
Fines	al Dus	kywing						570	2
Den	um Blu	eywing					77-2		111
	by Man						100		
Chro	Kered	White	.4		1				3
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71-57									
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	Electric property								
								100	
	1970 - 19		- 1994 - 19	-					

MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
Nectorplant	ø	Cryptanting Sp?
1 00 10.0		Plagiobothrys spp.
		Salvin columbanac
		Mimulus avrantiaous
A. 44 - 44 - 44 - 44 - 44 - 44 - 44 - 44		Ceanotws lev codermis
		Uropappus lindlegi
-n		Leptosiphon lemmonii
	-	Lupinus ondinais
		Collinsia concolor
		Amsin a an enziesij
		Layra glandutoss
MMCHOI	Host plant pt	Collinsta
MMCH02	' '	T)
MMCH03		· It
MMCH04		1)
MMCHOS		11 15 21 and 3
MM 6502		Delphinium punishii subglobosum 20 plants
MMDS03		trela 25
MMDSOY		35 plants
MMDSOS		25 plants
MMDS06		20p19nts
MMDS07		10 plants
MMDS08		25th Day olagts
MMDS09		25 plants
MMDSID		10 plants
MMSE01		Calopastoris Steptanthus amportes plants
MMSC02		10 plants
12 11-1 3002		10 plants
	BER OF QCB DE	TECTED: O INDIVIDUALS

Page $\overline{\mathcal{V}}$  of  $\overline{\mathcal{V}}$ 

Recorder:	Maro	le Mu	11995 Add'I	Person:			Date:	5.7.2	010
					16-H				
					QCB Protocol		_		<u> </u>
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky	349-320	
START	1300	790	2-4	0	Clear	patchy	overcast	drizzle	shower
	1530	820	2-5	0	clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
				10000000	clear	patchy	overcast	drizzle	shower
		NI P			clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
END					clear	patchy	overcast	drizzle	shower
Habitat On	-site (circle)	): open soils,	hilltops, ridge	s, rock outc	rops, soil crusts				
	1=1	Butterfly	Species				Tally	8	Total
Brhr	3 Mach	almark							17
	Swallo								3
Acn	non DI	UP.		N=3*-1					12
elen	Karsac	tichala	edon Ch	ockers	PET				17
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		-					20.77863		

MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND G SPECIES LIST (NECTAR SOURCES, GENERAL WIL	PS POINTS/ _DLIFE LIST)
MMCH06	Host plant pt	Collinsia	
MMCHOT			
MMCH08			
MARKER			
MMCHIO			
MMCHII			
MMCH12			
MMADOI	sensitive plantpt	Astragalus douglasii persticts	5 plants
MMAD02	1	1,	10plants
MMDPOI			15 plants
MM DPO2			loplants
MMDP03			10014118
1 (1)			
NorAnn		Phacelia parryi	
Necfar Source;		Sylvia columbariae	
5000		Charnach's glabriscula	
		Catemist blin	
		Cryptantac Spp.	
	A**-	Gilia capitalim c.	
		Lupihus trunca 45	
		L bicolor	
		C concinnus	
		Collinson concolor	<u> </u>
		Layin glandulosa	
		Surjivi off words 10 3 ,	
-			
<u> </u>			
	BER OF QCB DE	TECTED: 1ND	IVIDUALS

Recorder:_	DAVID	K. FALIKNER	Add'l	Person:	Thomas		Date:	711	1 2010
Project:	Campo	Wind Energy	/ Project	Map #: _	16		Survey S	kn: <u>CAM</u>	80 G
GPS Unit :	# :	۷			QCB Protoco	Survey#	5	of	5,
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	1300	80	3	Ø	clear	patchy	overcast	drizzle	shower
	1400	80	4	ø	Clear	patchy	overcast	drizzle	shower
	1500	80	3	Ø	Clear	patchy	overcast	drizzle	shower
		1 1			clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
END	1600	78	6		(lear)	patchy	overcast	drizzle	shower
Habitat On-	-site (circle)	copen sous,	bilitops, didge	s, cock outc	rops, soil crusts	s, clay soils	, old roads	, various ne	ectarsources
		Butterfly	Species				Tally		Total
A. Nirgi	iti			52.55			2010		3
,							ALC: VIEWS		3
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
16 'G"	115 0560572 UTM 3616257	Collansia = 100+ plants
	115 0560562 - UTM 361 5515	Collensia - 100° pints
		Blos De Ve
		Blue Drcks Cryptontha
	RED OF OCR DE	TECTED: INDIVIDUAL

Recorder:	DAVI.O	K. FANIKU	Add'l	Person: _	Thomas	3	Date:	7 44-	2010
Project: _	Campo	Wind Energy	v Project	_ Map #:	- 11		Survey S	xn: CAM	80 6
3PS Unit			-1900		_ QCB Protoc	ol Survey#	5	of	5
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC	T		Sky		Servicion.
START	1160	76	٤	Ø	clear	patchy	overcast	drizzle	shower
	1200	80	3	ø	Clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
END	1300	08	3	Q.	clear			drizzle	shower
abitat On	-site (circle)	epen soils	killtops ridges	s, rock outc	rops soil crus	its, clay soils	old roads	, various	ectansource
		Butterfly	/ Species				Tally	1	Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
11 "G"	115 0560359 UTM 3616924	Cellensia 250 plants Potential laure
	ness services	•
	118 0560647 UTM 3616926	Homed Lizard, Jumel
	01,74 9816 126	
	119 056774	Collensia ~ 25 plants
	UTM 3616771	Collandia 23 plants
	115 0560718	
	UTM 3616418	collensia ~ 100 plants.
		·
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	-	
TOTAL NUM	BER OF QCB DE	TECTED: Ø INDIVIDUALS

					Thorns			155	
roject: _	Campo	Wind Energy	/ Project	Map #:	12	- 4	Survey S	xn: CAM	PO G
SPS Unit	:#2_				_ QCB Protoco	l Survey#	5	of	5
TIME (	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	0900	69	3	Ø	clear	patchy	overcast	drizzle	shower
	1000	72	7	Ø	clear	patchy	overcast	drizzle	shower
			27.	81	clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
		-			clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
END	1100	76	6	\$	clear	patchy		drizzle	shower
abitat Of	i-site (circle	): Open sous,	militoba erages	S POCK OUTO	rops, soil crust	s, clay solls	s, old roads	, various no	ectar source
		Butterfly	Species				Tally		Tota
P. Acmo	ч		- 14	2000 NO. 100 NO. 100 NO. 100 NO. 100 NO. 100 NO. 100 NO. 100 NO. 100 NO. 100 NO. 100 NO. 100 NO. 100 NO. 100 N					6
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGO SPECIES LIST (NECTAR SOURCES, GEN	ERAL WILDLIFE LIST)
12	115 0561129 UTM 3617395	Collensia ~50 plants	Potential Lowe
12	115 0561368 UTM 3617481	Collensia ~ 30 plants	
<b></b>			
		CryptonTky	
		Goldfields	
,		Cryptantes Goldfields Collensia	
		•	
		-	
OTAL NILIM	BER OF QCB DE	FCTED: &	INDIVIDUAL

Recorder:	MINE	COUFFE	(bbA <u>C 9</u>	Person:	NONE				V.2010
Project: Manzanita Wind Energy Project Map #: MAP VILE QU Survey Sxn: CAMPO - R)								MPO-R)	
GPS Unit: GARMIN 10					QCB Protoco	l Survey#	5	of	5 .
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	0838	72	HOM F <- X	CLEAR	clear	patchy	overcast	drizzle	shower
	0900	73	Ø->8	CLEAR	clear	patchy	overcast	drizzle	shower
21.77	1000	75	8->8	CLEAR	clear	patchy	overcast	drizzle	shower
	1100	76	Ø-> 6	CLEAR	clear	patchy	overcast	drizzle	shower
	1200	83	Ø >> 4	CLEAR	clear)	patchy	overcast	drizzle	shower
	/300	28	Ø->2	CLEAR	clear	patchy	overcast	drizzle	shower

Habitat On-site (circle): open soils hilltops ridges rock outcrops soil crusts, clay soils old roads various nectar sources

(clear)

patchy

overcast

drizzle

shower

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1-36

1500HRS, 84°F. 1-> 4 MPH, CLEAR **Butterfly Species** Tally Total IN FIELD NOTEBOOK ACMON BLUE 64 SARA ORANGETIP 25 HENNE'S CHECKERSPOT 54 ų. PALE TIGER SWALLOWTAIL 3 CALIFORNIA MARBLE 1 PAINTED LADYD  $\bigcirc$ CALIFORNIA SOOTYWING u u 8 FUNEREAL DUSKYWING GABB'S CHECKERS POT i, WEST COAST LADY 11 1 BEHR'S METALMARK 7 HARFORDS SULPHURS 4 W QUIND CHECKERSPOT BUTTERFLY 1 SPRING WHITE W **7**J SPRING AZURE 8 PERPLEXING HAIRSTREAK ħ る GORGON COPPER (LYCAENA GORGON) 11 ス SOUTHERN BLUE Ų, 11 1 BUCKEYE

MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
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TOTAL NUM	BER OF QCB DE	TECTED: INDIVIDUAL

Recorder:_			[[Add']				Date: _	5/7/	<u> </u>
Proje <b>ct</b> :	Coin p Manzon	ಎ ita Wind En	ergy Project	Мар	#: <u>\S</u> -	. 16	Survey	Sxn: (au	~ P
GPS Unit :		6				ocol Surve <b>y</b> #	5_	of	<u>5</u> .
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	13 45	79 0	6/7	0	Clean	patchy	overcast	drizzle	shower
011411	145	780	21/4	0	effear		overcast	drizzle	shower
	,,,,,,	131.	9/1		clear		overcast	drizzle	shower
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					clear		overcast	drizzle	shower
					clear	· · · · · · · · · · · · · · · · · · ·	overcast	drizzle	shower
END					clear		overcast	drizzle	-shower
	-site (circle)	onen soils	hilltops, ridge	s rock puter					
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		Butterfly	y Species				Tally		Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
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Recorder:	Dale	Pow	<u>ell</u> Add'I	Person:	John	BOST	C Date:	5/7	10
Project:	(On h	ုပဲ ika Wind End	ergy Project	Map	o #:	8	Survey	/ Sxn: <u> </u>	mpo W
GPS Unit :		6					#5		•
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	8772	3 (0	5/6		Clea		overcast	drizzle	shower
	10.00	75°	- 6/1-8 	9	clea		overcast	drizzle	shower
	13/35	78	- 3/8	8	Cleà		overcast	drizzle	shower
	(2,2)	$T \circ$	7/0		clea		overcast	drizzle	shower
•					clea		overcast overcast	drizzle drizzle	shower shower
END					clea		overcast	drizzle	shower
	-site (circle)	: open soils,	hilltops, ridge	rock out			ils, old roads		
			/ Species				Tally		Total
Bar	· Mit	lomal				Let 15	T AND AND	-	12
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
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TOTAL NUM	REP OF OCR DE	TECTED: INDIVIDUALS

Page 2 of 2

Quino Checkerspot Butterfly Protocol Survey									
	Field Data Sheet								
Recorder:	Recorder: MIKE COUFFER Add'l Person: Jimmy McMorran Date: 8 MAY, 2010								
			y Project						
GPS Unit :	GAR	min 7	<u> </u>		QCB Proto	ocol Survey	# <u> </u>	of	.5 <u>.</u>
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky	-	*
START	1215 HES	79	4->11	CLEAR	Ciear	patchy	overcast	drizzle	shower
	1300	77	2->6	CLEAR	Cléar		overcast	drizzle	shower
	1400	78	4->14	CLEAC	ctear		overcast	drizzle	shower
	1500	79	4->9	CLEAR	clear	patchy	overcast	drizzle	shower
	1520	78	Z -> 7	CLEAR	clear	patchy	overcast	drizzle	shower
	14. 4	r i e			clear	patchy	overcast	s drizzie	shower
END					clear	patchy	overcast	drizzle	shower
Habitat On	-site (circle):	open soils	hilltons, ridge	s, rock outc	rops, soil cru	ısts, clay so	ils, old roads,	various nec	tar sources
					-				
			y Species				Tally		Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
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MCHL27	POINT	
MCHL28	Point	
MCHL 29	POINT	
MCHL 30	Point.	
VII CITE OO	101113,	
NUMBEREO P	bints Represent	POINTS WHERE COLLINSIA SP. WAS MARKED.
	-	COLOR COLOR

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	BER OF QCB DE	TECTED: INDIVIDUALS

Page <u>2</u> of <u>2</u>

Recorder:	Recorder: MIKE COUFFEE Add'I Person: Jimmy Mc MORRAN Date: 8 MAY, 2010								
Project:	Project: Campo Wind Energy Project Map #: MAP TILE 5 Survey Sxn: CAMPO - C								
GPS Unit :	GAR	MIN Z	<u> </u>		QCB Proto	ocol Survey #	<u></u>	of	. 5 <u></u>
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	0845 HB	66	&->3 mph	CLEAR	clear	patchy	overcast	drizzle	shower
	0900	71	Ø-13		clean		overcast	: : drizzle	shower
	1000	72	1-54	CLEAR	cléai	patchy	overcast	drizzle	shower
	1100	72	1->4	CLEAR	elear	<u> </u>	overcast	drizzle	shower
	1200	74	U->9 mPy	CLEAR	clear	*	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
END					clear	patchy	overcast	drizzle	shower
Habitat On	-site (circle)	open soils	hilltops y ridges	sorock outcr					
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		Butterfl	ly Species				Tally		Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
MCHL 24	Point	
MCHL25	Point	
NUMBERED P	DINTS REPRESENT LO	PATIONS WHERE COLUMNIA SP. WAS MARKED.
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TOTAL NUMBER		TECTED: ~/ INDIVIDUAL C
TOTAL NUMB	BER OF QCB DET	rected: individuals

Page <u>2</u> of <u>2</u>

Recorder: Dale Powe		Person:	nohn!	Bostick	Date:	5/8	10
Project: Managhita Wind Er	nergy Project	Map	#: 10,1	5.16	Survey	Sxn:	J.H of
GPS Unit :	? ?		QCB Prot	ocol Survey #		of	5 .
TIME (24-hour) Temp (F°):	Wind (avg/max)	% CC			Sky		
START 3:30 63	7/8		clea	7	overcast overcast	drizzle drizzle	shower shower
120 20	8/12	3	clea		overcast	drizzle	shower
430 76	8/1	Q	t clea	patchy	overcast	drizzle	shower
15 15 7-70	11114	0_	Clea	patchy	overcast	drizzle	shower
			clea		overcast	drizzle	shower
END Habitat On-site (circle) eper soils	dillione etdas	s rock outco	clear		overcast	drizzie	shower
Trabitat OTF-site (Grole) Soperi sous	, dintops, dage:	S, IBOK OUICI	ops, son ci	usis; clay sons	Cold Toads,	Various nec	
Butterf	ly Species				Tally		Total
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Pale Swallowta			'	44-11	711		12
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
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Page 2 of 2

				Field L	ala Sheet				
Recorder:_		Powell	L Add'l	Person:	John !	Bestick	Date: _	5/8	110
Project:	_Manzan	ು ita Wind En	ergy Project	Мар	#:	16	Survey	Sxn:	meH
GPS Unit:		6			_ QCB Prote	ocol Survey#	5	of	_5
TIME (2		Temp (F°):	Wind (avg/max)	% CC			Sky		-
START	35:20	780	5/7	70	clea	r patchy	overcast	drizzle	shower
	16120	75	6/9	0	Clea	patchy	overcast	drizzle	shower
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					clea	r patchy	overcast	drizzle	shower
					clea	г patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
END					clea		overcast		shower
	-site (circle):	open solls	dilltops, didges	s, rock out					
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···		Butterfl	y Species				Tally		Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
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TOTAL NUME	BER OF QCB DET	rected: Individuals

Recorder:_	Marg	ie Mul	11999 Add'l	Person:			Date:	5/11/	2010
Project:	Campo	Wind Energ	y Project	Map#:_	13-1		_ Survey S	kn:	
			***				5	of	5 .
TIME (2		Temp (F°):	Wind (avg/max)	% CC			Sky		
START	1330	74"	2-4	5	clear	patchy	overcast	drizzie	shower
	1545	740	3-6	0	elear	p atchy .	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
	٠.				clear	patchy	overcast	drizzle	shower
			. *		clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
END					clear		overcast	drizzle	shower
	-site (circle)	epen soils.	hilltops ridge	rock outc			s. old roads	. various(ne	ectar sources
						,,	-,	,	
		Butterfi	y Species				Tally		Total
Behr	's Mel	almark		•					32
		skywi							1
216	44 64	J	7			•			2
DUSE									4
Acu	Son Bi	JE							
Che	dered	White							3
	coly N								2_
Da		llowtai	H						2_
5		grange							2
		Society							3
		J. U							
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
MMLB01	Sensitive plant pt	100 plants Linantaus bellus
MMMVCAOI	11)	20 plants Mucronea California
MANASRPOL		Astropalus do ogtasii porstrictos 2 plants
MMHLOI	Sensitive Lizard pt	Horn Lizard
MMH202	11	Horn Lizard
annes one se	Sensitive plant st	Dent Astrogates dooglassi perstrako
		, ,
Nectuv		
Source:		Erysinum capitatim c.
		Minulus fremontii
		Cryptautra spp.
		Letis stricesus
		Layin glandulosa
		Lasthenia gracilis
		U
		-
	-	
TOTAL NUM	BER OF QCB DET	TECTED: D INDIVIDUALS

Page 2 of 2

Recorder:	Maro	JIC MU	11/59 1/Add'1	Person:			Date:	5/11/	20/0
Project:	t. <u>Campo Wind Energy Project</u> Map #:				7+8		_ Survey Sx	n:	_
	vá.					(a/Maga	=15/M	14P 7-F)	
GPS Unit :		1)			QCB Protoco	Survey #	@[nipo	<u> </u>	5
			Wind						
	24-hour)	Temp (F°):	(avg/max)	% CC			Sky		
START	0900	650	0-2	0	clear\	patchy	overcast	drizzie	shower
	1300	210	2-5	- 0	clear	patchy	overcast	drizzle	shower
	1900	/ /	1-3	3	clear	patchy	overcast	drizzle	shower
9 7			* .		clear	patchy	overcast	drizzle	shower
					clear	patchy patchy	overcast overcast	drizzle drizzle	`shower' shower
END					clear	patchy	overcast	drizzie	-
	-site (circle)	: open soils	hilltops, ridges	rock outcr	ops, soil crusts				
						-, -, -,			
		Butterfly	Species				Tally		Total
Behr'	s Met	almark	•						35
i -		White						· ;	5
Dusk	ywing								3
* 62°	on Blu				.et				16
Sava's Oranget'p									4
		skywin							
		WKite							
Ora	mae 51	lfor						÷	
Pale	Swa	llowfail							
(on	mon s	Saty wi	29	. ,			-		3
		• 0				*			
							-	÷	
Neota	r plan	ts;	Phacelia	a brach	4/069		-	. •	
			ny plan;	Tag 50,00					
		L	asthen	a arec	ilis fortiflori sissimum noe				
			Saphalle	im Com	Got flor	n			
		3	ic instru	ins als	1 & C. m.	_			
		ماح کار	1000	1.4100 600	300 m (V p				
		7	endron	a Acaia	10 C Sal 40				
			scholtz	is Co	1. Lunion				
	<u> </u>		DANGE IN	15 The	nosad 1	Love		·	
			itus chi	'an luc	Je our II.	14-1			
			ancolir	dictor	penduli s			- ma	
		1-1	msioav	an an	11-2				
			ALA C	All and	/219				
			engia	Janao	600-10		•		

Page 1 of 2

MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
MMCHOL	HOST PLANT PT	50 plants Collinsia
02	17	40 plants "
03	٠,	50 plants "
04	. 11	50 plants "
05	11	1 plant "
MMDEPSOI	Sensitueplant ot	Delphinium parishii subglobasum loplants
02)	1. 20 play tr
03	l)	25
oy	4	15
05	tı	12
05	1,	20
07	l i	100
08	(1)	50.
09	. 14	25
10	(1)	50
[1]	17	50
/2	11	a 25
MM6EVI01	t e	Geraca viscids 10 plants
02	14	3 '
03	14	11 /0
MMLASPOI	V	latingrus solenders I vine
MMLIBEDI	ìr	Linanthus bellus 50 plants
NIMABER		
MMASDPOI	* 1	Astragalus dou glasii parstrictus 2 plants
MMASPO2	16	1 plant
	•	
TOTAL NUMI	BER OF QCB DE	TECTED: 1NDIVIDUALS

Page 2 of ~

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Recorder:_	Dale	Pow	<u> </u>	Person:			Date: _	5/12	10
Project:	Campo	Wind Energy	y Project	Map #: _		7	Survey Sxi	n: <u>Camp</u>	6 D
GPS Unit :		6			QCB Proto	ocol Survey#		of	5 .
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC		· · · · · · · · · · · · · · · · · · ·	Sky		
START	915	G70	4/6		clear	patchy	overcast	drizzle	shower
	67.11	710	5/8	0	Clean	patchy	overcast	drizzle	shower
	1340	750	417	(5)	clear	patchy	overcast	drizzle	shower
	16 00)	720	6/8	8	Ciea	patchy	overcast	drizzle	shower
	, , ,		*/ '		clear	· · · · · ·	overcast	drizzle	shower
	:				clear		overcast	drizzle	shower
END					clear		overcast	drizzle	shower
	-site (circle)	open soils.	hilltops ridges	rock outer		usts, clay soils			
	0.10 (0.10.0)	· Spanie,		2.00.00.00.	opo, <u>ea </u>		Color tours		
	, .	Butterfly	/ Species		a.		Tally		Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
	¥**	Evadium
·		lavia
		Lasthenia
		Casasthus
		Acaris
		Estrameria
		Dick of stema
	. /	Evertantha
		Playso bothyrs
		Descusora
	*	Phacelia (2)
		Salvid columbarios
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801	Peint	Colling
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TOTAL NUMI	BER OF QCB DE	ΓECTED: () INDIVIDUALS

Page a of a

Recorder:	Natalie	Brodie	Add'l	Person:	Josh		Date: _	12 May	2010
Project:	Campo	Wind Energ	y Project	Map#:_	4		_ Survey Sx	n:E	>
GPS Unit:	Garn	rin 9			QCB Prot	ocol Surve y #		of	5 .
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC	1		Sky		- 1112
START		670		8	Clea	r patchy	overcast	drizzle	shower
	1220	70°	calin	0	clea		overcast	drizzle	shower
				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	clea		overcast	drizzle	shower
					clea		overcast	drizzle	shower
					clea		overcast	drizzle	shower
					clea	· · · · · · · · · · · · · · · · · · ·	overcast		shower
END	1415	70°	calm/2	d	clea			drizzle	
			hilltops ridge:				overcast	various ne	ctar sources
	(00.7	(Political)	99	o, look outo		doto, olay com	0101000	-LUI)OGO IIO	otor sources
		Butterfly	y Species				Tally		Total
Funer	eal Ds	Kywina				l ilit			4
Sara	orange	kywing tip							i
Benrs	metalm	ark			· · · · · · · · · · · · · · · · · · ·	MIN WIN			23
	· blue						· ·		4
	-					JK JH			10
Propert	ius dusi	ywing							1
(A M	ar ble	1				1			
	Lady					11			2
	Swallo)\ }\			2
	seshell								1
									-1
							· · · · · · · · · · · · · · · · · · ·		
				·					
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POINT/POLYGON TYPE	SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
	ground pink, gold fields papearn flower
	Collinna sp. 15+
	Cordy lanthus 35+, seathered along trail
	Cordylanthus 35+, seathered along trail Antivrhinum cov., 10+ individuals
	Collingia sp. < 10, scattered
	·
-	
	TECTED: SINDIVIDUAL

Page 2 of Z

Recorder	: Natalic	Brodie	Add'I	Person: _>	Josh	- ,	Date: _	12 Ma	y 2010
Project: _	Campo	Wind Energ	y Project	Map #:_	3		Survey Sx	n: B	3
GPS Unit	: Garn	in 9			QCB Prot	ocol Survey #	6	of	5 .
TIME	(24-hour)	Temp (F°):	Wind (avg/max)	% CC		11766	Sky		
START	0900	61°	alm	8	Clea	patchy	overcast	drizzle	shower
-	1010	650	(alm	4	clea	patchy	overcast	drizzle	shower
Shop	1100		ain	6	clea	r patchy	overcast	drizzle	shower
Start	1415	70°	calm	6_	clea	r) patchy	overcast	drizzle	shower
				- 100	clea	r patchy	overcast	drizzle	shower
	1.125		- 7		clea	_	overcast	drizzle	shower
END	1400	171	calm/Z	Ø	clea	r patchy	overcast	drizzle	shower
Habitat O	n-site (circle): open soils,	hilltops, ridge	s, rock outc	rops, soil cr	usts, clay soils	, 6ld roads,	various n	ectar sources
			y Species			2275	Tally		Total
Pellis	metalm	ark				MUMINI			16
Pale	Swallow	tail		14110	3 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	n			2
22	elfin				111111623	1			1
Frhere	al Dusk	WIND			110000	3			1
Sava	orano	re him		36.0		il			2
Sprin	a white	1				411			5 🕏
	in blue					IHTI			6
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		goldfields papearn Flower
NBGHOI		collinsia sp. 20+, sparse scatter
NBCHOZ		Collingia sp. 6 individuals
NB4403		Collingia Sp. 5+
NBCHOL		Collinsia sp. 10+ scattered
18002		Cordylanthus, 20+ on wad edge
16CHO7		Collinsia sp. 35+
TO CITO		
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	 BER OF QCB DE	TECTED:

Page <u>2</u> of <u>2</u>

Recorder:	Natalic	. Brud	Add'I	Person:	Josh		Date: _	12 May	2010
			y Project					·	
GPS Unit:	Garm	iin 9			_ QCB Prote	ocol Survey #	5	of	5 .
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	1445	710	2/5	Ø	çlea	nr patchy	overcast	drizzle	shower
			·		clea	er patchy	overcast	drizzle	shower
			<u> </u>		clea	r patchy	overcast	drizzle	shower
					clea	· · · · · · · · · · · · · · · · · · ·	overcast	drizzle	shower
	ļ	-		<u> </u>	clea	·	overcast	drizzie	shower
		1 75 5			clear		overcast	drizzle	shower
END		690		(S)	clear	r) patchy	overcast	drizzle	shower
Habitat On	-site (circle)	: open solls,	hilltops, ridges	3, rock outc	rops, soil cr	usts, clay soil	s, old roads,	various ne	ctar sources
		Butterfly	y Species				Tally		Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
	·	gold helds, poporn flower, ground pink
		5
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		·.
TOTAL NUM	BER OF QCB DE	TECTED: INDIVIDUALS

Page 2 of 2

Recorder	Viviana	Marin	ez-Walled	Person:	ohn	Date:	5/12	lia
Proiect:	Campo	Wind Ener	av Proiect	Man #	6 and 19			
					QCB Protocol Survey			5
TIME	(24-hour)	Temp (F°):	Wind (avg/max)	% CC		Sky		
START	10:45	71.4		d	clear patchy	overcast	drizzle	shower
	1/2///-	0. 2	1////	/	clear patchy	overcast	drizzle	shower
	12:40	26,3	1.6/4.6	$-\varphi$	clear patchy	overcast	drizzle	shower
	14:00	75.8	2,1/5,4	Ø	clear patchy	overcast	drizzle	shower
HET TANKS	17.00	70,0	8,175.7	0	clear patchy	overcast	- drizzle	shower
END	15:20	705	2.8/4.6	0		overcast	drizzle	shower
	n-site (circle)	open soils	chilltops ridges		rops) soil crusts, clay so	overcast	drizzle	shower
	., ()	epon com	, magac	,,con outo	opo, con cracio, ciay co	io oid road	Various	cotal sources
		Butterf	ly Species			Tally		Total
7	uneral	Dusky 6	Jura		//			2
	ara's 0	- I			THE	700		5
		Blue.	P		200	W TH	1	15
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	ady sp)						/
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	200000			Company Control				
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
VMCHOI	Collinsia heteros helle	5 plants
VMCHOZ	Collersia heterophylle	= 15 plants
VMCHO3	vi /r	100 plants
VMBJOL	Black trailed Jackraph	t one seen here
VMBJ02	11	two seen here
V / Y OU LE		Crystastha Sp.
		Cryptantha sp. Gold fields
		wooly blue curls
		chia
		Ground Perk
		hrance typ.
		perstemon sp.
		Spotted towhere
		Palyome towhere
		Blackchinned sparrow
		Raven
		California Throsher
		Scrib jay humminghood sp
		red-tailed hawk
		Lazuli Burting
		Lark Sparow
		l ,
		Horned Larks Tarkey valture
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TOTAL NIIM	BER OF OCR DE	TECTED: Ø INDIVIDUAL

Page 2__ of 2__

area surveyed is marked on map 19M

	11.			Field D	ata Sheet				1	
Recorder:	VIVIan	eMag	UEZ Add'I	Person: <u>〔</u>	John		Date:	5/12/1	0	
Project:	Campo	ں Wind Energ	y Project	Map #: _	19		_ Survey S	cn: 0 +	p & did	N
GPS Unit	Garn	nui la	2		QCB Protoc	col Survey #		of		u
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC		-	Sky			٦
START	8:35	65,3	0.5/1,2	Ø	clear	patchy	overcast	drizzle	shower	
				· ,	clear	patchy	overcast	drizzie	shower	_
	9:45	69,50	22/28	Ø	clear	patchy	overcast	drizzle	shower	\dashv
					clear	patchy	overcast	drizzle	shower	\dashv
					clear	patchy	overcast	drizzle	shower	\dashv
	in crim	7, 20	23/54	1	clear	patchy	overcast	drizzle	shower	\dashv
END	10:95	ک <i>ہ 6ا</i>	2.3/5.4 hilltops, ridges	y rook outo	clear)	patchy	overcast	drizzle	shower	_
парна Оп	-site (circle)	. open sons,	, miliops, nuges	s, rock outc	rops, son crus	sis, clay son	s, olu roaus	, various ne	ciai sources	
		Butterfl	y Species				Tally		Total	٦
	Roman.	Blue				1-4	+ 11		7	٦
	Marine	\sim				F	/		/	
			lmark			74	1 11		7	7
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		american Crow
		Cryptanthe Sp.
		endum so
		Calyonne du ail Somb joig Coyote Scat
		Scrub joing
-		Coyote Scat
		Chia
		Californie Towhee Lesser Goldfineh
		Californie Towhee
		Lesser Gold Fineh
		Mourning Dove
		Lupine sp. Annual Lokus House Linch
		Annual Lokus
		House finch
		· ·
	BER OF QCB DE	TECTED: INDIVIDUAL

Page <u>2</u> of <u>2</u>

				r lelu D	ata Sileet				
Recorder:	BRI	AN Lohs	Troly Add'I	Person:	Philip		Date: _	5/1	2/10
Project:	Campo	Wind Energ	y Project	Map #: _	21		Survey Sx	n: <u>//</u>	,
GPS Unit	Gras	MIN [QCB Proto	ocol Survey#	5	of	5 .
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% cc			Sky		
START	1330	76	7-7	0	clea	patchy	overcast	drizzle	shower
	1430	74	Ž~\$	0	(lea) patchy	overcast	drizzle	shower
		,	J /		clear		overcast	drizzle	shower
					clear		overcast	drizzle	shower
					clear		overcast	drizzle	shower
					clear		overcast	drizzle	shower
END	1530	73	3-17	0	lear		overcast	drizzle	shower
				s, rock outc		usts, clay soils			
	()	, , ,	, , , , , , , , , , , , , , , , , , ,	-,		, ,	,,		
		Butterfi	y Species			:	Tally		Total
Dante	1 .0.								1
Tracin 14	lavo	4 .							4
2007									
Ov	5)44 WI	ind SA							
Aci	man h	11/4							5
1		Sulah							
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
BLCHOS	host plant patch	300 + ind
BLCHO9	ો	300 + ind
		Lego
		BCSA
		Bewe
		BCSP
		Webli
-		Bush
		WBNH
		Lago
		2 bee swarms
	·	Nector sources: Cry Ptentha Dichlostemma
		botes soprios sorganis Phacelia distans.
		Domi cheanoits SAD encameria
	·	Emmeronthe, Eno phyllum wallacki
		ailia SAP, chia Paintboash Mynulus Aug
		Denturin Minutes bagginger Scraph col
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	BER OF QCB DE	TECTED: DINDIVIDUALS

Page 2 of 2

Recorder:	Brian	Lohstr	2/1_Add'I	Person:	Philip		Date:	5/12	110
Project:	Campo	Wind Energ	y Project	Map#:_	20		_ Survey S	xn:	
GPS Unit: Garwin 1						ocol Survey #		of	<u>5</u> .
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	0845	63	0-1	0	clea	patchy	overcast	drizzle	shower
	1210	74	0-3	0	clea	r patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
					clea		overcast	drizzle	shower
	150		0 / 1	- R	clear		overcast	drizzle	shower
END	1300	79	0-4	0	clea		overcast	drizzle	shower
Habitat On	-site (circle)	: open solls,	hilltops, ridges	s, rock outci	rops, son cr	usts, clay soll	s, old roads	, various ne	ectar sources
		Butterfly	y Species				Tally		Total
130115	Metal	Wark			•		38		58
David	70 1	l							2
Arian	Also	4							3
Durk	u wind								5,
Colan	hairs.	4.00.1							1
NI	//						-		i
Fall.	Sivallo	1 4		/					
sara		yetop							6
Hart	brold '	Sulph	er						
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
BLCHOI	host plant patdy	100+ individuals
BLC1+02		30+ "
BLCHO3		40 4 "
13LCH04		500+ 11
BLCH05		500+ 11
BLCH06		100+ 1
BICHO 7		100+ 1
BICH OM		700 A 1 47
BUCHBEI		4064/W/
BLHLOI	horred Lizard	4
BLHL02	· iq	1 0
		BCSP ACWD BUSH
		CALT SCTA BEWR
		CORA SPTO Wren
		RTHA RHGR
		Conste + Pup + den
		cottontail CA ground squirel
		Nectal sources: Chearactis spo cryptanita
	, , , , , , , , , , , , , , , , , , , ,	Delphinium Loty Strigger, Gilia SPP
		lasthenia Lineuthy bellus graitly
		hopino SAP, Lapia, Seneiro Cal Lotos
		agrophy los
		37
TOTAL NUM	BER OF QCB DE	TECTED: Ø INDIVIDUALS

Page 2 of 2

Recorder:	Mike	COUFFER	Add'l	Person:	NONE		Date:	12 Ma	<u>4, 2010</u>
Project:	Campo	Wind Energ	y Project	Map #: _	VILE 1	<u>ル</u>	Survey Sx	on: <u>CAM (</u>	20 - C
GPS Unit	GAW	nin 3			QCB Proto	ocol Survey#	5	of	5
TIME (24-hour)	Temp (F°):	Wind (avg/max)	% cc			Sky		
START	0845	05	Ø	CLEAR	clea	patchy	overcast	drizzle	shower
	0857	67	Ø->1m9H	CLEAR	clea	patchy	overcast	drizzle	shower
			_		clea	r patchy	overcast	drizzle	shower
	1400	72	3->5 MPH		clea	patchy	overcast	drizzle	shower
	1500	73	3->11 MPH	CLEAR	clea	patchy	overcast	drizzle	shower
					clea	·	overcast	drizzle	shower
END	nite (nirola)	Anon coile	<u> </u> hilltops, ridge:	rook outo	clear		overcast	drizzie	shower
Habitat Or	i-site (circle)	open sons,	milliops, ridge	s, rock outc	rops, son cr	usis, ciay solis	Old Toads	various nec	ital sources
		Butterfi	y Species				Tally		Total
BEHO	S META	IMAOK	<u> </u>			IN FIELD	NOTEBO	OK	76
	ORNIA						11		1
l	HERN B						11	· · · · · · · · · · · · · · · · · · ·	1
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
MCHL31	Point	Juyenice
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TOTAL NUM	BER OF QCB DET	TECTED: INDIVIDUALS

Page <u></u> of <u></u>

Recorder:_	Mike	COUFFE	1.ppv <u> </u>	Person:	NONE		Date: _	12 MA	7, 2010
Project:	Campo	Wind Energ	y Project	Map #: _	TILE IL	120	_ Survey Sx	n: CAMP	0-E
GPS Unit :	_GA	<u>กที่พ</u>	3		QCB Proto	ocol Survey#	. 5	of	5 .
TIME /2	/ hour)	Tomp (E°):	Wind	% CC			Sky	•	
START	4-hour) 0900	Temp (F°):	(avg/max)	CLEAR	clear	patchy	overcast	drizzle	shower
·	1000	7/	Ø - 2 men	CLEAR	(clear		overcast	drizzle	shower
	1100	72	1->4 MPH	CLEAR_	clear	~	overcast	drizzle	shower
	12.00	74	1-> 3 MOH	CLEAR	clear		overcast	drizzle	shower
	1300	73	1->4 MPH	CLEAR	clear	patchy	overcast	drizzle	shower
	1345	ママ	3-25 MPH	CLEAR	clear	patchy	overcast	drizzle	shower
END					clear	patchy	overcast	drizzle	shower
Habitat On	-site (circle)	: Opèn sois	hilltops, ridge	rock outc	rops, soil cru	ısts, clay soil	ls, old roads	various ne	ctar sources
		Butterfl	y Species				Tally		Total
BEHRS	METALM	IARK				IN FIE	O NOTER	2012	60
	CRANGE	•					11		7.
_	BUE					* 1			28
		rywing-				Ц			3
	N AINS					1(1
Sprin	16- WHITE	Ē				R.			9
		OHIWYTO				4.4			4
		JALLOWTA					1		
		ADY					1		
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141 00 00 00	^	SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
NUMBEREO	POINTS REPRESEN	T COLLINSIA SP. LOCATIONS.
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TOTAL NILIMI	BER OF QCB DE	TECTED: INDIVIDUALS

Page <u>2</u> of <u>2</u>

Quino Checkerspot Butterfly Protocol Survey

			Quino one		ata Sheet	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	oi oui vey			
Recorder:_	DK. FAU	ikner	Add'l	Person:	BO Date: 13 Huy 2			2610		
Project:	Campo	Wind Energy	/ Project	Map #: _	14			Survey Sx	(n; <u>C</u> AN	100 K
GPS Unit :	#6				QCB Prot	ocol	Survey#_	6	of	5 .
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC				Sky		·
START	1300	79	4	Ø	clea	<u> </u>	patchy	overcast	drizzle	shower
	350	79	4	10	clea		patchy	overcast	drizzle	shower
	1460	17	4	10	Clea		patchy	overcast	drizzle	shower
	1500	76	7	\$	clea	<u></u>	patchy	overcast	drizzle	shower
					clea	r	patchy	overcast	drizzle	shower
					clea	r	patchy	overcast	drizzle	shower
END	1600	76	5	Ø	Clea		patchy	overcast	drizzle	shower
Habitat On	Habitat On-site (circle): epen soils, various rectarsources									
		Butterfly	/ Species					Tally		Total
P. eur	umedon									5
A. Vin	7. A+i									q
P. Ac	mon									16
A. S.	tra .			•						(
V. CA	mdei.									2
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
414	8	
	9-10	Antirolymum.
		nector: Blue docks
		nector: Blue docks. Cryptath Goldfields
		Goldfields
		Gallensia Gallow ymrow deer weed
		gellow ymrow
h. 1960		deer weed
TOTAL NUMI	BER OF QCB DET	TECTED: INDIVIDUALS

Recorder:	DK. FAUI	KNER	Add'l	Person:	130			Date:	13M4	2010
Project:	Campo	Wind Energy	y Project	Map #: _	15			Survey S	xn: <u>Cam</u>	PO K
GPS Unit	#6				QCB Prot	ocol	Survey#	6	of	5
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC				Sky		
START	0900	68	· ·	Ø	Clea	<u>D</u>	patchy	overcast	drizzle	shower
	1000	7-5	1	Ø Ø	Clea		patchy	overcast	drizzle	shower
	iloo	76	Ø	Ø	clea	ar	patchy	overcast	drizzle	shower
				<u> </u>	clea	ır	patchy	overcast	drizzle	shower
					clea	er	patchy	overcast	drizzle	shower
					clea		patchy	overcast	drizzle	shower
END	1300	79	4	d	(ea		patchy	overcast	drizzle	shower
Habitat Or	ı-site (circle)	epen soils	filltops, (idge	s rock outc	rops? soil ci	rusts	s, clay soils	, ⊘ Id roads	>various <u>dr</u>	ctansources
		Butterfly	/ Species					Tally		Total
Enymi	is form	2î/A								3
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1 20	2-1									1
F. Di.	mede	и								2
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P. Pr	otodice.									
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)							
15 K	Mrk 1-3	Antirohymen > Red laure hets							
	Mrk 4-7	Antirohymen > Patential Collensia > QCB laux hosts							
		nector: Described							
		Constante							
		Blue decks.							
		Mectar: Decrused Cryptante Blue decks. Collegia							
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TOTAL NUMI	BER OF QCB DET	TECTED: Ø INDIVIDUALS							

Recorder:	Margi	e Mullia	999Add'l	Person:				Date:	\$5.1	3.2010
Project:	Compo	₩ind Energ	y Project	Map #: _	1-J			Survey Sx	kn:	
GPS Unit : QCB Protocol Survey # of 5									5 .	
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)				Sky			
START	0700	47	2-5	1%	clear	7	patchy	overcast	drizzle	shower
	1115	78	0-4	100/0	clear	<u> </u>	patchy	overcast	drizzle	shower
	1515	79	3-6(8)	15%	clear	<u></u>	patchy	overcast	drizzle	shower
					clear		patchy	overcast	drizzle	shower
					clear		patchy	overcast ·	drizzle	shower
					clear		patchy	overcast	drizzle	shower
END					clear		patchy	overcast	drizzle	_shower
Habitat On	-site (circle)	: open soils	hilltops ridges	rock outcr	ops, soil cru	ists,	clay soils	, old roads,	various ne	ctar sources
		-	/ Species					Tally		Total
	on Blue	,								55
	's Oran				-					5
West	ern tai	Ted-BI.	باه ا							
Pale	Swallow	Hall								12
	's Meta									72
Gabb	's Check	Lerspot								3
Pain	ted Lad	7								3
Brow	in Ofin	n n								1
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DUSE	ey wing	.0								3
Chec	Pered 1	white						•		3
	1 Hairst									<u> </u>
60vc	jun Coppe		~~~						<u> </u>	İ
5014	5~ 11(Hartho	rd's?)							
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST
MMSTCAOL	sensitive plant pt	streptanthus campestris
MMSTCAOL	1	2 plants
03		11 10 plant
04		11 Splant
05		11 10 plant
06		11 I plant
07		11 loplants
MMHLOI	soushelmand pt	Horn Lizard
MMA COI	Host plant pt	Antirchinum oulterianum 10 plants
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				1 icia D			*			
Recorder:	Natalio	Brodie	Add'l	Person:F	milip.		Date:	13 May	2010	
Project:	Project: Campo Wind Energy Project Mar						Survey Sxn: A			
GPS Unit :	Gari	min 9			QCB Proto	ocol Survey#	<u> </u>	of	5 .	
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky			
START	1230	72°	4/8	10-20-1	Clea	patchy	overcast	drizzle	shower	
	1330	740	2/8	10-20%	clea) patchy	overcast	drizzle	shower	
			,		clea		overcast	drizzle	shower	
					clea		overcast	drizzle	shower	
				1	clea		overcast	drizzle	shower	
			- / .	-	clea		overcast	drizzle	shower	
END	1600	70	3/6	10-20/2	clea	patchy	overcast	drizzle	shower	
Habitat Or	-site (circle)); open soils,	hilltops, ridge	es, rock outo	rops, son cr	usis, clay soli	s, oiu ioaus	, various n	ectal sources	
		Butterfi	y Species				Tally		Total	
Benvis	metaly	nark				MINKIMI	KIK I		37	
			-			JKI(5	
Sara	ovande	tris				1				
	J	ie				JAN JAN 1			. 10	
						1			1	
						11			2 2	
-	i elfin					<u>u</u>				
		vtail				11	····		.2	
		VY.				1			1	
Pain	ted la	dy				1			2	
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINT SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
NBARO1		Antirrhinum 10+
NBARO2	,	Antivrhinum 5+
NBARO3	_	Antirrhinum 25+
JBARO4		Antirrhinum 20+
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		and the second s

Page 2 of 2

Recorder:_	B. Lol	hstrah	Add'l	Person:	John	Escar	<u>})</u> Date: _	5/13/1	<u>'o</u>
Project:	Campo	Wind Energ	y Project	Map #: _	17,18,	19	_ Survey Sx	n:	
	1_				QCB Protoc	ol Survey #	6	of	5
		Temp (F°):	Wind (avg/max)	% CC			Sky		
TIME (2		74°F	0-1	0	Clear	patchy	overcast	drizzle	shower
SIAKI	1200	78	3-5		Thin clear	patchy	overcast	drizzle	shower
	1300	80			Hun clear	pato hy_	overcast	drizzle	shower
	1400	81	0-3	30	Thin clear	pateny	overcast	drizzie	shower
	4.				clear	patchy	overcast	drizzle	shower
	2				clear	patchy	overcast	drizzle	shower
END	1530	82	0-9	10	This clear	patchy	overcast	drizzle	shower
Habitat Or	n-site (circle): open soils	, hilltops, fidg	es, rock out	crops, soil crus	sts, clay soi	is, old roads,	(Various ne	ectar sources
						·····	Tally		Total
		Buttern	ly Species	<u></u>					13
	n blue							, , , , , , , , , , , , , , , , , , ,	23
Beurs	the Pet 1	Now (c							2
perpl	- King h	airs frea	اد						H
Pale	Swaller	1tail							3
Sara	Ola	nge tip	- 			·	<u> </u>		7
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COM	non s	ootywin	d				·····		1
Car	hern 1	NIVE.	9					· ·	
المراج	+ Cardy	Su(phe	en e						
Dai	400 1	. l .	- 1						<u> </u>
PAIN	+ (0	idy it bad	:						
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
BLHLOI	Point	Horned Lizard adult sunning on Branch
BLHLOZ	1,1	Abut Harred Lizard
BLCHOI	MASS Host Dant paid	Colinsia Petch 100 + Individuals
3LCH02	<u>t</u>	11 300+ 11
13LCH03	· · · · · · · · · · · · · · · · · · ·	11 / 1000 + 11
BLUHOH	14	((/00+ 1)
BLCHOS	, 1	(1 100+ ,1
		SCIE BHGR WREN BEWR WEBB BGGN
		SPTO BTSP CALT RTHA COHU Welci
		HOFI CAQU
		W. Whiptail coard horned heard, where his
		5. Parific Rattle s Note, CA Tool (dead)
		Cotton tail, CA ground squirel
		Nectar Sources:
		Endium, Lopinus, pentlemons, corptantha,
	:	Cammissania + 11chostema Bluedicks,
		Eriophyllum convertiforum, chia Gilia spp,
		Lotus SPP minulus braviper, Princushians
	4 - Jan 19 - 19 - 19 - 19 - 19 - 19 - 19 - 19	Senacio CALifornia Laptosiphon Sp.
		Section Outprinte Pepis Signer Up.
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	BER OF QCB DE	TECTED: か INDIVIDUAL

Recorder:_	B. Lohs	moli	Add'l	Person:	John	Esc	iort)	Date:	5/13/1	10
Project:	Campo	Wind Energy	y Project	Map #: _	2			_ Survey Sx	kn: <u>~</u>	
GPS Unit :							Survey#		of	5 .
	4-hour)	Temp (F°):	Wind (avg/max)	% cc				Sky		
START	0850	69	0-1	0	-	clea	patchy	overcast	drizzle	shower
						clear	patchy	overcast	drizzle	shower
			* *	<u> </u>		clear	patchy	overcast	drizzle	shower
						clear	patchy	overcast	drizzle	shower
		-		,	-	clear	patchy	overcast	drizzle	shower
		7005	<u></u>			clear	patchy	overcast	drizzie	shower
END	0930	72°F	0-1	0		(lear)	patchy	overcast	drizzle	shower
Habitat On	-sité (circle)	: open soils,	hilltops ridge	s, rock outer	rops, soi	Crusts	s, clay soils	s, old roads,	, va lious ne	ctar sources
	3	<u> </u>	- 0	·	<u> </u>	.		Tally		Total
A 5 /	- A ,	Butterny	/ Species					Tally		Total
Paint	ed lo	dr				\perp				<u> </u>
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		BewR
		Scja
		BCSP
		WAVi
		cotton tail, coyote trak
		Side-blotched Lizard
	·	W. Fence Lizard
		Nectar sources: Eriophyllum wallacei,
		Cryptantha, Erodium, Lupinus concinus
		Cammissonia
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TOTAL NUM	BER OF QCB DE	TECTED: $ ag{\phi}$ INDIVIDUALS

Page <u>2</u> of <u>2</u>

Project: Campo Wind Energy Project: Map #: 13 Survey Sxn: F GPS Unit: Granin 9 QCB Protocol Survey # 5 of 5 TIME (24-hour) Temp (F): (avg/max) % CC Sty START OCS Q C CAN S O Gear patchy overcast drizze shower olear patchy overcast drizze shower olear patchy overcast drizze shower olear patchy overcast drizze shower olear patchy overcast drizze shower olear patchy overcast drizze shower olear patchy overcast drizze shower olear patchy overcast drizze shower olear patchy overcast drizze shower patchy overcast drizze shower olear patchy overcast drizze shower patchy ove	Recorder:	Natalie	Brodie	Add'l	Person:F	Phillip		Date:	13 May	2010
Company Comp										
TIME (24-hour) START										
START 0860 (00° cam & clear patchy overcast drizzle shower loan patchy overcast drizzle shower clear patchy overcast drizz	TIME (2	24-hour)	Temp (F°):		% CC			Sky		
1015 65° caim Clear patchy overcast drizzle shower clear patchy overcast drizzle shower			1			clear	patchy	overcast	drizzle	shower
Clear patchy overcast drizzle shower Clear patchy ove	O / Aiti					clea	patchy	overcast	drizzle	shower
Clear patchy overcast drizzle shower Clear patchy ove						clear	r patchy	overcast	drizzle	shower
Clear patchy overcast drizzle shower						clea	r patchy	overcast	drizzie	shower
END 1145 107 2/6 107. Clear patchy overcast drizzle shower Habitat On-site (circle): open soils, hilltops, ridges, rock outcrops, soil crusts, clay soils, old roads, various nectar sources Butterfly Species Tally Total Behrs metal wark Funeveal Wisky wing Acmen blue Painted lady Spring white Ripperhus Diskywing Sarn orange hp 1 1 1 1 1 1 1 1 1 1 1 1 1						clear	r patchy	overcast	drizzle	shower
Habitat On-site (circle): open soils, hilltops, ridges, rock outcrops, soil crusts, clay soils, old roads, various nectar sources Butterfly Species						clea	r patchy	overcast	drizzle	shower
Habitat On-site (circle): open soils, hilltops, ridges, rock outcrops, soil crusts, clay soils, old roads, various nectar sources Butterfly Species	END	1145	600	2/6						
Behrs metalmark Funereal Duskyming Atomon blue Painted lady Spring white Ropperhus Duskyming Sara orangetip I I I	Habitat On	-site (circle): open soils,	hilltops, ridges	s, rock outc	rops, soil cr	usts, clay soils	s, old roads	, various ne	ctar sources
Tunereal Duskyning Atomon blue Painted lady Spring white Ropertius Duskyning Sava orangetip III 3 1 III 3 Third Painted lady III III III III III III III			Butterfly	/ Species				Tally		Total
Funereal Diskyning Atmon blue Painted lady Spring white Roperhus Diskywing Sara orangetip III III 7 III III III III III	Benve	innetalyno	15K				IN THE DATE HIS	THE HE WAY	l was in	54
Painted lady Spring white Properties Deskywing Sava orangetip 1							l .			3
Painted lady Spring white I Ropertius Duskywing I Sara orangetip I I	ATION	a blue	7 22179				1471			7
Spring white Roperhus Duskywing Sava orangetip 1	1 '					· · · · · · · · · · · · · · · · · · ·	1			1
Rispertius Duskywing Sava orangetip 1							í			1
						·	1			1
	Same	010-11-1-1	- juliug				1			j
	Java C) ravage ;	3/2	······································						
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINT SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		goldfields, poporn flower ailia ap, tidy tips
		groundpink
NBGHOI		Collinson Sp. 250
NBCHUZ		Collinsia sp. ~30 individuals
NBCH03		Collinsia sp. ~30
NBCODI		Cordylanthus 35-40
NBCHO4.		Collingia Sp. ~30
NBHLOI		Horned lizard
		- 1
		· · · · · · · · · · · · · · · · · · ·
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Page 2 of 2

Recorder:_	D. 10	Paris]] Add'i	Person	Makin Managa	MAHAMAN STATE	LCT Date:	5/14	lio
	Campo		· ·		. 4	6			L/M/L
		(A:	7 1 10 000						
GPS Unit:					_ QCB Prote	ocol Survey #	<u>and</u>	<u>ソ</u> of	<u>5</u> .
TIME (24	1-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	1325	350	46	0	clea	patch	overcast	drizzle	shower
	(535	800	517	5%	clea) patchy	overcast	drizzle	shower
	\$ 30	75	69	10%	clea	r patchy	overcast	drizzle	shower
	1600	70	45	5%	clea	patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
END			1 *124 * 1		clea		overcast	drizzle	shower
Habitat On-	site (circle):	open soils,	nilitops, riage	s, rock outo	crops, soil cr	usts, clay soil	s, old roads,	various nec	tar sources
		Butterfly	Species				Tally		Tota!
Jaras	<u> 012m</u>	T.0				WT 111			8
Behrs	11	un or K			14	141 140	HI HI HH	HT HIT	38
	1 Blue			•		HT MA	à ·	,,	11
7 1.	Ĉ,	- Marie (f			:	WAT WH	411		13
•	ute?			100		nt		11.81	3
	51	1,11				itt 111			13.
	a Just	13K.	my	Andrew Control	ed en skupping de la 1970 L	11.11	and the second second second second		4
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1.6	ange!	1 P :		·		1/		•	2
	Maris S	will w				- []			
	Myenn !	Blue							<u> </u>
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST
		tayia
		Los Thenia
		Plasa bathys
		Constantha
		President
		Delah
		Eschschalzia
		Salvia columbonal
		Charnati
		(Veiom.
		Phacelia
		1 WELLEWA
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		· · · · · · · · · · · · · · · · · · ·
0.46	Point	
006	town	Callinsia
0025	HC H	II.
0023		
Disk ~ D	N 5	
)PH602	Point	San Diego Horned Lizard
02	1(
- CO	· · · · · · · · · · · · · · · · · · ·	

Page 2 of 2

Recorder:	Mike C	OUFFER)	Add'l	Person:	None		Date:	14 may.	2010
Project:	Campo	Wind Energ	y Project	Map #: _	MAP TILE	19	_ Survey S	kn: <u>CAM</u>	0-N
GPS Unit :	<u>GARN</u>	S Min		· · ·	QCB Proto	ocol Survey#	6	of	5 .
TIME (2	(4-hour)	Temp (F°):	Wind (avg/max)	% CC		·	Sky		
START	1030	77	SY->3 MPH	CLEAR	clear	patchy	overcast	drizzle	shower
	1100	78	Ø->5 MPH	CLEAR	clear	patchy	overcast	drizzle	shower
	1500	80	Ø+3mph	CLEAR	clear	patchy	overcast	drizzle	shower
	1230	79	Ø->3 mpH	CEAR	clear	patchy	overcast	drizzle	shower
	•				clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizz!e	shower
END					clear		overcast	drizzle	shower
Habitat On	-site (circle)	pen soils	hilltops ridges	rock outc	<u>rop</u> s, soil cri	usts, clay soils	s, Old roads	various ne	ctar sources
		Butterfl	y Species				Tally		Total
ACIMA	N BLUE					IN FIELD	NOTERA	OK.	3
^		MARK					11		50
						· tç			4
RED A	DMIRAL	3.600				t (-			1
		RSTREAK_				ų,			3
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
Mcwwo6	Point	
MCLA09	POINT	
COLLINSIA SP.	MARKED AS NUMBE	REO POINTS IN GARMIN MEMORY . WHERE POINTS
CREATE CIRCU	LAR POLYGONS THA	T END AT THE SAME START POINT, THIS REPRESENTS
A PATCH OF CO	LINSIA WITHIN THE	CIRCLE.
A.A.		
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· · · · · · · · · · · · · · · · · · ·		
		· ·
TOTAL NUMI	BER OF QCB DET	TECTED: INDIVIDUALS

Page <u>2</u> of <u>2</u>

			Quino Chec		utterfly Pro ata Sheet	tocol Survey	•		
Recorder:	Mike	COUFFE	<u>- Add'l</u>	Person:	NONE		Date: _	14 May	<u>, 2010</u>
	Project: Campo Wind Energy Project Map #: 🦷 🖺 💍							_	
GPS Unit	GAR	nin.3		· .	QCB Proto	ocol Survey#	<u> </u>	of	5
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	1330	74	Ø>5 MPH		Clea	r patchy	overcast	drizzle	shower
	1400	73	Ø->3 MPH		clea		overcast	drizzle	shower
,	1500	75	Ø->3 MPH		clea	r patchy	overcast	drizzle	shower
	1600	75	Ø-> 1 MPH	1	clea	patchy	overcast	drizzle	shower
	1621	77	Ø->2 MPH	20%	clea	r) patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
END					clea		overcast	drizzle	shower
Habitat On	ı-site (circle)	open sorts	hilltope ridges	Prock outc	rops soil cr	usts, clay soil	old roads	various ned	ctar sources
						1			T - 2 -
Λ.			y Species			Tally			Total
Hamo	N BLUE					IN FIELD NOTEBOOK			11
FUNER	EAL DUSH	sywing-				11			6
						IX.			4
	S METAL					l c			49
l _						11			16
	EO LAD	-				EV.			4
	COAST	/)			L),			1
•	HAÎRST	()	-			. 11			1
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SPRIN	6 WHITE	3					nt		1
SOUTI	HERN BU	UE_					H		9
1.10									
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
MCHL33	POINT	JUVENILE
MCHL 34	Point	AOULT
	-	
COLLINSIA SP. F	LANTS MARKED AS	NUMBERED POINTS IN GARMIN MEMORY. WHERE
		THIS REPRESENTS A PATCH OF COLLINSIA WITHIN THE CIRCLE.
•	·	
-		
TOTAL NUM	BER OF QCB DET	TECTED: INDIVIDUALS

Page $\overline{\mathcal{Z}}$ of $\overline{\mathcal{Z}}$

Recorder:	Mike	COUFFER	Add'l	Person:	NONE		Date:	14 MA	y, 2010
Project: _	Campo	Wind Energ	y Project	Map#:	TILE 1	9	_ Survey Sx	m: <u>CAM</u>	190-P
GPS Unit	: GAR	E nin		- 11 -	_ QCB Proto	col Survey#	6	of	5 .
TIME (24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky	Vanc.	
START	0851		Ø->2 MPH	CLEAR	Clear	patchy	overcast	drizzle	shower
- TENNAN	0900	75	0	CLEAR	clear	patchy	overcast	drizzle	shower
	1000	81	Ø->2MPH	CLEAR	clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
			-		clear	patchy	overcast	drizzle	shower
END	100				clear	patchy	overcast	drizzle	shower
Habitat Or	n-site (circle):open soils	Shilltops ridge	spock outo	crops, soil cru	sts, clay soi	s, old roads	various n	ectar sources
	Ã/	Butterf	ly Species				Tally		Total
Acmon	BLUE			2000		ÎN FIELD	Notescok	· ·	7
BEHRS	METALIN	MARK					11,	Carrier	5
FUNER	EAL DUSH	SYWING					M		2
PAINTE	30 LAQU	2				-114	W		1
	ORANGET					189	ц		1
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
MCWWOI	POINT	
MC WW 02	Point	
Mc WW 03	Point	
MC WW04	Point	
MCWW 05	POINT	
NO COLLINSIA	PLANTS WERE OF	BSERVED OR RECORDED IN THIS SURVEY SECTIO
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v.		
	M	
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		TECTED: // INDIVIDUAL
IOTAL NUM	BER OF QCB DET	IECTED. INDIVIDUAL

Page <u>2</u> of <u>2</u>

D	ΛΛαναί	ه المال ا	agh Add'i	Person:			Date: _	5.14.	2010
Recorder:_	To con all	C MOINT	Decinat	Man#:	10, 15, 16	I	Survey Sx	n:	
Project:	Campo	wind Energy	Map.m.	1 - 1 - 1		-		_	
					QCB Protocol	Survey #		of	5
			18/ind		T				
TIME /2	4-hour)	Temp (F°):	(avg/max)	% CC			Sky		
START	0900	700	2-7	0%	clear	patchy	overcast	drizzle	shower
	1215	70°	4-6	100/0	clear	patchy	overcast	drizzle	shower
	1515	790	4-6	20%	clear	patchy	overcast	drizzle	shower shower
					clear	patchy	overcast	drizzle drizzle	shower
				ļ	clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast overcast	drizzle	shower
END				Scools out	crops, soil crusts	patchy	is old roads	various n	
Habitat Or	ı-site (circle) open soils	Militobs Gluge	S) TOCK OUR	5/0pa, (30/1 5/43tt	J-19/07 001			
		Quitarfl	y Species				Tally		Total
	51.		, Opoulus						42
Acm	non Bli								7
Pale	· Swallo	Wtail							4
Sav	ra's Or	angeti;)			 ~			7
50V	ing Ar	rive!	<u> </u>					<u> </u>	1
Byo	NN ELF	^ ゔ゚゚゚゚゚゚゚゚゚゚゙゚゚゚゚゚゙゚゚゚゚゚゚゚゚゚゚゚゚゚゚゚゚゚゚゚゚							
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Nech	ar Plan	ts:						· · · · · · · · · · · · · · · · · · ·	
(lanena	ictis av	femsi ful	19 5 L.	glabruscula				
	alia d	evelandi	i						
1 -	,		ndulifer						
*	moneno	in he pe	haorrice -	1		<u></u>			
	am(35)	onia ca	ifornica						
	eschol-	tza cali	tornica						
	Cryptu	in to 500) • <u> </u>						
	Girin a	apitation	C.				· · · · · · · · · · · · · · · · · · ·		
	Cryptun to spp. Gigin capitation c. Cupinus concinnus L. truncatus & L. bicolor								
	call la	a araid	,						
	01 1/10	stimon	califor	nicus					
	I'IATY.	/ 1 01 0- 11							
1									

MAP/GPS LABEL	POINT/POLYGON TYPE	SPECIES LIST (NECTAR SOURCES, GENERAL WIEDER L LIST)
MMACOI	Host plant pt	Antivhinum coulterianum 8 plants
02	Ve /	10@plants
03	11	3 plants
MMCHOI	Sensitveplantet	Collinsia ancolor 25 plants
. 02	1,	10 plants
03	4	40 plants
04	1	" 100 plants
05	16	11 30 plants
06		20 plants
MODSEE MM	DPSO1	Delphinism Estalabusum
MMDPS02		20 plants
03	. :	25 plants
04		30 plants
05		50 plants
06		100 plants
07		10 plants
08		15 plants
09		20
10		30
		15
12		. 10
13		50
14		20
15		10
MMLBOI		15009/9475
MMSCOI		3 plants
MMSC02		25 plants
MMS(03		5 210975
04		5 plants
05		15 plants
06		10 plants
	BER OF QCB DE	
07		15 plants
08		Page 2 of 2 20 plants
09		5 plants

			Quino Chec	Field D	ata S	heet			ف	
Recorder:	B. Lohs	treat	Add'l	Person:	R	ymon	& (Escal	Date: _	5/14	1/10
1,0001001				Man #	10.	12 16		Survey Sx	in: G	
Project: _	Campo	Wind Energy	/ Project	wap #.	1.7	·-/	<u> </u>			
GPS Unit	:2	2			_ QC	B Protoco	ol Survey #	9	of	5 .
0, 0 0,) 5 / 1 I	т						····
TIME	(24-hour)	Temp (F°):	Wind (avg/max)	% CC				Sky		
START	0850	70	0-4	Q_		clear	patchy	overcast	drizzle	shower
O I A C	1015	75	0-4	0_	_	clear)	patchy	overcast	drizzle	shower
	1140	79	0-7	0	_	Clear	patchy	overcast	drizzle	shower
	1320	76	3-6	20 .	thu .	clear	patchy	overcast	drizzle	shower
	1430	79	3-5	20	thin.	clear	eatchy	overcast	drizzie	shower shower
	16				 	clear	patchy	overcast	drizzle	shower
END	1500	78	0-2	30		clear	patch)	overcast	drizzle various n	
Habitat C	n-site (circle	e): open soils	, hilltops, ridge	s, rock out	crops	, soll crus	its, clay son	s, old Ibaus	, various n	ectar sources
								Tally		Total
			y Species							1.5
Beur	's meta	& werk								18
Armo	n Blue	,	1							3
Pale	Shalla	ns toci (
									_	ア
Sax	a cyan	ge 14	· · · · · · · · · · · · · · · · · · ·							5
		ulfer								3
Pain	ted las	40								2
	cer's w		a							
		_			-					2
105	y wing	on the D	olve							\$2
			SIVE							5
meli	issa b	<u>lve</u>								1
che	ckened	skippe	Y					<u> </u>	· · · · · · · · · · · · · · · · · · ·	
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
BLBBOI	host plant patch	cordylanthus 300+ individuely
BLCHOI	li di di di di di di di di di di di di di	Colinsia concolor 50 + 11
BLCHOZ	i,	100+ 11
BLC(+03	4.	200+ "
BLCH04	•	100+ 1
	Birdy:	BGGN CATH BCSP SPTO NOFL
		BEWR COLT GRPO LASP TUVU
		HOFI SCJA RSHA CORA BHGR
		CAQU Oati
	Herps:	UTST SCOC BUBO-larvae CNTI
	Mammel	: Cottontail Jack Rallbit
	Neutars	: Erodium, Malacotherix SPP, Latthenia
	•	Leptosiphon spp Layia, colinsia, crypantla
	-	Delphinium, Lotus agrophyllus, Amsinkia
	*	Linavithus, Lupinus spp, Phacelia permi, distan
		Gilia SPD, Mustards, hypocaris 966.
		Cammissonia spp, chia, trichostemma,
		Senecio CAL; Eriophyllum convert wollsee
		Circium occilentalis, cheanactis SPP,
		Anisocoma acoulis, Dichlostemma apitatra
		CA DOLLY
	į.	
	,	
TOTAL NUM	BER OF QCB DE	TECTED: Ø INDIVIDUALS

				Field D	ala Sileel					
Recorder:_	O.W.C	K FAUIKA	(ar Add'	Person:	Non	€		Date:	14 M	12010
Project:	Campo	Wind Energ	y Project	Map #: _	ila			Survey S	(n: <u>Ca</u>	H OG
GPS Unit:	#9				QCB Prot	tocol	Survey#	6	of	5 .
TIME (2	4-hour).	Temp (F°):	Wind (avg/max)	% CC				Sky		ort constitute of orest or
START	1300	74	Ø	Ø	Clea	की)	patchy	overcast	drizzle	shower
	1400	75	ч	Ø	etea	ar)	patchy	overcast	drizzle	shower
	1500	77	2	30%	clea	ar	patchy	overcast	drizzle	shower
					clea	аг	patchy	overcast	drizzle	shower
					clea	ar	patchy	overcast	drizzle	shower
					clea	ar	patchy	overcast	drizzle	shower
END	1600	74	2_	50%	clea	ar	(oatchy)	overcast	drizzle	shower
Habitat On-	-site (circle)	: open soils	, hilltops, ridge	S OCK outc	rops, soil c	rusts	s, clay soils	, old roads	, various ณี	ectabsources
		Butterfl	y Species					Tally		Total
P. Ac	Mon	. *								25+
										12
<u> </u>	entice tou	Jana,				+				
15 b	rotodica	2				 				
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)						
16 H	Mark: 19	Collensia						
	20	100's						
	31	Antirohymum 15+						
	22	Collansia						
	23	" + Jewel Flower & Examplestri						
	24	11						
	as	Antorhymun						
	. ಎ.	Antorhymum Collansia 100+						
	·							
TOTAL NUME								

			Quillo Cile		ata Sheet	oi suivey			
Recorder:_	DAVID	K. FAUL	المامير Add'l	Person:	NONE		Date: _	14 74	12010
Project:	Campo	Wind Energy	/ Project	Map #:	(1		Survey Sx	n: <u>ሮ舟</u> ሢ	PO H
GPS Unit :	#9				_ QCB Protoco	ol Survey#	6	of	5
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC	·		Sky		****
START	0360	69	5	Ø	clear	patchy	overcast	drizzle	shower
	1600	74	3	Ø	(cleár)	patchy	overcast	drizzle	shower
	1100	78	2.	Ø	clear	patchy	overcast	drizzle	shower
	C 205	80	5	0	clear	patchy	overcast	drizzle	shower
·				'	clear	patchy	overcast	drizzle	shower
				·	clear	patchy	overcast	drìzzle	shower
END	1300	74	Ø	Ø	Clean	patchy	overcast	drizzle	shower
Habitat On	-site (circle)	: open soils)	dilltopsyridge	s, rock outc	rops, soil crust	s, clay soils	, old roads,	various to	ctapsources
	-		Species				Tally	W.L	Total
A. Vi	aulti.								25*
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P. Ac	mon								25+
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
#11 H	Mark #1	How Lizard (Adult)
	2	How Lizard (Adult)
	3	Collensia 100+
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	5	(C
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	13	cl
	14	10
	is	Condylanthus
	16	Collansia
	17	11 100+
	18	it
		Composites
		Compositos
···		Blue dirks
		Mallored Marrocci
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	<u> </u>	
TOTAL NUM	BER OF QCB DE	TECTED: Ø INDIVIDUALS

Recorder: Vale	Polnell	Add'l	Person:	Mike <	ohn Besti	੫ Date:	114/	10
Project: Campo								3 NO \$
GPS Unit :				₹ ⁶ .	ocol Survey #		,	' '
i		Wind		-41. }}				
TIME (24-hour)	Temp (F°):	(avg/max)	% CC	clea	2	Sky	المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية	_le
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1130	7 0	77/a		gles gles		overcast	drizzle	shower
		- //		clea		overcast	drizzle	shower
				clea		overcast	drizzle	shower
				clea		overcast	drizzle	
END	-			clea	r patchy	overcast	drizzle	shower
Habitat On-site (circle)	epen soils	nilltops ridge	s, rock outc	cps, soil ci	rusts, clay soil	s, eld roads	various nec	tar sources
· · · · · · · · · · · · · · · · · · ·					<u> </u>			
(A A		Species	pro e			Tally		Total
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Pale Sus								Ĭ,
Blue?	- 10001011				14 W x	AÍ		
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST
		Layia
		Lestheria
		Plania batheris
		C & 11
		Cyptantua
		Tentamor
		Pelglamon
		Klassing Eschseholzia
		Sahra colòmboriae
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	BER OF QCB DE	TECTED: O INDIVIDUA

Recorder:	Dave	Fliebe	<u>e√</u> Add'l	Person:	ohn B	ostick	Date:	5-15	- 10
Project:	Project: Campo Wind Energy Project Map #						_ Survey S	xn: <u> </u>	
GPS Unit	GPS Unit:					ocol Survey #	6_	of	<u>5</u> .
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	1250	80	5-8	0	Clea	r) patchy	overcast	drizzle	shower
	12:10				clea	r patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
END			4-6	_5_	çlea		overcast	drizzle	
Habitat Or	-site (circle)	open soils,	Dilltops, ridges	rock outc	rops soil cr	usts, clay soil	s, old roads	various ne	ctar sources
							20.11		
	<u> </u>		y Species			1.	Tally		Total
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Page of 2

MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		Esch (al)
		Lup conk
		crypt int
		Malocatrix
		Plasiobotrus
		- Phacelia imbrigata SSP pata
		(not flowering, but of note)
		Lupinus succ
		Linanthus lemmanni
		Delphinium sp.
		Layia glandulosa
		Jashenia calil
SF6001	DoiN	1 Custillia Reserta
DECHOI	point	10 Collinsia
		91/16 30-
DFCHO3	point	~ 32 Collinsia
DI=4203	Doint	, hoved homed lizard
		·
TOTAL NUME	BER OF QCB DET	ECTED: INDIVIDUALS

Page Z_of Z_

Quino Checkerspot Butterfly Protocol Survey

	Laive	Flieta	2/		ata Sneet	1 .			
Recorder:	AWF	}	Add'l	Person: 🧓	John Bo	stick	, Date: _	5-15	-/0
Project: _	Campo	ر <u>Wind Energy</u>	/ Project	Map #: _	19		Survey Sx	n: <u> </u>	
GPS Unit	:			·	QCB Protocol	Survey#	6	of	5 .
TIME (24-hour)	Temp (F°):	Wind (avg/max)	% <u>c</u> c	and the same of th		Sky		
START	8:40	74	6-10	\circ	clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
	10 - 18				clear	patchy	overcast	drizzle	shower
FUE	12:10	80	5-8	C	clear	patchy	overcast	drizzle	shower
END Habitat Or	n-site (circle)			rock outc	clear rops, soil crusts	patchy	overcast	drizzle various ne	shower
i iabitat Oi	r-site (Gircle).	. open sons,	mitops, ridges	s, rock outo	rops, son crusts	, ciay sons	, old loads,	various no	ciai sources
		Butterfly	Species				Tally		Total
	Jarfard	<u> </u>	1 Fred		•				2
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	5		<u> </u>		4				<u> </u>
	Sara	cra	87/P	· le	N	B			0.0
	BUN	5 NOV 601	okuma.		7.7	Ke-B			20
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	Fun	dus	cy win	(<u> </u>				8
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		cmp int.
		Wall cothix
		Cam bist
		Dich cap
	·.	Lup trunc
		Lotus Str
		Pensteman (puple)
	·	Sah colum
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DF CPOZ	Pooint	9-11-11-11-11
DF/(PO3	1 11	~ 18 h // //
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		Lihanthers,
		gilia ragitectum
DF CPOS	, h	4 & Laffirus in By ac
DECPUL	<i>(</i>)	3
		Minulus brev
	·	Amonteia menz
		Can anthres heterophyller
		' 0
TOTAL NUMI	BER OF QCB DE	rected: O Individuals

Page 2 of 2

Recorder:_	Dele	Pourel	Add'l	Person:	Bo	الهرلان	» y —	Date:	<u> </u>	5/10
			/ Project							
GPS Unit :		9			QCB Prot	ocol Su	vey#	6	of	<u>5</u> .
TIME (24	I-hour)	Temp (F°):	Wind (avg/max)	% CC		-		Sky	,	
START	1150	740	5/10		Çlea	pa	tchy	overcast	drizzle	shower
	1311	8.10	5/7	0	Clea	pa pa	tchy	overcast	drizzle	shower
	1715	780	3/4	0	Clea	7	tchy	overcast	drizzle	shower
	1210	01	3/4	0	Celés		tchy	overcast	drizzle	shower
					clea		tchy	overcast	drizzle	shower
	-				clea		ichy	overcast	drizzle	shower
END	cito (circle)	onen soile	hilltops, ridges	Z-rockoute	clea		tchy		drizzle verious ne	shower
Habitat Off-	site (circle)	oheii sons	milops, ridge	N TOOK OUTO	ps, solic	uses, cie	ay oono	, 0021000	, veinous no	otal bodioco
		Butterfly	Species					Tally	ţ	Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST
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		COSTACATO
		Cryptanthy Perstemon
		Parsimon
		Plagro bed hyre
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FOTAL NUM	BER OF QCB	ETECTED:	0	INDIVIDUALS
		Page <u>2</u> of <u>2</u>		

Recorder:	Dale	Paw	ell_Add'I	Person:	35	Ully	Date:	5/17	5/10
Project:	Campo	Wind Energy	/ Project	Map #: _	AX H	1/	Survey S	xn: <u> </u>	ungo C
GPS Unit :		9			QCB Prot	tocol Survey	r# <u>6</u>	of	5 .
	24-hour)	Temp (F°):	Wind (avg/max)	% cc		1	Sky		
START	8:40	7 / 3 3 S	6/8	9	Clea	~ >		drizzle	shower
	1:35	760	7/9	0	€ € € € € € € € € € € € € € € € € € €			drizzle drizzle	shower shower
	11 45	76	7/7		clea			drizzie	shower
	15. 1.1				clea			drizzle	shower
			·		clea			drizzle	shower
END					clea	r patchy		drizzle	shower
Habitat On	-site (circle)	open soils,	hilltops, ridges	rock outc	rops, soil ci	usts, clay s	oils, old roads	, various ne	ctar sources
		Butterfly	Species				Tally		Total
Hart	ord's Su	160							
Yell	ow?								1
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/IAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		Layid
-		Lashenia
	·	Crystatha
		Pen Demon
		Plane bothyra
		Erodium
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011		
200-1	0.5	OF KELLY LOUIS
DOPATON	Pont	Black Tailed Tack Rabbit
		TECTED: O INDIVIDUAL

Page ___of ____

			Quino Chec		utterfly Prot	ocol Surve	у		
		-			ata Sheet				
Recorder	MIKE	COUFFER	Add'l	Person:	NONE		Date:	15 MA	1,2010
Project: _	Campo	Wind Energ	y Project	Map #: _	TILES 15	+16	_ Survey S	kn: <u>CAM</u>	180-L
GPS Unit	t: GAR	Min 12	,		QCB Protoc	col Survey #	6	of	5
TIME	(24-hour)	Temp (F°):	Wind (avg/max)	% cc		1.7	Sky		
START	0830	74	4>9 mp4	CLEAR	clear	patchy	overcast	drizzle	shower
	0900	74	3->9 MPH	CLEAR	(lear)	patchy	overcast	drizzle	shower
	1000	78	8->4 MPH	CLEAR	clear	patchy	overcast	drizzle	shower
	1100	80	BY 2 WOH	CLEAR	Clear	patchy	overcast	drizzle	shower
	1700	76	8-96 MBH	CLEAR	clear	patchy	overcast	drizzle	shower
	1300	80	Ham Fr-B	CLEAR	Clear	patchy	overcast	drizzle	shower
END	1400	84	D->4 MPH	CLEAR	Clear	patchy	overcast	drizzle	shower
парна О			Milliops ridges			sts, clay sol	is, <u>Qid roads</u>	various n	ectar sources
	(),- ,,-		y Species	m, ccen	_		Tally		Total
BEHR	& META				-	IN FIEL	D NOTERO	XOK-	93
	ON BLUE			Co-Tallana			"		39
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
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ALL NUMBERED	Points REPRESENT	OLLINSIA SP. LOCATIONS
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TOTAL NUM	BER OF QCB DE	TECTED: INDIVIDUALS

Page _ of _ Z_

Recorder:_		Powell	Add'l	Person:	John B	os Tack	Date:	5/16	10
Project:	Manzah	e ita Wind En	ergy Project	Мар	#:	6	Survey	Sxn: <u>Co</u>	A com
		- A			QCB Protoco				
TIME (2		Temp (F°):	Wind (avg/max)	% cc			Sky		:
START	12517	80 0	7/9	0	clear	patchy	overcast	drizzle	shower
	16:10	210	5/7		Clear	patchy	overcast	drizzle	shower
	-		-,		clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
END					clear	patchy	overcast	drizzle	shower
Habitat On	-site (circle):	open soils	hilltops, ridges	s, rock outc	rops, soil crust	s, clay soils	s, old roads	various ne	ctar sources
					<u> </u>				
		Butterfly	/ Species				Tally		Total
White	3					\mathcal{N}			3
الخ ک		lue	- 4/2		,	1			i
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Acm	on Blue		***	<u></u>		1			
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)						
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TOTAL NUME	BER OF QCB DET	TECTED: INDIVIDUALS						

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Recorder: Dale	Pawell Add's	Person:	ohn B	ostick	Date:	2/16	110
Project: Manzanita W	Vind Energy Project	_ Map#	•) ,7/	Survey :	Sxn: Co.	apa D
GPS Unit :	6			ol Survey#_		of	5
TIME (24-hour) Tem	Wind np (F°): (avg/max)	% CC		7 - 8 - X	Sky		
START 8:45	71 8/11		Cléao	patchy	overcast	drizzle	shower
9:50 7	6 6/10	8	Clear	patchy	overcast	drizzle	shower
11:30 7	7-80 69		cleas	patchy	overcast	drizzle	shower
2:55 7		O!	(Tear)	patchy	ovércast	drizzle	shower
14.20 3	270 47	0	clear	patchy	ovércast		shower
			clear	patchy	overcast	drizzle	shower
Habitat On-site (circle): epei	n soite bittone ridans	- 1 E	clear	patchy	overcast	drizzle	shower
- Tobitat Off Site (Girole). gpei	ir acus, idiliops, Ruges,	TOOK OUTCION	s, suil ausi	s, clay solls,	Old roads; \	anous nec	ar sources
B	utterfly Species				Tally		Total
Behrs Metalm	in the			W 160	WI W	W IN	30
adv?				M			- Q
Pale Sarallantal				1	1000	* * * * * * * * * * * * * * * * * * * *	1.12.
Blue?				W 11			7
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
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TOTAL NUMBER OF QCB DETECTED: O INDIVIDUALS

Recorder:	DAVID	K. FAJIK	Add'l	Person:	Lewis	C.	Date: _	16 44.	12010
Project:	Project: Campo Wind Energy Project Map #:					11/12 E Survey Sxn: CAM			POE
GPS Unit	GPS Unit: #5					ocol Survey #	<u>6</u>	of	5 .
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	0900	70	4	ø	Clea	patchy	overcast	drizzle	shower
	1000	7-5	5	Ø	∠ iea	patchy	overcast	drizzle	shower
	1100	77	<u> </u>	Ø	clea		overcast	drizzle	shower
	1260	75	7	Ø	€ fear	· · · · · · · · · · · · · · · · · · ·	overcast	drizzle	shower
	1300	73	(0	Ø	cléai	•	overcast	drizzle	shower
	1400	81	3	Ø	ziéai	, ,	overcast	drizzle	shower
END	1500	ರಿ೦	4		Clean		overcast	drizzle	shower
Habitat On	oo الم	77	hilltopജridge: පි	SPOCK OUTC	rops>soil cri	usts, clay solls	s, cold roads,	various ne	ctar sources
		Butterfly	/ Species				Tally		Total
	PLebojus	Acmon							25+
	Apodemi	A virguet	1						25*
	Annoche	is SARA							4
(^A elastrin	ia echo							2
	Expanis	funeral	: 5						2
	elias ha	rfordii						= 100-100	2
(entea p	rotedus							G
		marcha							1
	Euphila	tres beaux	rdino						•
	Papilio e	embusge	<u> </u>						
		meliss							1
		Nic. ppe							2
	Anessa								2
	prepuid	iom ontil ta clau	2 - 34 · · · · · · ·						
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//AP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
#11,126	Mark's 1.	Colleusia (100+)
	2.	(100+)
	3.	٧ (~5c)
	4	" (180's)
	5,	HORNED Lizard
•		
		NECTAR: CRYPTANTHA
		NECTAR: CRYPTANTHA Blue Dicks
·		Gold fields
		Miss. Composites
		CallensiA
	· · · · · · · · · · · · · · · · · · ·	
	BER OF QCB DE	TECTED: & INDIVIDUA

Recorder:	DAVI	O FU	ETILL!Add'I	Person:	CSH	PAIPA	Date: _	5-17	-10
Project: Campo Wind Energy Project				Map #: _	2)	Survey Sx	(n: <u>P</u>	
	6(##		<u>5</u> .
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		·
START	10:40	69	3.5	160	clea	ır patchy	overcast	drizzle	shower
START	11:20	73	2-4	100	clea	r patchy	overcast	drìzzle	shower
			, , , , , , , , , , , , , , , , , , ,		clea	r patchy	overcast	drizzle	shower
					clea	ır patchy	overcast	drizzle	shower
					clea	ır patchy	overcast	drizzle	shower
					clea	r patchy	overcast	drizzle	shower
END	16:00	68	3-10	10	Clea	r patchy	overcast	drizzle	shower
			hilltops, ridges	s, rock outci	ops, soil cr		ils, old roads,	various nec	tar sources
	•								
,		Butterfly	y Species		·		Tally		Total
/-	Cmon	due				6 1.			2
. ,		200	1			30			3
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	<u>sahvs</u>	me	for main	<u>k</u>		MA			20
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
		Last cal
		Cryt in t
		Salv col
	·	Camis bist
	•	Mimulus browing
		Esch cal.
		Filare well
CU >CH		Toppy of Ocollinsia - probably
CH >CH	` (an internal form polyson
DFHLOI	noint	1 Herred, lizare
	P	Chaenack's glab
		Grysisimum capo
		Exicophy/lum, wallacei
		Lincenthers dianel
		Delphinium
	·	Eriastrum sup
		Lotus Stric
		Camissinia compositris
		Phaselia miner
		Lagra Stand
		Checosis calif : (10-12 My
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		- %
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TOTAL NUME	BER OF QCB DET	rected: \mathscr{P} individuals

Recorder: DAVID K. FAULKNEE Add'l Person:							Date: _	17 M	72610
Project:	Campo	Wind Energy	/ Project	Map #: _			Survey Sxi	n: <u>F</u>	
GPS Unit :	GPS Unit: 5M #13					ocol Survey#	6	of	5 .
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky		
START	1500	68	8	Ø	Clear	patchy		drizzle	shower
					clear	patchy	overcast	drizzle	shower .
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
		Top to come			clear	patchy	overcast	drizzle	shower
END	1600	66	, 10	\$	Clear		overcast	drizzle	shower
Habitat On	-site (circle)	: open soils	hilltops, ridges	s, rock outc	rops soil cru	usts, clay soils	s, old roads.	various ne	ctar sources
	•	D. 44 - 46.	. 0				Talle		T-4-1
	1. 4.		Species				Tally		Total
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR-SOURCES, GENERAL WILDLIFE LIST)
7 F		
		Cryptanha Goldfields
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TOTAL NUMI	BER OF QCB DET	TECTED: Ø INDIVIDUALS

Recorder: David K. Faul weev Add'l Person:							Date:	Date: 17 mm 2010		
Project: Campo Wind Energy Project Map #:					_8			Survey Sxn:	CAM	90-B
GPS Unit :	SM # 1	13			QCB Prot	ocol	Survey#_	<u> 6</u>	of	5
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC				Sky	-	
START	1400	ገ-5	හි	50	clea	ır ,	(patchy)	overcast	drizzle	shower
					clea	ır	patchy	overcast	drizzle	shower
					clea	ır	patchy	overcast	drizzle	shower
				•	clea	ır	patchy	overcast ¹	drizzle	shower
					clea	ır	patchy	overcast -	drizzle	shower
					clea	ır	patchy	overcast	drizzle	shower
END	1500	68	ક્ષ	<u> </u>	cléa		patchy	overcast	drizzle	shower
Habitat On	-site (circle)	open soils,	hilltops, ridges	, cock outc	rops soil cr	usts,	clay soils	, ord roads, v	arious as	ctar sources
		Butterfly	y Species					Tally		Total
A. Mer	me licron	J.Fr								8
PAC	ia. 50a									2
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)					
8-3		CryptonTha					
		Cryptanina Blue Ozks Goldfields					
		Goldfilds					
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TOTAL NUM	BER OF QCB DET	ΓECTED: Ø INDIVIDUALS					

Recorder:	Dav.0	K. FAUL	KHEK Add'I	Person:			Date: _	17 MAY	2010
Project: Campo Wind Energy Project				Map #: _	13		_ Survey Sxi	n: <u>CAM</u> ?	OF
GPS Unit :	SM #1	3	-		QCB Proto	ocol Survey#	<u></u> (c	of	<u> </u>
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC	·		Sky		
START	1100	ଟେ	5	180	clear	patchy	(overcast)	drizzle	shower
	1300	69	5	100	clear	patchy	overcast)	drizzle	shower
	1300	72	4	100	clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
	, 1s				clear	patchy	overcast	drizzle	shower
					clear	patchy	overcast	drizzle	shower
END	1400	15	88	<u> 50</u>	clear	patchy	overcast	drizzle	shower
Habitat On	-site (circle)	open soils,	Miltops ridge	s) lock outc	ops, soil cru	usts, clay soils	s, etd roads	various	ctar sources
		Butterfly	/ Species				Tally		Total
200	04270								3
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST
13 F	MARKS \$ 255	Collousia
	256	iC.
	251	" 100's
•	258	
	259	Horned Lizard (jovenil)
	260-2	•
		Cryptantha
		Cryptantha Blue Dicks
		Goldfields
	·	
	·	
	BER OF QCB DET	TECTED: Ø INDIVIDUAL

Page <u>2</u> of <u>2</u>

Project: Campo Wind Energy Project	Recorder: David K. Faulkher Add'l Person:							Date: _	17 HAY	2010
TIME (24-hour) Temp (F°): (avg/max) % CC Sty START 1000 69 5 100 clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower END END Butterfly Species fock outcrops soil crusts, clay soils, old roads, various rectar sources	Project:	Campo	Wind Energy	Project	Map #: _	12 Survey Sxn: C				
TIME (24-hour) Temp (F°): (avg/max) % CC Sty START 1000 69 5 100 clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower END Habitat On-site (circle): Open soils fullfors (ages fock outcrops) soil crusts, clay soils, old roads, various (ectar sources) Butterfly Species Tally Total	GPS Unit:	SM # 13			· · · · · · · · · · · · · · · · · · ·	QCB Proto	col Survey#	6	of	5 .
START 1000 69 5 100 clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower END clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower Habitat On-site (circle): open soils hilltops ragges tock outcrops soil crusts, clay soils, old roads, various rectar sources Butterfly Species Tally Total	TIME (2	4-hour)	Temp (F°):		% CC			Sky	•	*
clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower END clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower Tally Total						clear	patchy		drizzle	shower
clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower Habitat On-site (circle): open soils, hillfops rages fock outcrops soil crusts, clay soils, old roads, various nectar sources Butterfly Species Tally Total						clear		The state of the s	drizzle	
clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower Habitat On-site (circle): open soils, hillfops ridges fock outcrops soil crusts, clay soils, old roads, various nectar sources Butterfly Species Tally Total								•		
clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower clear patchy overcast drizzle shower Habitat On-site (circle): open soils, fullfops ridges fock outcrops soil crusts, clay soils, old roads, various rectar sources Butterfly Species Tally Total						·				-
END clear patchy overcast drizzle shower clear patchy overcast drizzle shower Clear patchy										
END clear patchy overcast drizzle shower Habitat On-site (circle): open soile, hillfops deges tock outcrops soil crusts, clay soils, old roads, various nectar sources Butterfly Species Tally Total										
Habitat On-site (circle): open soils, hillfops rages rock outcrops soil crusts, clay soils, old roads, various rectar sources Butterfly Species Tally Total	END					clear				
Butterfly Species Tally Total	Habitat On	-site (circle)	open soils	hilltops (ages	sxfock outci		sts, clay soils			
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P Acmon 2			Butterfly	Species				Tally		Total .
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)					
120							
		CRYPTANTHA Goldfields					
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TOTAL NUMI	BER OF QCB DET	TECTED: INDIVIDUALS					

Recorder:	WIKE	COUFFER	Add'l	Person: E	21N BERGY	NAC	Date:	MFL	AY, 2010
Project: Campo Wind Energy Project Map #: Nie 24 Survey Sxn: Campo - R									
GPS Units GARMIN 170 QCB Protocol Survey # 6 of 6								<u>". 6</u> .	
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC			Sky	÷	
START	(000	69	Ø->5 MPH	100	clear	patchy	overcast	drizzle	shower
	1100	69	0->3meH	100	clear	patchy	overcast	drizzle	shower
	1200	74	0->3 MPH	100	clear	patchy	overcast	drizzle	shower
	1300	70	8->2 MPH	100	clear	patchy	overcast	drizzle	shower
	1400	73	Ø->3 MOH	<i>\$</i> 0	clear	patchy	overcast	drizzle	shower
	1500	OF	2->8 MPH	20	clear <	patch	overcast	drizzle	shower
END	1545	69	2->5 MPH	20	clear c	patchy	overcast	drizzle	shower
Habitat On	-site (circle)	: open soils	hilltops) ridges	xock outc	rops) soil crusts	, clay soils	old roads	various r	ectar sources

Butterfly Species	Tally	Total
ACMON BLUE	IN FIELD NOTEROOKS	140
BEHR'S METALMARK	lt .	7
HENNE'S CHECKERSPOR	U	48
SARA ORANGETIP	· · ·	32
GABB'S CHECKERSPON	H.	6
CALIFORNIA SOOTYWING	R	る
BROWN ELFIN	ti	10
MARINE BLUE	£ a	6
FUNEREAL DUSKYWING	18	9
FUNEREAL DUSKYWING- PALE TIGER SWALLOWTAIL	84	3
SPRING AZURE	11	9
RED ADMIRAL PERPLEXING HAIRSTREAK	U	1
PERPLEXING HAIRSTREAK	t,	R)
PAINTED LADY	N.	1
PAINTED LADY	L	1_
GORGON COPPER	1)	.5
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
NUMBERED !	POINTS REPRESENT	Coicinsia AND COULTER'S SNAPDRAGON LOCATIONS
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Recorder:_	Dale	Pau	<u>e</u> ∭ Add'l	Person: <u></u>	O SON WAR	Mones	Date: <u>3</u>	5 47	18	***************************************
Project:	Campo		y Project							
GPS Unit:	-	()			QCB Prote	ocol Survey #	6	of	5	<u> </u>
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC			_Sky			
START	16450	60°	3/5	100	clea	r patchy	overcast	drizzle	shower	
	12:10	65°	ું જિ	100	elimber clea	r patchy	overcast >	drizzle	shower	
	•	·			clea	r patchy	overcast	drizzle	shower	<u>. </u>
					clea	r patchy	overcast	drizzle	shower	
					clea	r patchy	overcast	drizzle	shower	
	***************************************				clea	r patchy	overcast	drizzle	shower	
END					clea		overcast	drizzle	shower	
Habitat On	-site (circle)	: @en solls,	hilltops, ridges	s, rock outc	rops, soil cr	usts, clay soil	s old roads>	various nec	ctar sou	rçes
		Butterfly	/ Species				Tally		To	tal
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)					
TOTAL NUMBER	REP OF OCR DET	TECTED: 6) INDIVIDITALS					

Recorder:_	Dula	Powe	Add'I	Person:	Ca	~\$0.6V	nce Mo	or <u>u</u> Date: _	5/1	7/10	
Project:	Campo	Wind Energ	y Project	Map #: _		22		Survey Sx	n: <u>Caen</u> f	e 9	
GPS Unit :			Ŋ		QCB	Protoco	Survey#	6	of	5	<u>.</u>
TIME (2	4-hour)	Temp (F°):	Wind (avg/max)	% CC				Sky			
START	11:25	670	679	100	Sight	clear	patchy	overcast ∖	drizzle	shower	
	13:00	670	510	100	NACOCO N	clear	patchy	overcast	drizzle	shower	
	1					clear	patchy	overcast	drizzle	shower	
						clear	patchy	overcast	drizzle	shower	
					į.	clear	patchy	overcast	drizzle	shower	
		,				clear	patchy	overcast	drizzle	shower	
END					1	clear	patchy	overcast	drizzle	shower	
Habitat On	-site (circle)	open soils,	hilltops, ridges	s, rock outc	rops, so	oil crusts	s, clay soils	s, old roads	varioùs ne	ctar sources	5
	<u> </u>										_
		Butterfly	y Species					Tally		Total	
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
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TOTAL NUM	BER OF QCB DET	TECTED: INDIVIDUALS

Recorder: MIKE COURFEL Add'l Person: None Date: 19 MAY, 2010									
Project: _	Campo	Wind Energ	v Project	Map #: _	TILE 24,	25			· ·
GPS Unit: GARMIN !				QCB Protocol	Survey#	6	of	6.	
TIME (2	24-hour)	Temp (F°):	Wind	8/ 00					
			(avg/max)	% CC			Sky		
START	0840	68	8->1 MPH	CLEAR	clear	patchy	overcast	drizzle	shower
	0900	69	Ø->1 MPH	CLEAR	clear	patchy	overcast	drizzle	shower
	1000	71	Ø-> 1 MPH	CLEAR_	clear	patchy	overcast	drizzle	shower
	11 00	<i>8</i> 5	Ø->2 MOH	CLEAR	clear	patchy	overcast	drizzle	shower
	1200	84	0	CLEAR	clear	patchy	overcast	drizzle	shower
	1300	82	Ø->1 MOH	CLEAR	clear	patchy	overcast	drizzle	shower
END	END clear patchy overcest drizzle chows								
Habitat On	Habitat On-site (circle): open soils hilltops ridges rock outcrops soil crusts, clay soils old roads various nectar sources								

Butterfly Species	Tally	Total
ACMON BLUE	IN FIELD NOTEBOOK	140
HENNE'S CHECKERSPOT	LR TELD FROTEBOOK	43
SARA DRANGETIP	11	24
PALE TIGER SWALLDWIAIL	1/	4
GABB'S CHECKERSPOT		13
GORGON COPPER	()	13
CALIFORNIA SISTER	11	1
HARFORD'S SULPHUR	ч	3
PAINTED LADY	u	1
BEHOS METALMARK		9
MARINE BLUE	· · · · · · · · · · · · · · · · · · ·	עק
SPRING FIZURE		8
FONEREAL DUSKYWING	(5
SPRING WHITE	· · · · · · · · · · · · · · · · · · ·	ス
CALIFORNIA MACBLE	11	1
CLOUDIESS SULPHUE	· · ·	1

MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
NUMBERED F	DINTS REPRESENT (OLLINSIA POINTS.
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TOTAL NUM	BER OF QCB DE	TECTED: INDIVIDUALS



Recorder;	Dol	Pour	Add'l	Person:	2	sha S	Bostick	Date: _	5/19	1/10
Project:	Project: Campo Wind Energy Project Map #:								ľ	•
GPS Unit	:		6		QCI	3 Protoco	ol Survey #	6_	of	5
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC	Š			Sky		
START	0930	670	0/,0			clear	patchy	overcast	drizzle	shower
	1045	72	4/6	0		clear	patchy	overcast	drizzle	shower
	1230	840	4/6	O D	1	clear	patchy	overcast	drizzle	shower
	12400	l.			. 3	clear	patchy	overcast	drizzle	shower
				14	1	clear	patchy	overcast	drizzle	shower
						clear	patchy	overcast	drizzle	shower
END					Trans.	clear	patchy	overcast	drizzle	shower
	-site (circle)	: open soils.	hilltops, ridge	s. pock outc	robs.					
	()	,	, , , , , , , , , , , , , , , , , , , ,					,,,,		
		Butterfly	y Species					Tally		Total
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-	Martha - Mike C	- Carr								-
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
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001	Point	Activition conteriousm (100)
DPHLOI	Point	570 - 11 - 1
DENCOL	TOIN!	San Diego Harned Lizard
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TOTAL NUMI	BER OF QCB DET	TECTED: O INDIVIDUALS

Project: Managed Wind Energy Project Map #: 2 Survey Sxn: N GPS Unit: 6 QCB Protocol Survey # 6 of 5 TIME (24-hour) Temp (F): (evylmax) % CC Sky START (2-2-) (4-1) (-7-5) (Recorder:_	Brian	n Lohs	troli Add'i	Person:	Daniel		Date:	5/19	10
TIME (24-hour) Temp (F°): Wind (avg/max) % CC START (72-)0 (44 p-7 0 clear patchy overcast drizzle shower 1300 78 3-10 patchy overcast drizzle shower 1400 81 0-7 patchy overcast drizzle shower 1520 83 0-6 patchy overcast drizzle shower 1530 86 0-5 patchy overcast drizzle shower 1530 86 0-5 patchy overcast drizzle shower END clear patchy overcast drizzle sh	Project:	C/I/M Manzan	၇ <i>0</i> lita Wind End	ergy Project	Map #	#:2		Survey	Sxn:	N
TIME (24-hour) Temp (F°): (avg/max) % CC Sky START (7230 (44 0-7 0 clear patchy overcast drizzle shower 1300 78 3-10 clear patchy overcast drizzle shower 1400 81 0-7 clear patchy overcast drizzle shower 1500 83 0-6 clear patchy overcast drizzle shower 1530 86 0-5 clear patchy overcast drizzle shower 1530 86 0-5 clear patchy overcast drizzle shower 1530 86 0-5 clear patchy overcast drizzle shower 1530 86 0-5 clear patchy overcast drizzle shower 1530 86 0-5 clear patchy overcast drizzle shower 1530 86 0-5 clear patchy overcast drizzle shower 1430 0-31	GPS Unit :	6				QCB Protoc	ol Surve y #	6	of	<u>5</u> .
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1400 \$1 0-7	START	1230	(4	0-5	0	(clear	patchy	overcast	drizzie	shower
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END V clear patchy overcast drizzle shower Habitat On-site (circle): open soils, hilltops, ridges, rock outcrops, soil crusts, clay soils, old roads, various nectar sources Butterfly Species Tally Total Openge fip (sach) 3 Dus ky wing sp 4 Marine Blfc 3 Chalcedon checkers pot 1 Acmon Bine 2 Sulpher Sp. 1		1530		0-5		olear	patchy	overcast	drizzle	shower
END V clear patchy overcast drizzle shower Habitat On-site (circle): open soils, hilltops, ridges, rock outcrops, soil crusts, clay soils, old roads, various nectar sources Butterfly Species						clear	patchy	overcast	drizzle	shower
Habitat On-site (circle): open soils, hilltops, ridges, rock outcrops, soil crusts, clay soils, old roads, various nectar sources Butterfly Species Tally Total Openge fip (Sairch) Busky wing Sp H Marine Blfc Dain tel Lady White Sp: Chalcedon checkers pot Acroon Bive Sulpher Sp.	END	V				clear	patchy	overcast	drizzle	shower
Opengetip (Sain) Dusky wing Sp Marine Blte Painted Lady White Sp! Chalcedon checkerspot Acmon Bive Sulpher Sp.	Habitat On-	-site (circle)	open soils,	hilltops, ridges	s, rock outcr					
Dusky wing Sp Marine Blfe Printed Lady White Sp! Chalcolon checkers pot Acmon Bive Sulpher Sp.			Butterfly	y Species				Tally		Total
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Merine Blfe Drinted Lady White Sp! Chalcodon checkerspot Acmon Bive Sulpher Sp.	- I.V	1 _	- 0							4
Acmon Blue 2 Sulphur SD.	Merin									3
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Acmon Blue 2 Sulphur SD.	"wh	ite	SA!							
Acmon Blue 2 Sulphur SD.	ch	alredo	n c}	reckers (aot	-				1
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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
BLSCOI	Rare plant	Streptantius campes tris
	Birds	BESP LEGO BEWR WISW
	·	WREN SOTO CISW PSFL
		LEGO SCJA COPA CALT
		MODO WBNH HOFI NUWO
		RSHa
	·	
	HEVAS	' side Wotched Lizard, W. Whiptarl
		W. Fence Lizant
	Nectar	Sources Lupines Cryptantha endium wallace
		endium me enophy lum wallace
	·	Cotus agroshyllus, cheanactis,
		Cotus agroshyllus, cheauactis,
		Minulus SPD, phacela spp
		Lasthenia perstemen juica
		· · · · · · · · · · · · · · · · · · ·
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	La Mariana de Carlos Ca	
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1000		·
TOTAL NILIS	DED OF OOD DE	TECTED: (1) INDIVIDUALS
TOTAL NUM	BER OF QCB DE	IECTED: φ INDIVIDUALS

				rieia Dat	a Sneet				,
Recorder:	Brian	Lobsi	nol_ Add'I	Person:	Danie		Date:	<u> 5/1</u>	9/10
Project:	Cá W Manzar	ාර් <u>lita Wind En</u>	ergy Project	Map #:	·	20		y Sxn:	P
	6	e			4	ocol Surve y #	<u> </u>	of	5 .
TIME (2	24-hour)	Temp (F°):	Wind (avg/max)	% CC		ı	Sky		
START	445	66	0-1	0	Clea	patchy	overcast	drizzle	shower
	1000	70	0-3	Ö	d ea	L.	overcast	drizzle	shower
	t luc -				clea		overcast	drizzle	shower
					clea	, ,		drizzle	shower
					clea		overcast	drīzzle	shower
		,			clea		overcast	drizzle	shower
END	1230	74	0-5	0	qea:	patchy	overcast	drizzle	shower
Habitat On	Habitat On-site (circle): open soils, hilltops, ridges, rock outcrops, soil crusts, clay soils, old roads, various nectar sources								
		Butterfly	y Species				Tally		Total
Acuroi	1 blu								9
Orange tio									7
Behr's Metalmark									18
Square spotted whe									Z
Pale Svallowtail									2
Marine blue									9
Duskywiner Sp.									
Gal	obs c	Wech	rsport	#					2
Funereal Dusleywing									
Gorgonia Collder									1
Western triled blue									
									1

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MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
BLCHOL	Host Plant	500 individuals Colinsia concolor
	Dra	
	Bird:	BCSP ATPL HOFI CALT
		BEWR CORA SCIA BUSH
		OAFI (aQU BIHGR BHO
		RSHa Spto Thru MoDO
		Cath BGGN WRON
	Herps:	Side blotched Lizard, W. Whiptall
		w. Fence Lizard Granite spiny Lizard
	Manuals	: Co Houtail
		i A t
	Nector S	oures: Wines wellflower, cheanectis
		Contrenia, De phinium, GiliaC2A
		Layia erodivin Amaclia spaj
		cryptentha, Dersteman, Collinsia,
		Camunissavia SAD Frophyllum Wallace:
		Liventhus bellus chiq
		,
1 ₂₂	<u> </u>	
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TOTAL NUM	BER OF QCB DET	rected: Individuals

Quino Checkerspot Butterfly Protocol Survey Field Data Sheet

Recorder: MIKE COUFFER Add'l Person: NONE Date: 30 MBy 2010									
Project: Campo Wind Energy Project Map #: VILE 13						Survey Sx	n: <u>CAM</u> 1	20-F	
GPS Unit	GAR.	<u>тији 11</u>			QCB Protocol	Survey#	<u> </u>	of	<u>6 .</u>
TIME (C		- (-0)	Wind]				
TIME (2	4-hour)	Temp (F°):	(avg/max)	% CC			Sky		
START	0848	710	8-34 WOH	CLEAR	clear	patchy	overcast	drizzle	shower
	0000	~35°	2-74 MPH	CLEAR	clear	patchy	overcast	drizzle	shower
	1000	78°	2->6 MPH	CLEAR	clear	patchy	overcast	drizzie	shower
	1100	77°	2-26MPH	CLEAR	clear	patchy	overcast	drizzle	shower
	1200	~2F	1->2 W6H	CLEAR	clear	patchy	overcast	drizzle	shower
	1300	පිරු	3->6 MPH	CLEAR	clear	patchy	overcast	drizzle	shower
END	1315	80° .		CLEAR	clear	patchy	overcast	drizzla	chawar
Habitat On	Habitat On-site (circle): open soils hilltops ridges rock outcrops soil crusts, clay soils, old roads various nectar sources								

Butterfly Species	Tally	Total
BEHR'S METALMARK	IN FIELD NOTEBOOK	Total
CIOUDLESS SULPHURS	TI LIECO MOTERON	<u>33</u> え
SPRING WHITE	· ·	1 2
ACMON BLUE	.,	10
MARÎNE BLUE	4,	7.3
GRAYD HAIRSTREAK	£ l	1
GRAY HAIRSTREAKS PAINTED LARY	11	ス
FUNERBAL DUSKUWING	C)	3
FUNEREAL DUSKYWING PALE TIGER, SWALLOWTAIL	11	5
SPRING FIZURE	U	9
Brown ELFIN	1 11	3
Anise Swallowtail	N.	1

Quino Checkerspot Butterfly Protocol Survey Field Data Sheet

MAP/GPS LABEL	POINT/POLYGON TYPE	COMMENTS FOR ALL MAPPED POLYGOS AND GPS POINTS/ SPECIES LIST (NECTAR SOURCES, GENERAL WILDLIFE LIST)
ALLNUMBERED	POINTS REPRESENT	
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TOTAL NILINAL	BER OF QCB DE	TECTED: INDIVIDUALS
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APPENDIX C

SUMMARY OF BUTTERFLY SPECIES OBSERVED DURING FOCUSED QUINO CHECKERSPOT BUTTERFLY SURVEYS FOR THE CAMPO WIND ENERGY PROJECT

APPENDIX C SUMMARY OF BUTTERFLY AND MOTH SPECIES OBSERVED DURING FOCUSED QUINO CHECKERSPOT BUTTERFLY SURVEYS FOR THE CAMPO WIND ENERGY PROJECT

Common Name	Species Name	Survey Week						
Common Name	Species Name	1	2	3	4	5	6	Total
Papilionidae								
Anise swallowtail	Papilio zelicaon	0	2	2	0	0	1	5
Western tiger swallowtail	Papilio rutulus	1	2	1	0	0	0	4
Pale swallowtail	Papilio eurymedon	8	18	36	85	50	68	265
Black swallowtail	Papilio polyxenes	0	1	0	0	0	0	1
Pieridae								
Cabbage white	Pieris rapae	0	47	0	0	1	0	48
Spring (California) white	Pontia sisymbrii	73	29	24	10	14	41	191
Checkered (common) white	Pontia protodice	39	7	9	20	21	22	118
Becker's white	Pontia beckerii	0	0	0	0	1	2	3
California (pearly) marble	Euchloe hyantis	47	411	201	49	13	4	725
Gray marble	Euchlo lanceloata	0	4	0	1	0	0	5
Desert (Felder's) orangetip	Anthocharis cethura	0	10	3	2	0	0	15
Sara orangetip	Anthocharis sara sara	364	214	170	243	130	168	1289
White species	Species unknown	12	43	57	63	11	29	215
Marble species	Species unknown	7	87	83	40	0	1	218
Orange sulphur	Colias eurytheme	0	2	3	3	1	0	9
Harford's sulphur	Colias harfordii	1	0	7	6	5	27	46
California dogface	Zerene eurydice	0	0	1	0	1	0	2
Cloudless (senna) sulphur	Phoebus sennae marcellina	0	0	0	0	0	3	3
Sleepy orange	Eurema nicippe	0	0	0	0	0	1	1
Dainty sulphur	Nathalis iole	0	0	0	0	0	2	2
Sulphur species	Species unknown	6	3	11	16	5	12	53
Orange species	Species unknown	0	14	10	9	0	1	34
Daniadae	eposios aimilomi							
Queen	Danaus gilippus	0	0	0	1	0	0	1
Nymphalidae	Zanaac giiippac							•
Quino checkerspot	Euphydryas editha quino	0	2	4	6	1	0	13
•	Euphydryas chalcedona							
Henne's checkerspot	hennei	1	10	12	136	122	92	373
Gabb's checkerspot	Chlosyne gabbii	3	23	4	98	39	27	194
Checkerspot species	Species unknown	0	1	2	0	0	0	3
Red admiral	Vanessa atalanta	0	0	1	3	0	2	6
Painted lady	Vanessa cardui	124	65	90	132	37	34	482
West coast lady	Vanessa annabella	0	2	4	24	5	2	37
American lady	Vanessa virginiensis	0	2	2	0	0	0	4
Lady species	Vanessa species	11	28	1	27	8	9	84
Common buckeye	Junonia coenia	0	0	0	3	2	0	5
California sister	Adelpha bredowii californica	0	0	0	0	0	1	1
California patch	Chlosyne californica	0	0	0	0	0	1	1
California tortoiseshell	Nymphalis californica	22	1	1	0	0	1	25
Gulf fritillary	Agraulis vanillae	0	0	1	0	0	0	1
Variegated fritillary	Euptoieta claudia	0	0	0	0	0	1	1
Lycaenidae	,							-
Behr's/Mormon metalmark	Apodemia mormo virgulti	89	1226	2404	2206	1009	1074	8008
Great copper	Lycaena xanthoides	0	0	0	0	0	1	1

C-1

Common Name	Species Name			Surve	y Week			
Common Name	Species Name	1	2	3	4	5	6	Total
Gorgon copper	Lycaena gorgon	0	0	0	0	5	16	21
Brown elfin	Callophrys augustinus	37	40	15	11	9	20	132
Perplexing (bramble) hairstreak	Callophrys dumetorum	297	351	205	47	34	8	942
Gray hairstreak	Strymon melinus	1	0	0	3	2	5	11
Great purple hairstreak	Atlides halesus	0	1	0	3	0	0	4
Hairstreak sp.	Species unknown	0	0	1	0	0	0	1
Southern (silvery) blue	Glaucopsyche lygdamus australis	9	55	41	51	29	28	213
Arrowhead blue	Glaucopsyche piasus	0	36	39	0	0	16	91
Melissa blue	Lycaeides melissa	0	0	0	0	0	16	16
Lupine blue	Plebejus lupines	0	0	0	3	6	3	12
Acmon blue	Icaricia acmon acmon	94	167	192	281	322	760	1816
Bernardino blue	Euphilotes Bernardino	0	0	0	0	0	7	7
Echo blue/Spring azure	Celastrina ladon echo	5	12	7	3	26	33	89
Western tailed blue	Everes amyntula	0	1	1	0	0	2	4
Marine blue	Leptotes marina	0	0	0	1	0	55	56
Ceraunus blue	Hemiargus ceraunus	0	0	0	0	0	1	1
Pygmy blue	Brephidium exilis	0	1	0	0	0	1	2
Blue species	Species unknown	22	49	64	48	46	79	308
Hesperiidae	'	I	ı	I	ı	ı		
Funereal duskywing	Erynnis funeralis	31	127	199	103	72	109	641
Mournful duskywing	Erynnis tristis	0	3	0	1	1	0	5
Pacuvius duskywing	Erynnis pacuvius	1	0	0	0	0	0	1
Sleepy duskywing	Erynnis brizo	23	27	1	5	4	1	61
Propertius duskywing	Erynnis propertius	0	10	3	5	2	6	26
Afranius duskywing	Erynnis afranius	0	0	2	0	0	0	2
Duskywing species	Erynnis species	30	120	79	70	28	56	383
Small-checkered skipper	Pyrgus scriptura	0	0	0	0	0	1	1
Northern white skipper	Heliopetes ericetorum	0	0	0	0	0	1	1
Common sootywing	Philosora catalus	0	0	5	13	16	11	45
Skipper species	Species unknown	2	2	0	1	1	0	6
Juba skipper	Hesperia juba	0	1	0	1	1	0	3
Sachem	Atalopedes campestris	0	0	0	0	0	1	1
Moth Species	, and the second			_			1	1
Sphyngid moth	Species unknown	4	4	0	0	0	0	8
1 7 3	Euproserpinus phaeton	1	37	1	0	0	0	39
	Litocola sexigueta	1	0	0	0	0	0	1
	Leptarctia	1	0	0	0	0	0	1
	Alypia ridingsa	1	0	0	0	0	0	1
	E. Phaeton sphinx	9	0	0	0	0	0	9
	Heliothis belladona	0	3	0	0	0	0	3
	Drasteria tejonica	0	3	0	0	0	0	3
	Drasteria edwardsi	0	1	0	0	0	0	1
	Drasteria biformata	0	1	0	0	0	0	1
	Hyles lunesta	0	0	1	0	0	0	1
	Hemoris affinis	0	0	1	0	0	0	1
Moth species	Adela species	0	0	0	0	1	0	1
Moth species unknown	Species unknown	17	49	3	0	0	0	69

APPENDIX D

WEEKLY FLOWERING PLANT OBSERVATIONS FOR CAMPO WIND ENERGY PROJECT

APPENDIX D WEEKLY FLOWERING PLANT OBSERVATIONS FOR CAMPO WIND ENERGY PROJECT

		Survey W		eek			
Scientific Name	Common Name	1	2	3	4	5	6
Achillea millefolium	common yarrow						Х
Adenostoma fasciculatum	chamise	Х	Х	Х	Х	Х	Х
Amsinckia menzesii var. intermedia	rancher fiddleneck	х	х		Х	Х	
Anisocoma acaulis	scale-bud		Х	Х	Х	Х	Х
Antirrhinum coulterianum	Coulter's snapdragon	Х	Х		Х	Х	Х
Antirrhinum nutallianum ssp. nutallianum	snapdragon			х			
Arabis pulchra var. pulchra	beautiful rock-cress	Х	Х	Х	Х		
Arctostaphylos spp.	manzanita	Х	Х	Х	Х		
Artemesia tridentata ssp. tridentata	big sagebrush	х	х	Х	Х	х	х
Astragalus douglasii var. perstrictus	Jacumba milkvetch		х		Х	Х	х
Baccharis salicifolia	mulefat		Х				
Camissonia spp.	sun-cup	Х		Х	Х	Х	Х
Caulanthus heterophyllus var. heterophyllus	San Diego jewelflower		х				х
Caulanthus simulans	Payson's jewelflower	Х	Х	Х	Х		
Castilleja ssp.	Indian paintbrush			х	х	Х	
Ceanothus cuneatus var. cuneatus	buck brush	х		Х	Х		
Ceanothus greggii var. perplexans	cup-leaf-lilac		х		х		
Ceanothus leucodermis	chaparral whitethorn		Х	Х	Х		
Cercocarpus betuloides var. betuloides	birch-leaf mountain mahogany	х	х	х			
Chaenactis artemisiifolia	white pincushion					Х	х
Chaenactis glabriuscula var. glabriuscula	yellow pincushion					х	х
Cirsium occidentale var. californicum	California thistle				х	х	х
Claytonia parviflora spp.	miner's-lettuce	Х		Х			
Collinsia concolor	Chinese houses	Х	Х	Х	Х	Х	Х
Cordylanthus rigidus ssp. setigerus	dark-tip bird's beak	х	х		Х	Х	Х
Coreopsis californica var. californica	California coreopsis		х	х	х	х	Х
Cryptantha spp.	cryptantha	х	Х	Х	Х	Х	Х
Delphinium parishii ssp. subglobosum	oceanblue larkspur		х	Х	х	х	х

		Survey W		/ W	eek		
Scientific Name	Common Name	1	2	3	4	5	6
Dendromecon rigida	bush poppy		Х			Х	Х
Descurainia pinnata ssp. glabra	tansey mustard	Х	х	Х	х	х	
Dichelostemma capitatum	blue dicks		х	х	х	Х	Х
Emmenanthe penduliflora var. penduliflora	whispering bells				х	х	х
Eriastrum sp.	woolly star						Х
Ericameria linearifolia	interior goldenbush		Х	х		х	
Ericameria sp.	goldenbush		Х	х	Х	х	Х
Eriogonum fasciculatum	buckwheat		Х	Х		Х	
Eriophyllum confertiflorum var. confertiflorum	long-stem golden yarrow						х
Eriophyllum wallacei	Wallace's woolly daisy	Х			Х	Х	Х
Erodium cicutarium	filaree	Х	х	х	х	Х	х
Erysimum capitatum ssp. capitatum	western wallflower		х	х	х	х	х
Eschscholzia californica	California poppy	Х	Х	Х	х	Х	Х
Eucrypta chrysanthemifolia var. bipinnatifida	spotted hideseed			х			
Filago californica	California filago						Х
Geraea viscid	stickey geraea		Х	Х		х	Х
Gilia capitata	ball gilia				Х	х	Х
Gilia spp.	gilia	Х		х	Х	х	Х
Hesperoyucca whipplei	chaparral candle				х	х	
Hirschfeldia incana	short-pod mustard		Х				
Lasthenia gracilis	common goldfields	Х	Х	Х	Х	Х	Х
Lathyrus splendens	Campo pea		Х	Х	Х		Х
Layia glandulosa	white layia		Х	Х	Х	Х	Х
Lepidium spp.	pepperweed					х	
Leptosiphon lemmonii	Lemmon's linanthus				Х	х	Х
Linanthus bellus	desert beauty	Х	Х	Х	Х	х	Х
Lomatium dasycarpum ssp. dasycarpum	woolly fruit lomatium		х				
Lotus agrophyllus var. agrophyllus	silver-leaf lotus				х	х	х
Lotus scoparius	deer weed			Х	Х	х	Х
Lotus strigosus	bishop's lotus		Х	Х	Х	Х	Х
Lotus sp.	lotus	Х	Х		Х	Х	Х
Lupinus bicolor	miniature lupine		Х	Х	Х	Х	Х
Lupinus concinnus	bajada lupine		Х	Х	Х	Х	Х
Lupinus hirsutissimus	stinging lupine					Х	
Lupinus truncatus	collar lupine					Х	Х
Lupinus spp.	lupine	Х	Х	Х	Х	Х	Х

			Su	Survey Wee					
Scientific Name	Common Name	1	2	3	4	5	6		
Malacothrix clevelandii	Cleveland's malacothrix			х		х			
Malacothrix californica	California dandelion	Х	х	х	х	х			
Malacothrix spp.	dandelion			Х	Х		Х		
Marah macrocarpus var. macrocarpus	wild cucumber	х	х	х		х			
Minuartia douglasii	Douglas's sandwort					Х	Х		
Nemophila menziesii var. integrifolia	baby blue eyes	x	Х	Х	Х	Х			
Paeonia californica	California peony	Х	х						
Pectocarya spp.	combseed	Х	х						
Phacelia brachyloba	short-lobe phacelia						х		
Phacelia distans	white-heliotrope		х	х	х	х	х		
Phacelia parryi	Parry's phacelia			х	х	х	х		
Phacelia spp.	phacelia		х	х	х	х	х		
Plagiobothrys spp.	popcornflower	Х	х	х	х	х	х		
Platystemon californicus	cream cups		х	х	х	х	х		
Rhus ovata	sugar bush		х	х					
Rhus trilobata	basket bush		х						
Quercus x acutidens	hybrid Engelmann's scrub oak	Х	х						
Salvia apiana	white sage						х		
Salvia columbariae	chia	Х	х	х	х	х	х		
Senecio californicus	California butterweed	Х	х	х	х	х	х		
Sisymbrium altissimum	tumble mustard						х		
Sisyrinchium bellum	blue-eyed grass	Х							
Streptanthus campestris	southern jewelflower			Х	х	Х	Х		
Trichostemma parishii	mountain blue curls		Х		х	Х	Х		
Uropappas lindleyi	silver puffs				х	Х			
Viola purpurea ssp. quercetorum	oak yellow violet	х	х						
Yucca schidigera	Mohave yucca	Х		Х			Х		

boldface = a sensitive species

APPENDIX E

VERTEBRATE SPECIES OBSERVED DURING QUINO SURVEYS FOR CAMPO WIND ENERGY PROJECT

APPENDIX E VERTEBRATE SPECIES DETECTED DURING FOCUSED QUINO SURVEYS FOR CAMPO WIND ENERGY PROJECT

Scientific Name	Common Name
REPTILES	
Order Anura	Frogs and Toads
Family Bufonidae	
Bufo boreas halophilus	western toad
Family Hylidae	
Pseudactis cadaverina	California chorus frog
Family Pelobatidae	
Spea hammondii	western spade-foot toad
Bufo boreas	California toad
Order Squamata	Lizards and Snakes
Family Colubridae	
Diadophis punctatus similis	ring-necked snake
Lampropeltis getula californiae	California king snake
Masticophis taeniatus	striped whipsnake
Pituophis catenifer	gopher snake
Family Phrynosomatidae	
Aspidoscelis tigris	western whiptail lizard
Phrynosoma coronatum blainvillii	coast horned lizard
Scleloporus occidentalis	western fence lizard
Scleloporus orcutti	granite spiny lizard
Uta stansburiana	side blotched lizard
Family Viperidae	
Crotalus mitchellii	speckled rattlesnake
Crotalus helleri	southern Pacific rattlesnake
Family Xantusidae	
Xantusia henshawi	granite night lizard
BIRDS	
Order Apodiformes	Hummingbirds and Swifts
Family Apodidae	
Aeronautes saxatalis	white-throated swift
Family Trochilidae	
Calypte anna	Anna's hummingbird
Order Ciconiiformes	Eagles, Hawks, and Kites
Family Accipitridae	
Accipiter cooperii	Cooper's hawk
Buteo lineatus	red-shouldered hawk
Buteo jamaicensis	red-tailed hawk
Circus cyaneus	northern harrier
Family Cathartidae	
Cathartes aura	turkey vulture
Family Falconidae	
Falco mexicanus	prairie falcon
Order Columbiformes	Pigeons and Doves

Scientific Name	Common Name
Family Columbidae	
Columba livia	rock pigeon
Zenaida macroura	mourning dove
Order Gruiformes	
Family Rallidae	
Fulica americana	American coot
Order Passeriformes	Song Birds
Family Alaudidae	
Eremophila alpestris actia	California horned lark
Family Aegithalidae	
Psaltriparis minimus	bushtit
Family Cardinalidae	
Melanocephalus pheucticus	black-headed grosbeak
Passerrina amoena	lazuli bunting
Family Corvidae	
Aphelocoma californica	western scrub jay
Corvus brachyrhynchos	American crow
Corvus corax	common raven
Family Cuculidae	
Geococcyx californianus	roadrunner
Family Emberizidae	
Aimophila ruficeps	rufous-crowned sparrow
Amphispiza bilineata	black-throated sparrow
Chondestes grammacus	lark sparrow
Junco hyemalis	dark-eyed junco
Passerculus sandwichensis	savannah sparrow
Pipilo crissalis	California towhee
Pipilo maculates	spotted towhee
Spizella atrogularis	black-chinned sparrow
Zonotrichia leucophrys	white crowned sparrow
Family Fringillidae	
Carpodacus mexicanus	house finch
Carduelis lawrencei	Lawrence's goldfinch
Carduelis psaltria	lesser goldfinch
Family Hirundinidae	
Petrochelidon pyrrhonota	cliff swallow
Family Icteridae	
Molothrus ater	brown-headed cowbird
Sturnella neglecta	western meadowlark
Family Mimidae	
Toxostoma redivivum	California thrasher
Family Odontophoridae	
Callipepla californica	California quail
Family Paridae	
Baeolophis inomatus	oak titmouse
Family Parulidae	
Dendroica coronata	yellow-rumped warbler

Scientific Name	Common Name
Wilsonia pusilla	Wilson's warbler
Family Picidae	
Colaptes auratus	northern flicker
Picoides nuttallii	Nuttall's woodpecker
Melanerpes formicivores	acorn woodpecker
Family Sittidae	·
Sitta carolinensis	white-breasted nuthatch
Family Stumidae	
Stumas vulgaris	European starling
Family Sylviidae	1 3
Chamaea fasciata	wrentit
Polioptila caerulea	blue-gray gnatcatcher
Family Turidae	and gray grant and
Sialia mexicana	western bluebird
Family Trochilidae	
Calypte anna	Anna's hummingbird
Family Troglodytidae	3
Thryomanes bewickii	Bewick's wren
Troglodytes aedon	house wren
Family Tyrannidae	
Empidonax difficilis	Pacific slope flycatcher
Myiarchus cinerascens	ash-throated flycatcher
Sayornis nigricans	black phoebe
Tyrannus verticulis	western kingbird
Family Vireoniidae	<u> </u>
Vireo gilvus	warbling vireo
Vireo huttoni	Hutton's vireo
MAMMALS	
Order Carnivora	Carnivores
Family Canidae	
Canis latrans	coyote
Family Felidae	
Puma concolor	mountain lion
Lynx rufus	bobcat
Family Cervidae	
Odocoileus hemionus	mule deer
Order Lagomorpha	Rabbits, Hares, and Pikas
Family Leporidae	
Lepus californicus bennettii	San Diego black-tailed jackrabbit
Sylvilagus audubonii	cottontail
Family Sciuridae	Squirrels, Rats, Mice, and Relatives
Spermorphilus beecheyi	California ground squirrel
Family Geomyidae	Camornia ground squirter
Thomomys bottae	Botta's pocket gopher
Family Muridae	Botta 3 pocket gopilei
Neotoma fuscipes	woodrat
rveotoma ruscipes	woodiat

boldface = a sensitive species

APPENDIX F 24-HOUR NOTIFICATION LETTERS TO USFWS

APPENDIX F.1 04/08/2010 24-HOUR NOTIFICATION LETTER TO USFWS



AECOM 1420 Kettner Boulevard Suite 500 San Diego, CA 92101 www.aecom.com 619.233.1454 tel 619.233.0952 fax

April 09, 2010

Ms. Sandra Marquez Recovery Permit Coordinator Carlsbad Fish and Wildlife Office 6010 Hidden Valley Road, Suite 101 Carlsbad, California 92011

RE: Notification of the First Quino Checkerspot Butterfly Observation for the Campo Wind Energy Project, San Diego County, California

Dear Ms. Marquez:

AECOM is submitting this notification letter to inform you that three Quino checkerspot butterfly (*Euphydryas editha quino*; Quino) individuals were observed at the proposed Campo Wind Energy project site in southeastern San Diego County, California (Figures 1 and 2). On April 08, 2010, AECOM biologists Andrew Fisher and Jimmy McMorran (both supervised under permit number TE-820658) made the observation during a reconnaissance level survey for avian point count locations. Although the project site exists within U.S. Fish and Wildlife (USFWS) Quino Survey Area 2, Mr. Fisher and Mr. McMorran did not collect the specimen for identification according to the USFWS protocol (2002), per the pre-activity notification letter submitted for the proposed project on March 12, 2010. Additionally, both Mr. Fisher and Mr. McMorran are not individually permitted. The sightings are detailed below.

A total of three distinctly unique Quino individuals were detected and observed during the period of 12:40 to 13:15. All three were observed within 100 feet of each other, in open/red-shank chaparral habitat largely dominated by ceanothus (*Ceanothus* sp.), chamise (*Adenostoma fasciculatum*), with sparsely scattered coast live oak trees (*Quercus agrifolia*) (Photos 1 and 2). Weather consisted of clear skies, winds of 1-3 mph blowing from the east/southeast, and a temperature of 68 degrees Fahrenheit.

One female Quino was observed by Mr. Fisher and Mr. McMorran resting on buckwheat (*Eriogonum fasciculatum*) at 12:40 (Photos 3 and 4). This first Quino had a small nick in its right forewing, but otherwise appeared in a fresh condition. Mr. Fisher and Mr. McMorran observed it resting on the same buckwheat shrub for approximately 10 minutes. The second Quino was observed within 50 feet of the first Quino, basking on the trail. This Quino appeared to be somewhat worn and more faded than the first Quino, and quickly took flight after a few photos were taken from a distance (Photos 5 and 6). A third Quino was detected in close proximity to the second Quino, nectaring on baby blue eyes (*Nemophila menziesii*). It was also a fresh individual, and was noticeably smaller than the first fresh Quino detected. This individual also took quickly took flight after Mr. Fisher was able to take photographs from a distance (Photo 7).

This letter is official notification of this sighting and capture as required by the USFWS protocol for this species. Following this transmittal, a hard copy of this letter including maps will be sent as well. If you have any questions or comments, please contact me at (619) 233-1454.

Sincerely,

Barbra Calantas Wildlife Biologist

Enclosures: Figure 1 Regional Map

Figure 2 Vicinity Map

Figure 3 Quino Observation Location Map

cc: Eric Porter, USFWS

Alison Anderson, USFWS Kelly Meyer, Invenergy

Monique LaChappa, Chairwoman, Campo Kumeyaay Nation

Deanna Leon, President, Muht-Hei Inc.

Lisa Gover, Campo EPA

Denise Turner Walsh, Campo Tribal Attorney

Photo 1



Photo 2



Photo 3



Photo 4



Photo 5

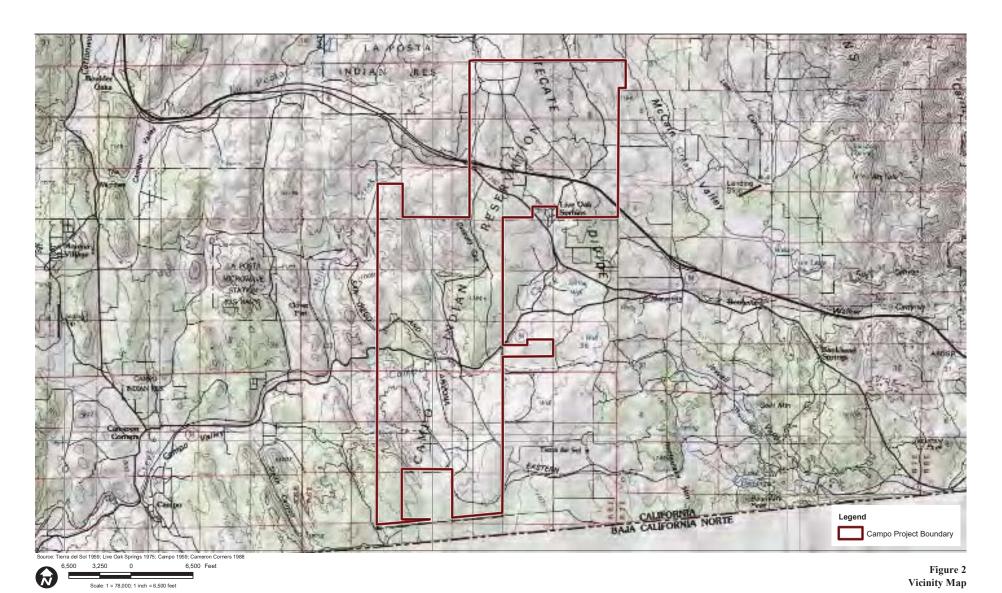


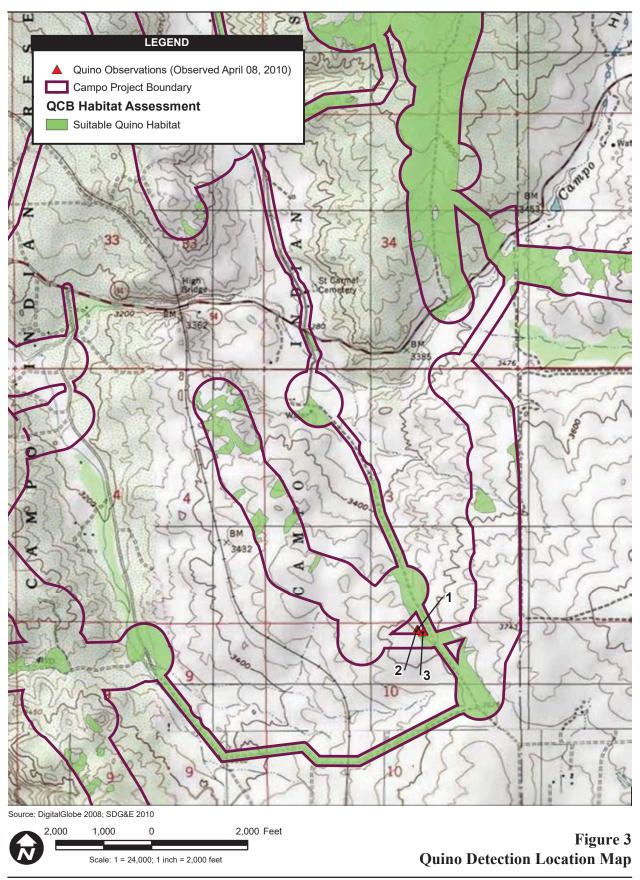
Photo 6



Photo 7







APPENDIX F.2 04/09/2010 24-HOUR NOTIFICATION LETTER TO USFWS



619.233.1454 tel 619.233.0952 fax

April 12, 2010

Ms. Sandra Marquez Recovery Permit Coordinator Carlsbad Fish and Wildlife Office 6010 Hidden Valley Road, Suite 101 Carlsbad, California 92011

RE: Notification of the Second Quino Checkerspot Butterfly Observation for the Campo Wind Energy Project, San Diego County, California

Dear Ms. Marquez:

AECOM is submitting this notification letter to inform you that two Quino checkerspot butterfly (*Euphydryas editha quino*; Quino) individuals were observed at the proposed Campo Wind Energy project site in southeastern San Diego County, California (Figures 1 and 2). On April 09, 2010, David Flietner (TE-008031), a sub-contractor to AECOM and AECOM biologist Erin Bergman (supervised under permit number TE-820658) made the observation during a protocol Quino survey. Although the project site exists within U.S. Fish and Wildlife (USFWS) Quino Survey Area 2, Mr. Flietner and Ms. Bergman did not collect the specimen for identification according to the USFWS protocol (2002), per the pre-activity notification letter submitted for the proposed project on March 12, 2010. The sighting is detailed below.

Two Quino were observed approximately 500 feet southwest of BIA Road 15 on the Campo Reservation (UTM 11S easting:0559472 northing:3612756) (Figure 3) by Mr. Flietner and Ms. Bergman from 13:00 – 13.15. The Quino were detected on an unused or little-used dirt road, an adjacent embankment, and in adjacent open chaparral. The Quino were basking (separately) on open sandy soil within the roadway; as Flietner and Bergman approached to take pictures, the butterflies would fly short distances and alight in other open areas, returning periodically to the same general locations where they were originally observed. Both Quino were in excellent condition, and both observers clearly detected diagnostic markings (abdominal and wing markings; wing shape) on both butterflies. Photos 1 and 2 provide the best images of the butterflies; Photo 3 shows the habitat within the roadway where the Quino alighted.

The surrounding vegetation contains less than 10% shrub cover, consisting of *Adenostoma fasciculata, Rhus ovata, Ceanothus greggii* (in flower), and *Cercocarpus betuloides*; a denser stand dominated by *Adenostoma sparsifolium* begins about 50 feet west of the observation point. *Lotus scoparius*, young *Eriogonum fasiculatum* and *Corethrogyne filaginifolia* provide about 20% low (1 – 2 feet tall) cover. Less than 10% herbaceous cover is provided by seedlings of *Erodium cicutarium*, *Brassica* sp., as well as nectar sources *Plagiobotrys* sp.,

Lasthenia californica, and Dichelostema capitatum, which were non-blooming or in early bloom (with most flowers unopened).

This letter is official notification of this sighting and capture as required by the USFWS protocol for this species. Following this transmittal, a hard copy of this letter including maps will be sent as well. If you have any questions or comments, please contact me at (619) 233-1454.

Sincerely,

Barbra Calantas Wildlife Biologist

Enclosures: Figure 1 Regional Map

Figure 2 Vicinity Map

Figure 3 Quino Observation Location Map

cc: Eric Porter, USFWS

Alison Anderson, USFWS Kelly Meyer, Invenergy

Monique LaChappa, Chairwoman, Campo Kumeyaay Nation

Deanna Leon, President, Muht-Hei Inc.

Lisa Gover, Campo EPA

Photo 1

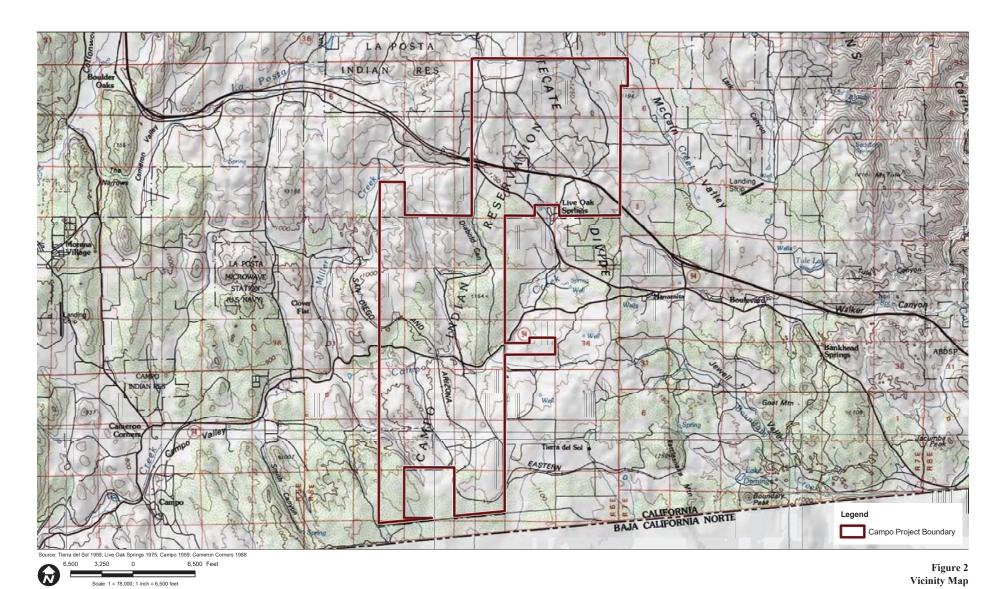


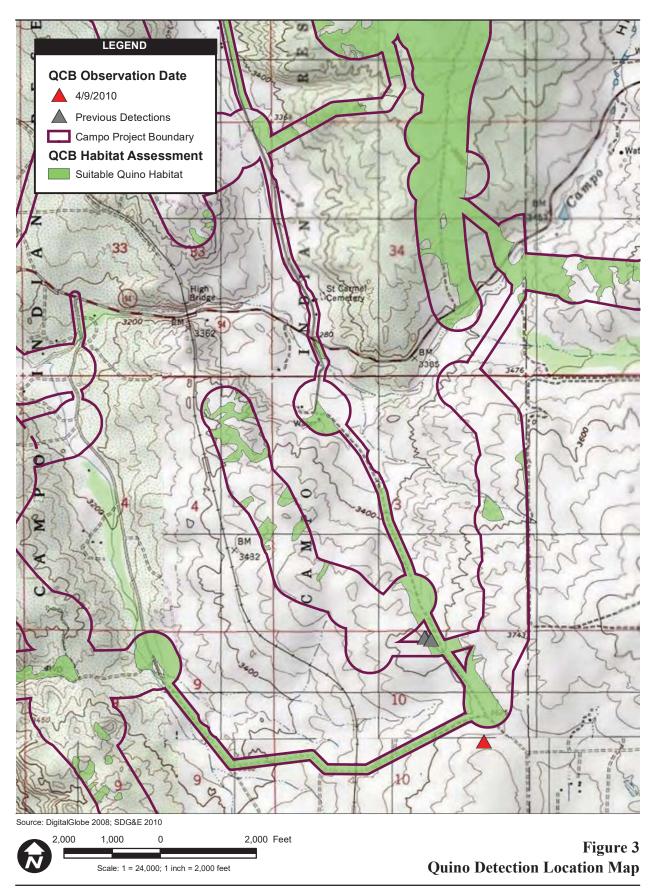
Photo 2



Photo 3







APPENDIX F.3 04/13/2010 24-HOUR NOTIFICATION LETTER TO USFWS



619.233.1454 tel 619.233.0952 fax

April 14, 2010

Ms. Sandra Marquez Recovery Permit Coordinator Carlsbad Fish and Wildlife Office 6010 Hidden Valley Road, Suite 101 Carlsbad, California 92011

RE: Notification of the Third Quino Checkerspot Butterfly Observation for the Campo Wind Energy Project, San Diego County, California

Dear Ms. Marquez:

AECOM is submitting this notification letter to inform you that another Quino checkerspot butterfly (*Euphydryas editha quino*; Quino) individual was observed at the proposed Campo Wind Energy project site in southeastern San Diego County, California (Figures 1 and 2). On April 13, 2010, Consulting Biologist Michael Couffer (permit number TE-782703-8), subcontractor to AECOM observed a Quino within the project's boundaries during protocol surveys for the species. Although the project site exists within U.S. Fish and Wildlife (USFWS) Quino Survey Area 2, Mr. Couffer did not collect the specimen for identification according to the USFWS protocol (2002), per the pre-activity notification letter submitted for the proposed project on April 2, 2010. The sighting is detailed below.

At 10:30, Mr. Couffer observed a Quino warming itself on bare ground on a hilltop immediately north of Interstate 8, and east of Crestwood Road, at (NAD 83) 11S 0560363, 3619015, at approximately 4295 feet in elevation. Weather at the time was approximately 58 degrees Fahrenheit, with wind speeds around 3 mph and sunny, clear skies. The Quino detected was somewhat drab, with limited fraying of wing edges (Photo 1 and Photo 2). At 12:36 hours, a return visit to the hilltop revealed that this Quino had moved only 8 feet from its initial location. No other Quinos were observed by Mr. Couffer on this date.

This letter is official notification of this sighting and capture as required by the USFWS protocol for this species. Following this transmittal, a hard copy of this letter including maps will be sent as well. If you have any questions or comments, please contact me at (619) 233-1454.

Sincerely,

Barbra Calantas Wildlife Biologist Enclosures: Figure 1 Regional Map

Figure 2 Vicinity Map

Figure 3 Quino Observation Location Map

cc: Eric Porter, USFWS Alison Anderson, USFWS Kelly Meyer, Invenergy

Monique LaChappa, Chairwoman, Campo Kumeyaay Nation

Deanna Leon, President, Muht-Hei Inc.

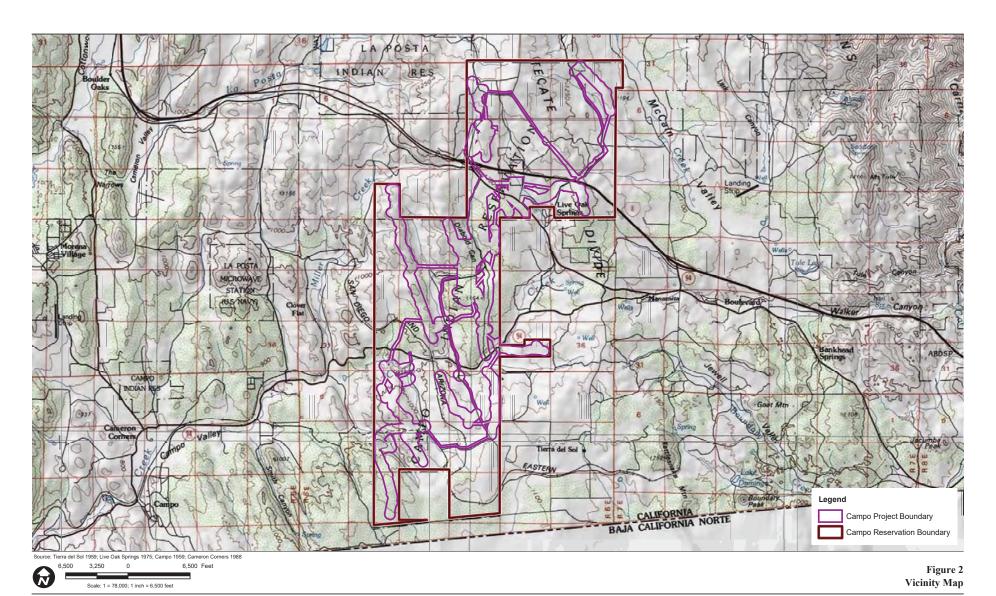
Lisa Gover, Campo EPA

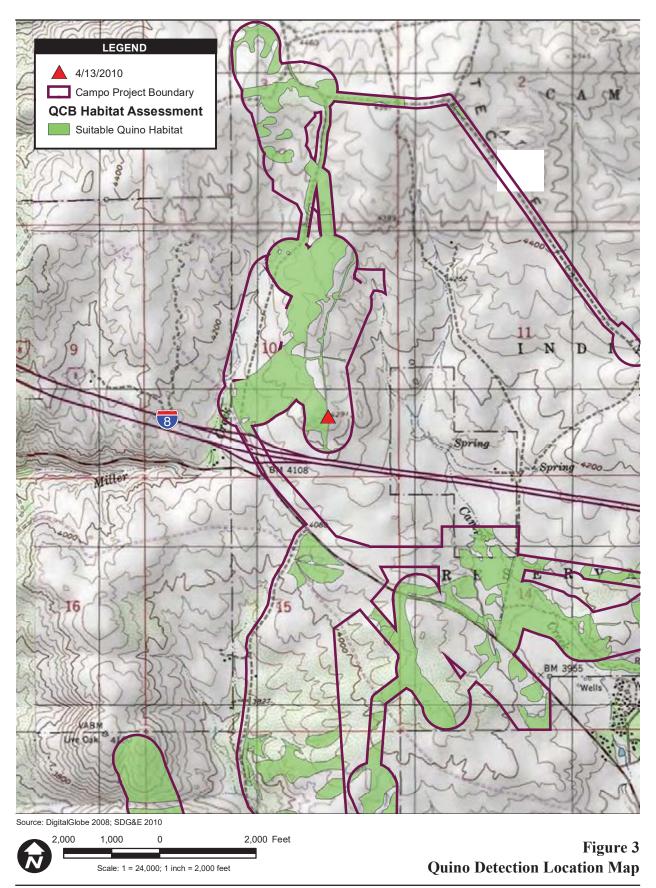
Photo 1



Photo 2







APPENDIX F.4 04/15/2010 24-HOUR NOTIFICATION LETTER TO USFWS



619.233.1454 tel 619.233.0952 fax

April 16, 2010

Ms. Sandra Marquez Recovery Permit Coordinator Carlsbad Fish and Wildlife Office 6010 Hidden Valley Road, Suite 101 Carlsbad, California 92011

RE: Notification of the Fourth and Fifth Quino Checkerspot Butterfly Observations for the Campo Wind Energy Project, San Diego County, California

Dear Ms. Marquez:

AECOM is submitting this notification letter to inform you that additional Quino checkerspot butterfly (*Euphydryas editha quino*; Quino) individuals were observed at the proposed Campo Wind Energy project site in southeastern San Diego County, California (Figures 1 and 2). The fourth Quino observation for this project consisted of two observations on April 15, 2010 and the fifth Quino observation took place on April 16, 2010. On April 15, 2010, AECOM biologists Andrew Fisher and Jimmy McMorran (both supervised under permit number TE-820658-4) incidentally observed two Quino individuals during avian surveys. On the same day, Ken Osborne (permit number TE-837760-6), sub-contractor to AECOM, observed two Quino individuals adjacent to the project's boundaries en route to the project survey area, during protocol surveys for the species. On April 16, 2010, AECOM biologist Bonnie Hendricks (TE-820658-4) observed one Quino within project boundaries. Although the project site exists within U.S. Fish and Wildlife (USFWS) Quino Survey Area 2, these biologists did not collect the specimen for identification according to the USFWS protocol (2002), per the pre-activity notification letter submitted for the proposed project on March 12, 2010. The sightings are detailed below.

On April 15, Mr. Fisher observed a Quino individual at 10:15, at UTM coordinates 11S 0559952, 3609757 (Figure 3a, Quino 1). Weather consisted of clear skies with temperatures of 64.4 degrees Fahrenheit with wind speeds of 3.3 mph blowing from the northeast. The Quino had was identified by its characteristic black abdomen with orange bands, and had worn wings. Prior to Mr. Fisher taking a photograph, the wind blew the Quino away. The habitat in the vicinity of the area consisted of semi-open buckwheat scrub intermixed with scrub oak and chamise (Photo 1). The main nectar source in the area was popcorn flower (*Plagiobotrys* sp.) with few other nectar species present. At 13:15, Mr. Fisher and Mr. McMorran observed another Quino in an area where they both previously detected Quino on April 8, 2010 at UTM coordinates 11S 0560211, 3610530 (Figure 3a, Quino 2). This individual was in a worn condition with slight fraying of wing edges (Photo 2). It was observed nectaring on baby blue eyes (*Nemophila menziesii*). Weather was about 72 degrees Fahrenheit, wind was 3.5 mph on average, and gusted up to 8 mph, with overcast skies.

On April 15, another observation was made by Mr. Osborne. From 15:48 to 15:57, Mr. Osborne was walking towards his vehicle after completing surveys for the day and observed two Quino males adjacent to the project area boundaries (Figure 3b, Quino 3 and 4). These Quino were found at UTM coordinates 11S 0562198, 3617293 and 11S 0562881, 3617289. Following a cleared firebreak along a ridgeline east of the community of Live Oak Springs, Mr. Osborne encountered these two males hilltopping. These butterflies were alternately basking on the ground and very actively chasing or being chased by other butterflies such as *Vanessa carduii* and *Euchloe hyantis*. This prominent, rounded hilltop they were detected is also cleared by the firebreak. Both Quino were in a worn condition, faded in color, but with no nicks or tears in the wings. Photographs were taken, but will be provided at a later date.

The fifth Quino observation for the project was made by Ms. Hendricks on April 16. Ms. Hendricks observed one Quino at 10:10 within the project area at UTM coordinates 11S 0557013, 3610034 (Figure 3c, Quino 5). Weather consisted of clear, sunny skies, with a temperature of 71.5 degrees Fahrenheit and wind speeds of 1.7 mph. This Quino was fresh and crisp. It was detected within mixed chaparral habitat dominated by chamise (*Adenostoma fasciculatum*) and mountain mahogany (*Cercocarpus* sp.). Ms. Hendricks attempted to take a photo of the Quino but was not able to prior to it taking flight.

This letter is official notification of this sighting and capture as required by the USFWS protocol for this species. Following this transmittal, a hard copy of this letter including maps will be sent as well. If you have any questions or comments, please contact me at (619) 233-1454.

Sincerely,

Barbra Calantas Wildlife Biologist

Enclosures: Figure 1 Regional Map

Figure 2 Vicinity Map

Figures 3a, 3b, 3c Quino Observation Location Maps

cc: Eric Porter, USFWS

Alison Anderson, USFWS

Kelly Meyer, Invenergy

Monique LaChappa, Chairwoman, Campo Kumeyaay Nation

Deanna Leon, President, Muht-Hei Inc.

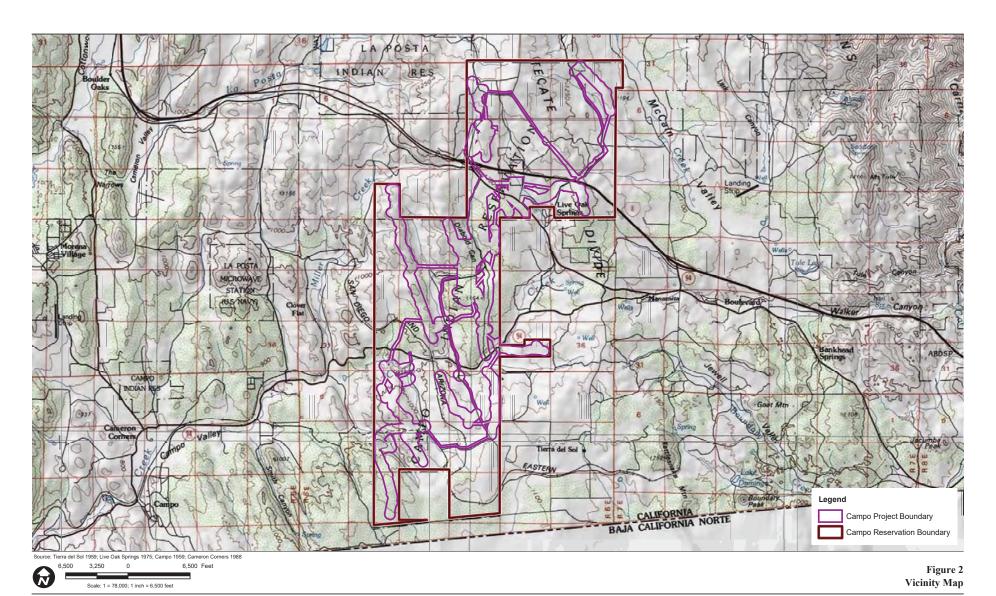
Lisa Gover, Campo EPA

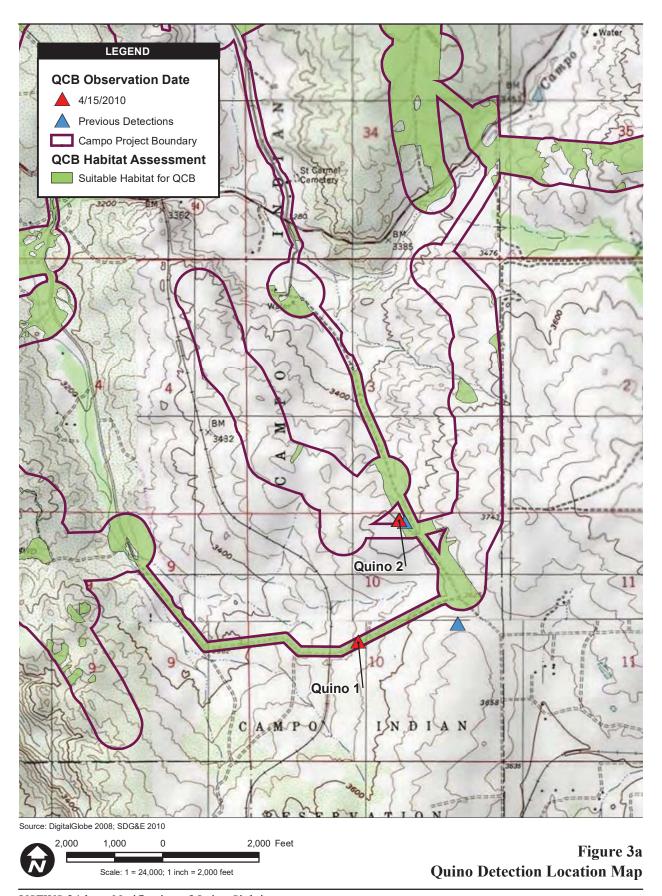
Photo 1

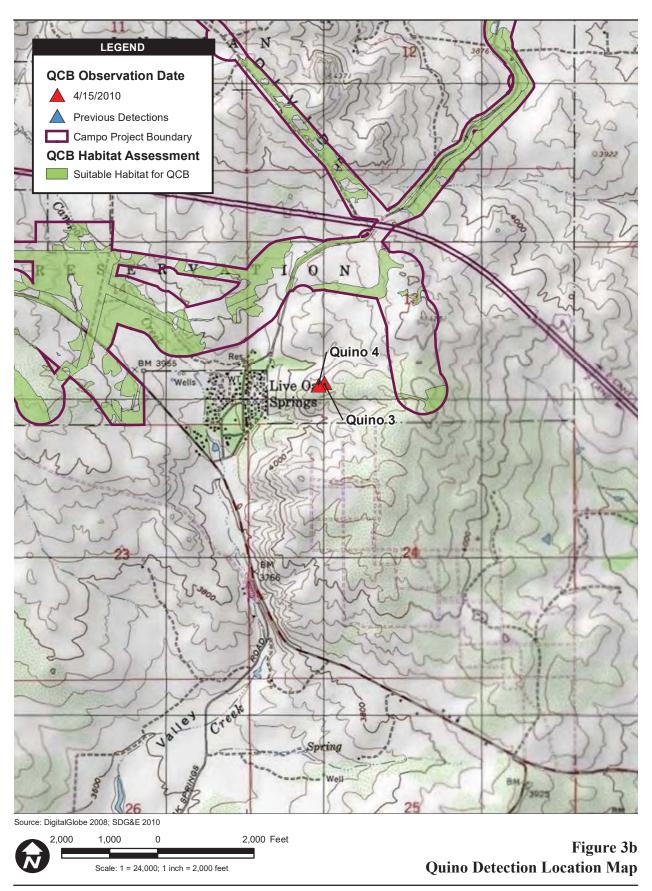


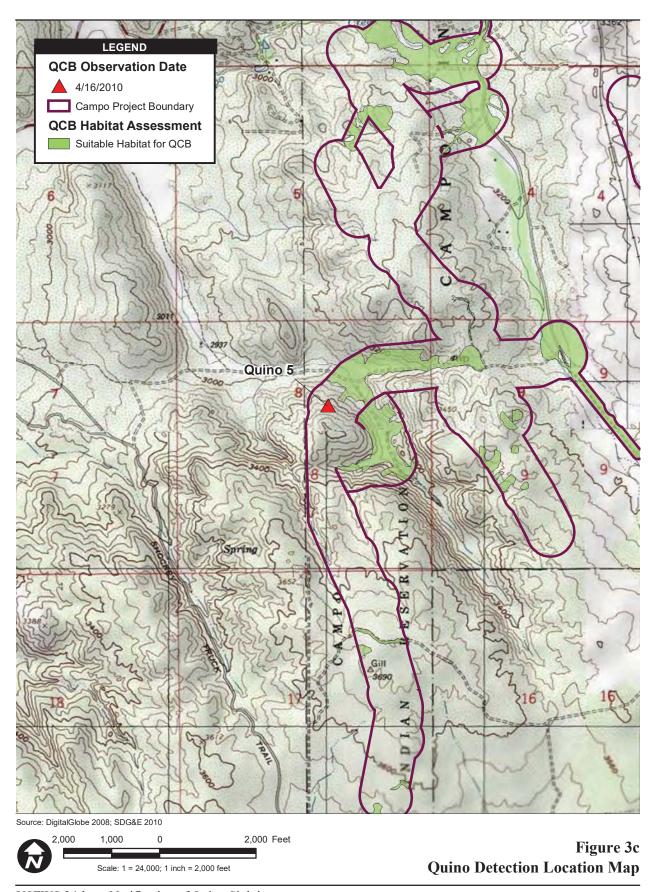
Photo 2











APPENDIX F.5 04/19/2010 24-HOUR NOTIFICATION LETTER TO USFWS



619.233.1454 tel 619.233.0952 fax

April 19, 2010

Ms. Sandra Marquez Recovery Permit Coordinator Carlsbad Fish and Wildlife Office 6010 Hidden Valley Road, Suite 101 Carlsbad, California 92011

RE: Notification of the Sixth Quino Checkerspot Butterfly Observation at the Manzanita Wind Energy Project, San Diego County, California

Dear Ms. Marquez:

AECOM is submitting this notification letter to inform you that two additional Quino checkerspot butterflies (*Euphydryas editha quino*; Quino) were observed immediately adjacent to the proposed Campo Wind Energy project site in southeastern San Diego County, California. On April 19, 2010, Consulting Biologist Michael Couffer (permit number TE-782703-8), subcontractor to AECOM observed two Quino within the Campo Reservation boundaries during protocol surveys for the species. Although the project site exists within U.S. Fish and Wildlife (USFWS) Quino Survey Area 2, Mr. Couffer did not collect the specimen for identification according to the USFWS protocol (2002), per the pre-activity notification letter submitted for the proposed project on April 2, 2010. The sighting is detailed below.

At 13:45 hours, Mr. Couffer observed two Quinos interacting along the eastern fenced border for the Campo Indian Reservation, adjacent to the Campo Wind Energy project's study area. One Quino was observed chasing another Quino across the reservation border fence and entering reservation land at (NAD 83) 11 South 0562494, 3612598, and 0562502, 3612603 (Figure 3). The elevation was approximately 3,730 feet above lower mean sea level. This location was south of SR 94 (Campo Road), east of the north to south-running portion of Shasta Way, north of the east to west-running portion of Shasta Way, and immediately west of Camino del Monte.

One active male Quino chased a second Quino up and down the reservation border road twice, and then onto reservation land at the above coordinates. The Quino being chased appeared to be in good condition, but was not photographed. The active male Quino kept to a patch of bare ground and scattered popcornflower (*Plagiobothrys* sp.), where it chased all other butterflies and bee flies passing overhead. The two attached photos are of the same individual, which was somewhat drab and had tears in the wings (Photos 1 and 2).

This letter is official notification of this sighting and capture as required by the USFWS protocol for this species. Following this transmittal, a fax and a hard copy of this letter including maps will

be sent as well. If you have any questions or comments, please contact me at (619) 233-1454.

Sincerely,

Barbra Calantas Wildlife Biologist

Enclosures: Figure 1 Regional Map

Figure 2 Vicinity Map

Figure 3 Quino Observation Location Map

cc: Eric Porter, USFWS

Alison Anderson, USFWS Kelly Meyer, Invenergy

Monique LaChappa, Chairwoman, Campo Kumeyaay Nation

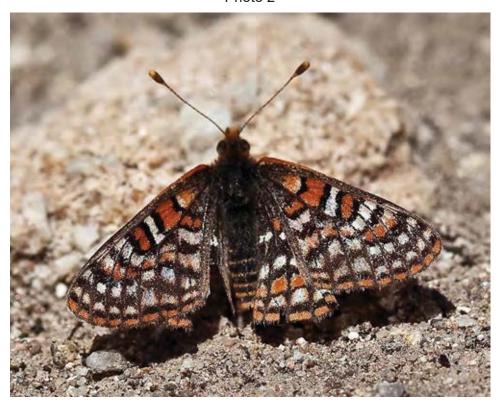
Deanna Leon, President, Muht-Hei Inc.

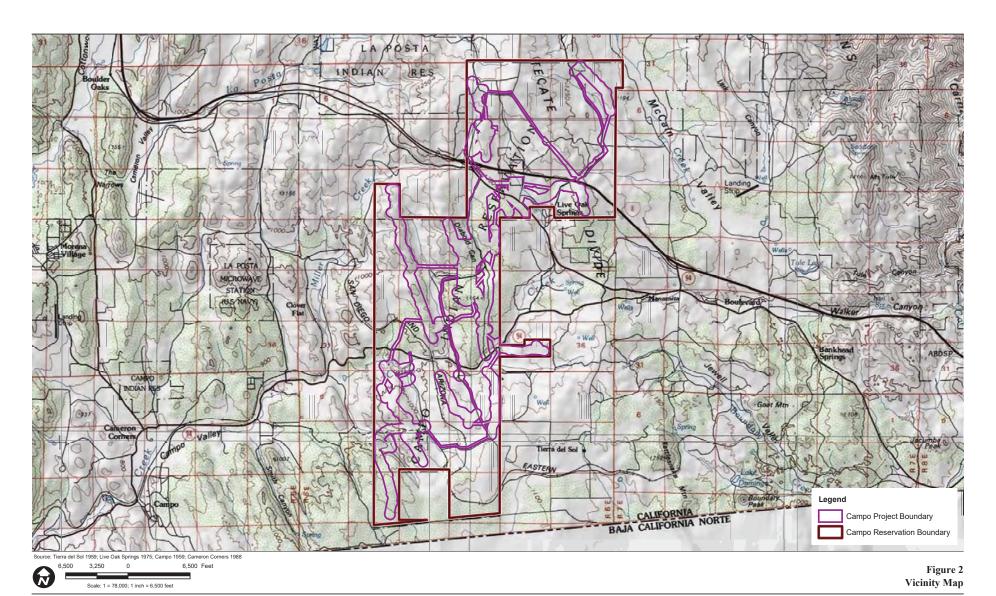
Lisa Gover, Campo EPA

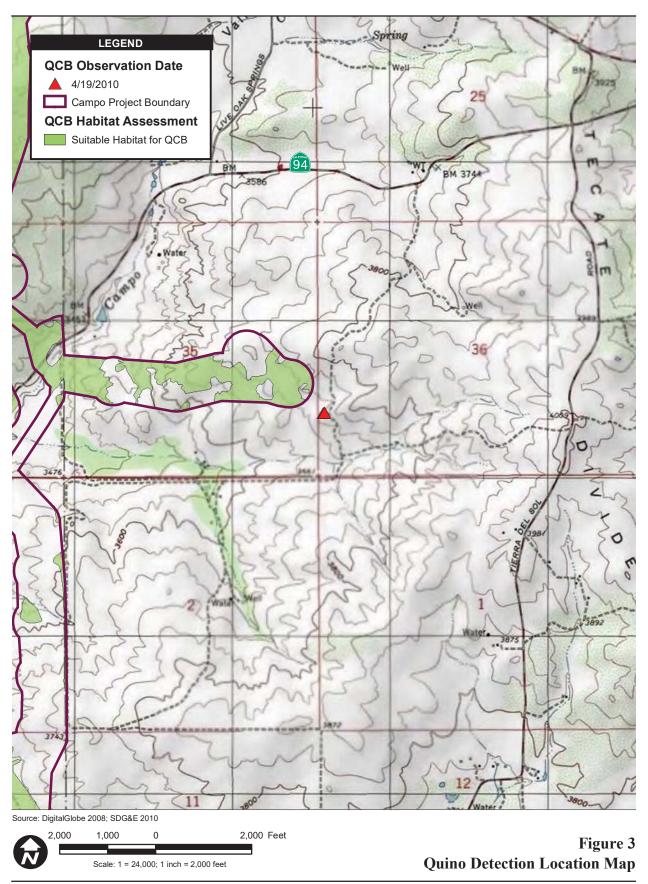
Photo 1



Photo 2







APPENDIX F.6 04/24/2010 24-HOUR NOTIFICATION LETTER TO USFWS



619.233.1454 tel 619.233.0952 fax

April 26, 2010

Ms. Sandra Marquez Recovery Permit Coordinator Carlsbad Fish and Wildlife Office 6010 Hidden Valley Road, Suite 101 Carlsbad, California 92011

RE: Notification of the Seventh Quino Checkerspot Butterfly Observation at the Campo Wind Energy Project, San Diego County, California

Dear Ms. Marquez:

AECOM is submitting this notification letter to inform you that an additional Quino checkerspot butterfly (*Euphydryas editha quino*; Quino) was observed within the proposed Campo Wind Energy project site in southeastern San Diego County, California. On April 24, 2010, Consulting Biologist Michael Couffer (permit number TE-782703-8), sub-contractor to AECOM observed a Quino during protocol surveys for the species. Although the project site exists within U.S. Fish and Wildlife (USFWS) Quino Survey Area 2, Mr. Couffer did not collect the specimen for identification according to the USFWS protocol (2002), per the pre-activity notification letter submitted for the proposed project on April 2, 2010. The sighting is detailed below.

At 13:20 hours, Mr. Couffer observed one Quino approximately 1,312 feet south of Old Highway 80, south of the Golden Acorn Casino, at (NAD 83) 11S 0560710, 3617216 (Figure 3). This location is east of Church Road. The Quino was observed at approximately 4030 feet above lower mean sea level. The species was verified with binoculars, but was not photographed. After the Quino was flushed off bare ground, it landed on a 3-inch-tall popcornflower (*Plagiobothrys* sp.). While approaching closer to photograph the butterfly, it flushed and flew into moderate density chamise chaparral, and was not found again. This was a well-worn, drab individual, that had worn wing edges and faded abdomen stripes.

The butterfly was found on an old, unused dirt road that ran north to south. Because the prevailing winds in the area blow either from the east or from the west, shrubs deflect the wind over the road, causing a long dead air space with abundant bare ground and scattered popcornflowers (Photos 1 and 2). If the road had been oriented east to west, the prevailing winds would blow right down the road much of the time. Photos 1 and 2 are provided in order to attempt to illustrate the quality of this old dirt road as high quality Quino habitat.

This letter is official notification of this sighting and capture as required by the USFWS protocol for this species. Following this transmittal, a fax and a hard copy of this letter including maps will be sent as well. If you have any questions or comments, please contact me at (619) 233-1454.

Sincerely,

Barbra Calantas Wildlife Biologist

Enclosures: Figure 1 Regional Map

Figure 2 Vicinity Map

Figure 3 Quino Observation Location Map

cc: Eric Porter, USFWS

Alison Anderson, USFWS Kelly Meyer, Invenergy

Monique LaChappa, Chairwoman, Campo Kumeyaay Nation

Deanna Leon, President, Muht-Hei Inc.

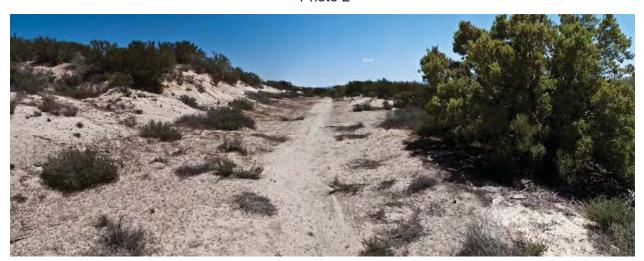
Lisa Gover, Campo EPA

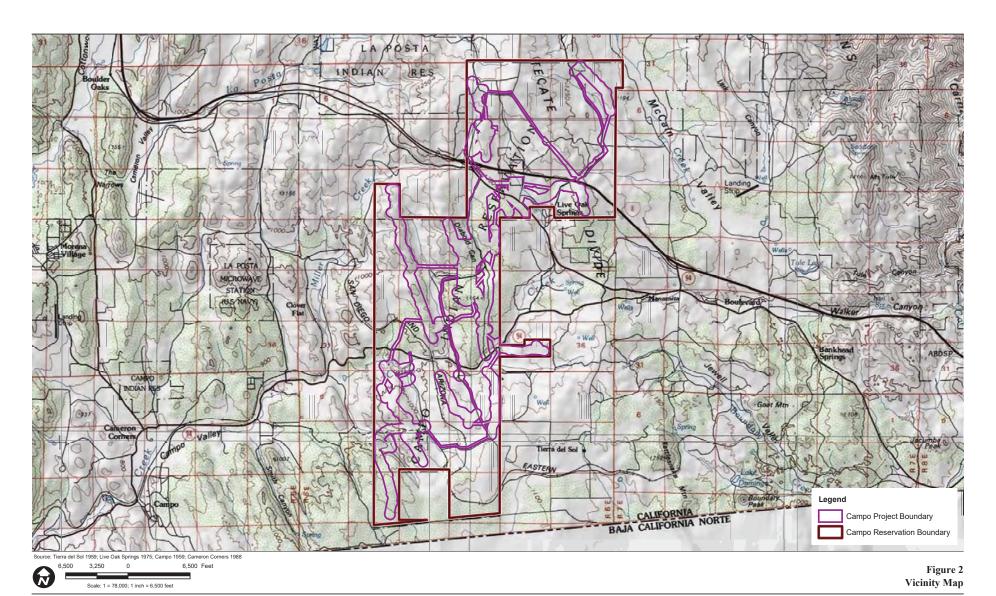
Denise Turner Walsh, Campo Tribal Attorney

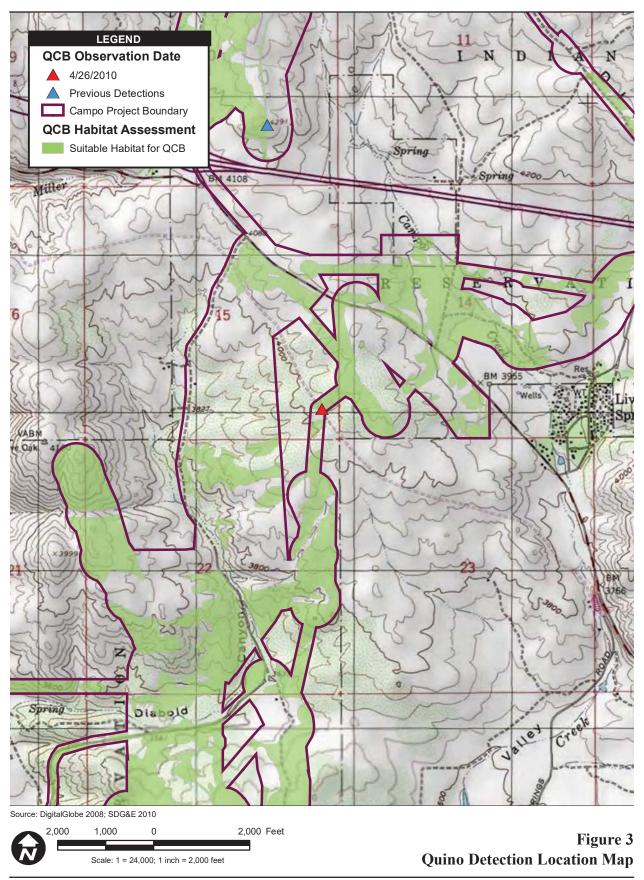
Photo 1



Photo 2







APPENDIX F.7 04/26/2010 24-HOUR NOTIFICATION LETTER TO USFWS



619.233.1454 tel 619.233.0952 fax

April 27, 2010

Ms. Sandra Marquez Recovery Permit Coordinator Carlsbad Fish and Wildlife Office 6010 Hidden Valley Road, Suite 101 Carlsbad, California 92011

RE: Notification of the Eighth Quino Checkerspot Butterfly Observation at the Campo Wind Energy Project, San Diego County, California

Dear Ms. Marquez:

AECOM is submitting this notification letter to inform you that an additional Quino checkerspot butterfly (*Euphydryas editha quino*; Quino) was observed on the proposed Campo Wind Energy project site in southeastern San Diego County, California. On April 26, 2010, Consulting Biologist Michael Couffer (permit number TE-782703-8), sub-contractor to AECOM observed one Quino within the Campo Reservation boundaries during protocol surveys for the species. Although the project site exists within U.S. Fish and Wildlife (USFWS) Quino Survey Area 2, Mr. Couffer did not collect the specimen for identification according to the USFWS protocol (2002), per the pre-activity notification letter submitted for the proposed project on April 2, 2010. The sighting is detailed below.

At 14:13 hours, Mr. Couffer observed one Quino at (NAD 83) 11 South 0560671, 3611605 (Figure 3). The elevation was approximately 3,564 feet above lower mean sea level. This location was south of SR 94 (Campo Road), east of Church Road, northwest of Vista del Cielo, and southwest of Shasta Way. The Quino was not brightly colored but was also not worn, it looked to be in an "in-between" condition. The Quino took flight during an attempt to photograph it.

The Quino was within an extensive sandy inclusion of low density southern mixed chaparral, surrounded on 3 sides by high density chaparral (Photo 1). Nectar sources such as popcornflower were abundant. Large fields of Lasthenia sp. were also present. Collinsia concolor was found to be widely scattered in the area, often growing within buckwheat shrubs (Photo 2).

This letter is official notification of this sighting and capture as required by the USFWS protocol

for this species. Following this transmittal, a fax and a hard copy of this letter including maps will be sent as well. If you have any questions or comments, please contact me at (619) 233-1454.

Sincerely,

Barbra Calantas Wildlife Biologist

Enclosures: Figure 1 Regional Map

Figure 2 Vicinity Map

Figure 3 Quino Observation Location Map

cc: Eric Porter, USFWS

Alison Anderson, USFWS Kelly Meyer, Invenergy

Monique LaChappa, Chairwoman, Campo Kumeyaay Nation

Deanna Leon, President, Muht-Hei Inc.

Lisa Gover, Campo EPA

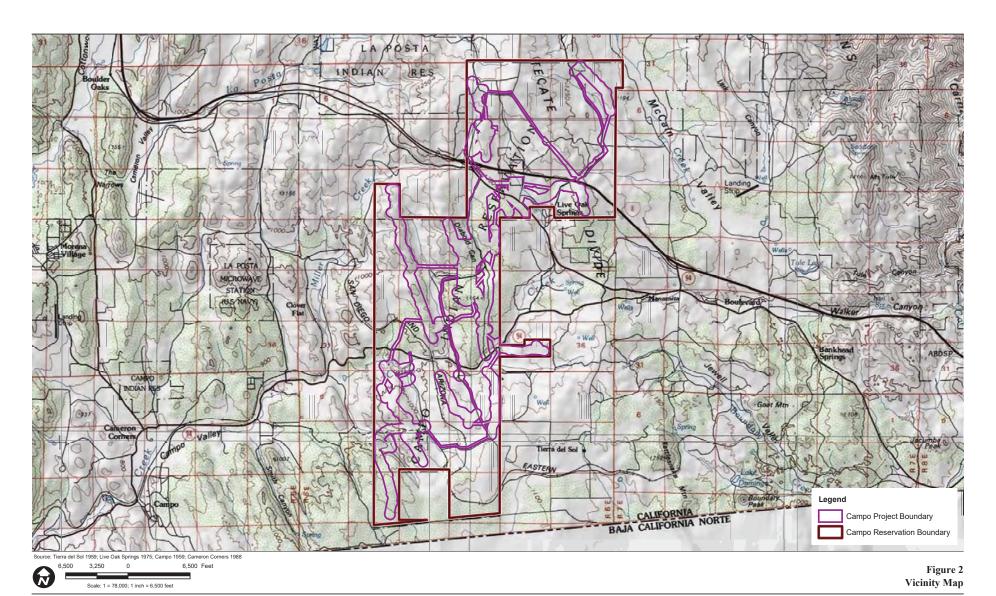
Denise Turner Walsh, Campo Tribal Attorney

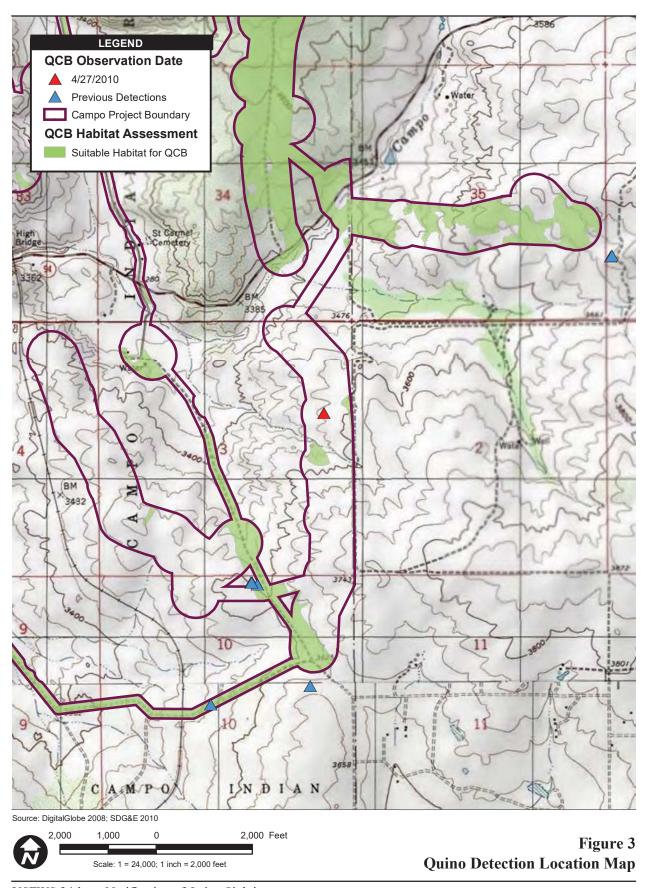




Photo 2







APPENDIX F.8 04/27/2010 24-HOUR NOTIFICATION LETTER TO USFWS



619.233.1454 tel 619.233.0952 fax

April 29, 2010

Ms. Sandra Marquez Recovery Permit Coordinator Carlsbad Fish and Wildlife Office 6010 Hidden Valley Road, Suite 101 Carlsbad, California 92011

RE: Notification of the Ninth Quino Checkerspot Butterfly Observation at the Campo Wind Energy Project, San Diego County, California

Dear Ms. Marquez:

AECOM is submitting this notification letter to inform you that additional Quino checkerspot butterfly (*Euphydryas editha quino*; Quino) individuals were observed on the proposed Campo Wind Energy project site in southeastern San Diego County, California. On April 27, 2010, consulting biologists Michael Couffer (permit number TE-782703-8), and Dale Powell (permit number TE-006559-4), sub-contractors to AECOM, observed four Quino individuals within the Campo Reservation boundaries during protocol surveys for the species. Also, AECOM biologist Andrew Fisher (supervised under TE-820658-4) observed one of Mr. Couffer's Quino at a separate time, independent of Mr. Couffer. Although the project site exists within U.S. Fish and Wildlife (USFWS) Quino Survey Area 2, Mr. Couffer, Mr. Powell, and Mr. Fisher did not collect the specimens for identification according to the USFWS protocol (2002), per the pre-activity notification letter submitted for the proposed project on April 2, 2010. Additionally, Mr. Fisher is not currently independently authorized for Quino. The sightings are detailed below.

At 12:40 hours, Mr. Couffer observed one Quino nectaring on white layia (*Layia glandulosa*) at (NAD 83) 11 South 0556986, 3609928 (Figure 3; Quino 1), at approximately 3,382 feet above lower mean sea level. The tip of the upper right forewing tip was gone, and this butterfly was drab, but still a strong flyer, and flew off before a photo could be taken. However, earlier that morning at 11:45, Mr. Fisher observed what is highly likely the same Quino 1 that Mr. Couffer while he was conducing an avian survey. Mr. Fisher's Quino was in the same exact location and fit the same physical description as Mr. Couffer's Quino (Photo 1).

At 14:45 hours, Mr. Couffer observed a second Quino was observed nectaring on white layia adjacent to this location at (NAD 83) 11 South 0556995, 3609943 (Figure 3, Quino 2), at approximately 3,372 feet above lower mean sea level. This Quino was a bit drab, and the tip of the upper right wing was intact (Photo 2). The intact wingtip proved that this was a different individual from the Quino previously observed.

From 15:40 to 15:47 hours, Mr. Couffer observed a third Quino. He followed and photographed

it as it nectared on white layia at (NAD 83) 11 South 0557077, 3610140 (Figure 3, Quino 3), at approximately 3,127 feet above lower mean sea level. This Quino lacked the sharp contrast of a newly-emerged individual, but its wing edges were nearly perfect, and it appeared to be in good condition (Photo 3).

At 12:27 hours, Mr. Powell observed a Quino while conducting protocol level surveys when he coincidentally ran into Mr. Fisher in the field. This Quino was found in similar habitat with the same nectar sources abundant, at location (NAD 83) 11 South 0557051, 3610098 (Figure 3, Quino 4). This Quino was in a worn condition, and looked different than the other three Quino previously detected by Mr. Couffer (Photo 4).

The first two Quinos found by Mr. Couffer were found immediately below the crown of a hilltop that rises from approximately 3,000 feet to 3,400 feet in elevation in open chaparral habitat (Photos 5 and 6). The third Quino Mr. Couffer detected was found near the toe of slope of this hill in similar habitat. Purple Chinese houses (*Collinsia concolor*) were observed from the toe of slope to the highest point of the hilltop within both open areas and dense chaparral. Collinsia was found at very low densities as well as at very high densities. The highest densities observed seemed to be near the top of the hill. White layia was found at high densities as well.

The general location was south of SR 94 (Campo Road), north of Tierra del Sol Road, east of Shockey Truck Trail, and west of BIA Road 15.

This letter is official notification of this sighting and capture as required by the USFWS protocol for this species. Following this transmittal, a fax and a hard copy of this letter including maps will be sent as well. If you have any questions or comments, please contact me at (619) 233-1454.

Sincerely,

Barbra Calantas Wildlife Biologist

Enclosures: Figure 1 Regional Map

Figure 2 Vicinity Map

Figure 3 Quino Observation Location Map

cc: Eric Porter, USFWS

Alison Anderson, USFWS Kelly Meyer, Invenergy

Monique LaChappa, Chairwoman, Campo Kumeyaay Nation

Deanna Leon, President, Muht-Hei Inc.

Lisa Gover, Campo EPA

Denise Turner Walsh, Campo Tribal Attorney

Photo 1

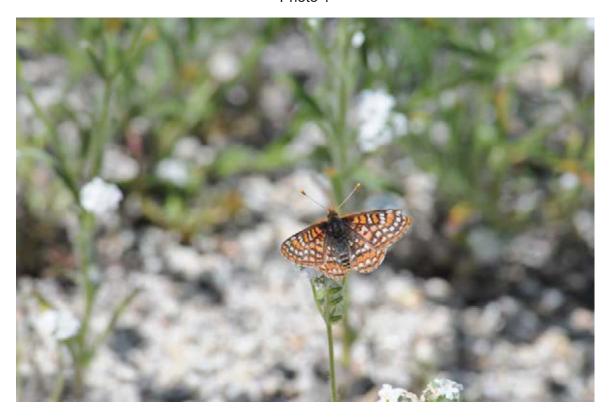


Photo 2



Photo 3



Photo 4

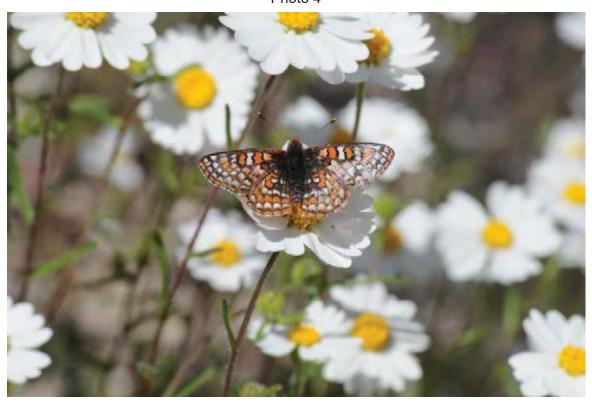
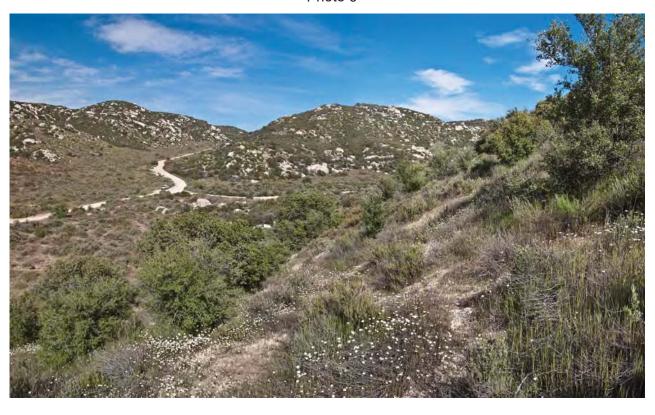


Photo 5



Photo 6



APPENDIX F.9 05/01/2010 24-HOUR NOTIFICATION LETTER TO USFWS



619.233.1454 tel 619.233.0952 fax

May 2, 2010

Ms. Sandra Marquez
Recovery Permit Coordinator
Carlsbad Fish and Wildlife Office
6010 Hidden Valley Road, Suite 101
Carlsbad, California 92011

RE: Notification of the Tenth Quino Checkerspot Butterfly Observation at the Campo Wind Energy Project, San Diego County, California

Dear Ms. Marquez:

AECOM is submitting this notification letter to inform you that two additional Quino checkerspot butterflies (*Euphydryas editha quino*; Quino) were observed on the proposed Campo Wind Energy project site in southeastern San Diego County, California. On May 1, 2010, Consulting Biologist Michael Couffer (permit number TE-782703-8), sub-contractor to AECOM observed two Quino within the Campo Reservation boundaries during protocol surveys for the species. AECOM biologist Andrew Fisher was in the company of Mr. Couffer, and also observed and photographed the Quino. Although the project site exists within U.S. Fish and Wildlife (USFWS) Quino Survey Area 2, Mr. Couffer did not collect the specimen for identification according to the USFWS protocol (2002), per the pre-activity notification letter submitted for the proposed project on April 2, 2010. The sighting is detailed below.

At 09:58 hours, Mr. Couffer observed one Quino nectaring on white layia (*Layia glandulosa*) at (NAD 83) 11 South 0557061, 3610108, at approximately 3,180 feet above lower mean sea level (Figure 3, Quino 1). This butterfly was drab, but otherwise appeared to be in good condition.

At 10:08 hours, a second Quino was discovered and independently identified by Mr. Fisher as it nectared on white layia at (NAD 83) 11 South 0557076, 3610089, at approximately 3,192 feet above lower mean sea level (Figure 3, Quino 2). Mr. Fisher is not currently permitted to identify Quino; however, within 15 seconds of Mr, Fisher's discovery and identification, Mr. Couffer confirmed Mr. Fisher's identification. Mr. Couffer wishes to add that Mr. Fisher located and correctly identified Quino at a location where both Henne's and Gabb's checkerspots were abundant at the time. This second Quino was a younger individual that had much more defined markings than the first butterfly observed (Photo 1). A representative photograph of the habitat where both Quinos were observed is provided (Photo 2).

These Quinos were found approximately half way up the slopes of a hilltop that rises from approximately 3,000 feet to 3,400 feet in elevation. Purple Chinese houses (*Collinsia concolor*) were observed from the toe of slope to the highest point of the hilltop within both open areas

and dense chaparral. Collinsia was found at very low densities as well as at very high densities. White layia was found at high densities as well. The general location was south of SR 94 (Campo Road), north of Tierra del Sol Road, east of Shockey Truck Trail, and west of BIA Road 15.

This letter is official notification of this sighting and capture as required by the USFWS protocol for this species. Following this transmittal, a fax and a hard copy of this letter including maps will be sent as well. If you have any questions or comments, please contact me at (619) 233-1454.

Sincerely,

Barbra Calantas Wildlife Biologist

Enclosures: Figure 1 Regional Map

Figure 2 Vicinity Map

Figure 3 Quino Observation Location Map

cc: Eric Porter, USFWS

Alison Anderson, USFWS Kelly Meyer, Invenergy

Monique LaChappa, Chairwoman, Campo Kumeyaay Nation

Deanna Leon, President, Muht-Hei Inc.

Lisa Gover, Campo EPA

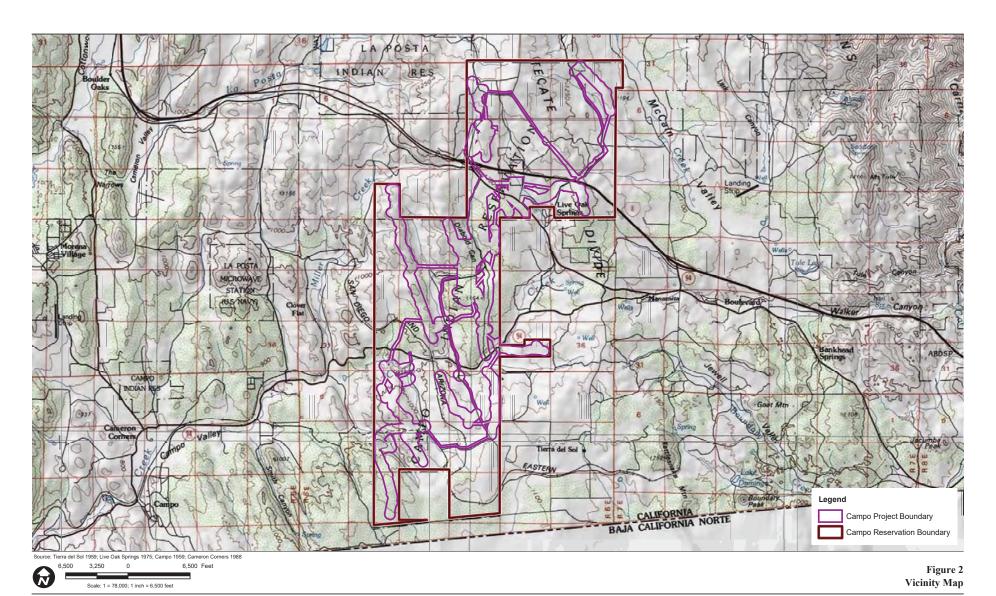
Denise Turner Walsh, Campo Tribal Attorney

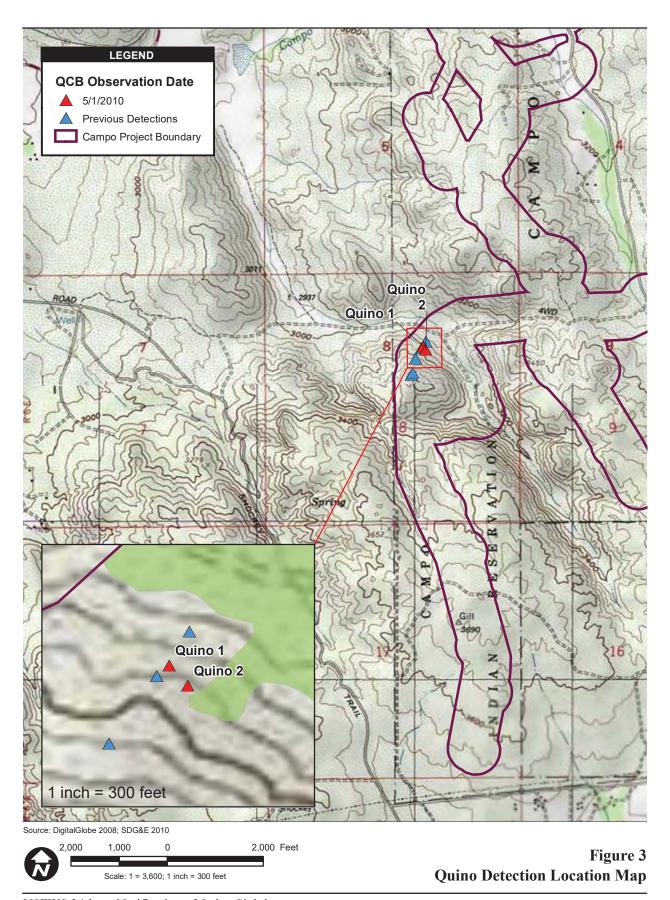
Photo 1



Photo 2







APPENDIX F.10 05/06/2010 24-HOUR NOTIFICATION LETTER TO USFWS



AECOM 1420 Kettner Boulevard Suite 500 San Diego, CA 92101 www.aecom.com 619.233.1454 tel 619.233.0952 fax

May 7, 2010

Ms. Sandra Marquez Recovery Permit Coordinator Carlsbad Fish and Wildlife Office 6010 Hidden Valley Road, Suite 101 Carlsbad, California 92011

RE: Notification of the Eleventh Quino Checkerspot Butterfly Observation at the Campo Wind Energy Project, San Diego County, California

Dear Ms. Marquez:

AECOM is submitting this notification letter to inform you that three additional Quino checkerspot butterflies (Euphydryas editha quino; Quino) were observed on the proposed Campo Wind Energy project site in southeastern San Diego County, California. On May 6, 1010, Antonette Gutierrez (permit number TE-797999-6), senior biologist at Merkel and Associates, Inc. and Consulting Biologist Michael Couffer (permit number TE-782703-8), subcontractor to AECOM observed and photographed three Quino within the Campo Reservation boundaries during protocol surveys for the species. Although the project site exists within U.S. Fish and Wildlife (USFWS) Quino Survey Area 2, neither Ms. Gutierrez nor Mr. Couffer collected specimens for identification according to the USFWS protocol (2002), per the preactivity notification letter submitted for the proposed project on April 2, 2010. The sightings are detailed below.

At 8:45 hours, Ms. Gutierrez observed and photographed a very small Quino nectaring on white layia (Layia glandulosa) at (NAD 83) 11 South 0557058, 3610103 (Figure 3; Quino 1a). The butterfly appeared to be fresh, and in good condition (Photo 1). Mr. Couffer was surveying a different portion of this hill, and did not observe this butterfly at the time.

At 10:28 hours, Mr. Couffer observed an average-sized Quino nectaring on white layia at (NAD 83) 11 South 0557082, 3610091, at approximately 3,180 feet above lower mean sea level (Figure 3, Quino 2). This butterfly was drab, but otherwise appeared to be in good condition. It chased two passing Henne's checkerspots. No photos were taken of this butterfly.

At 10:44 hours, Mr. Couffer observed a very small Quino nectaring on white layia at (NAD 83) 11 South 0557060, 3610100, at approximately 3,173 feet above lower mean sea level (Figure 3, Quino 1b). This butterfly appeared to be quite fresh, and in good condition. From the small size and overall good condition of the butterfly, Mr. Couffer surmised that this was the same Quino observed by Ms. Gutierrez two hours earlier. Please compare the shape and position of the two black spots in the third cell of the upper left wings of the butterflies shown in Photo 1 (Ms. Gutierrez), and Photo 2 (Mr. Couffer). It is highly likely that this is the same Quino, seen independently by two biologists, two hours apart.

At 12:04 hours, Mr. Couffer observed an average-sized Quino again nectaring on white layia at (NAD 83) 11 South 0557193, 3609859 at approximately 3,343 feet above lower mean sea level (Figure 3; Quino 3). This butterfly was somewhat drab, but otherwise appeared to be in good condition. No photos were taken of this butterfly.

Photographs of the habitat where both Quinos were observed are provided (Photos 3 and 4). These Quinos were found approximately on the slopes of a hilltop that rises from approximately 3,000 feet to 3,400 feet in elevation. Chinese houses (Collinsia sp.) were abundant from the toe of slope to the highest point of the hilltop within both open areas and dense chaparral. Collinsia was found at very low densities as well as at very high densities. White layia was found at high densities as well. The general location was south of SR 94 (Campo Road), north of Tierra del Sol Road, east of Shockey Truck Trail, and west of BIA Road 15.

This letter is official notification of this sighting and capture as required by the USFWS protocol for this species. Following this transmittal, a fax and a hard copy of this letter including maps will be sent as well. If you have any questions or comments, please contact me at (619) 233-1454.

Sincerely,

Barbra Calantas Wildlife Biologist

Enclosures: Figure 1 Regional Map

Figure 2 Vicinity Map

Figure 3 Quino Observation Location Map

cc: Eric Porter, USFWS

Alison Anderson, USFWS Kelly Meyer, Invenergy

Monique LaChappa, Chairwoman, Campo Kumeyaay Nation

Deanna Leon, President, Muht-Hei Inc.

Lisa Gover, Campo EPA

Denise Turner Walsh, Campo Tribal Attorney

Photo 1



Photo 2

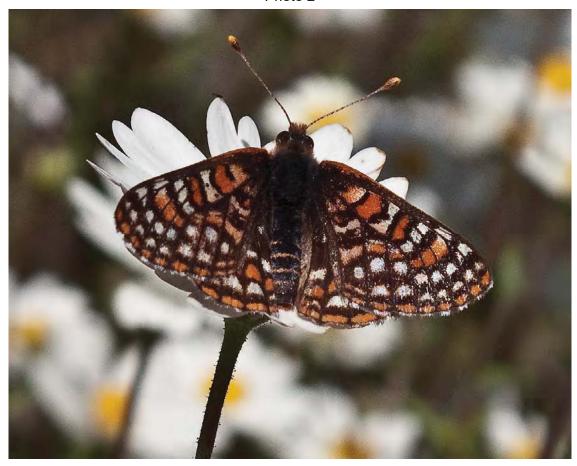
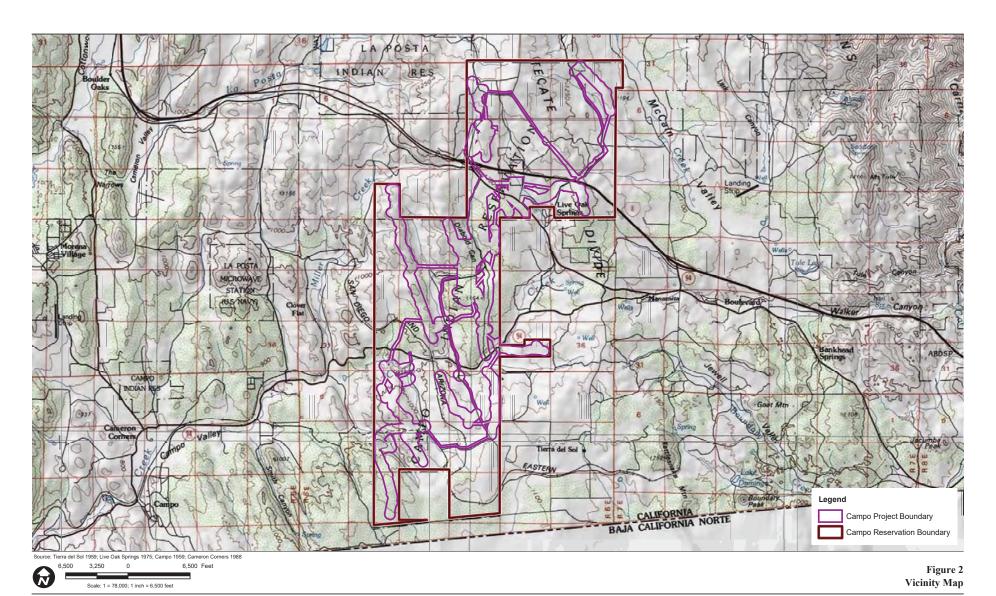


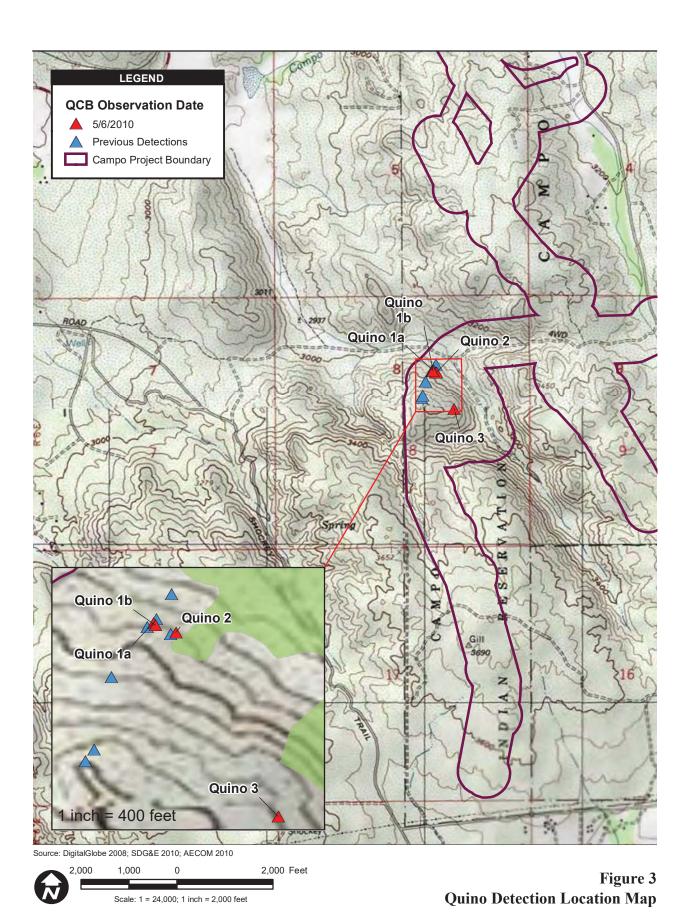
Photo 3



Photo 4







APPENDIX F.11 05/07/2010 24-HOUR NOTIFICATION LETTER TO USFWS



AECOM 1420 Kettner Boulevard Suite 500 San Diego, CA 92101 www.aecom.com 619.233.1454 tel 619.233.0952 fax

May 7, 2010

Ms. Sandra Marquez Recovery Permit Coordinator Carlsbad Fish and Wildlife Office 6010 Hidden Valley Road, Suite 101 Carlsbad, California 92011

RE: Notification of the Twelfth Quino Checkerspot Butterfly Observation at the Campo Wind Energy Project, San Diego County, California

Dear Ms. Marquez:

AECOM is submitting this notification letter to inform you that an additional Quino checkerspot butterfly (*Euphydryas editha quino*; Quino) was observed on the proposed Campo Wind Energy project site in southeastern San Diego County, California. On May 7, 2010, Consulting Biologist Michael Couffer (permit number TE-782703-8), sub-contractor to AECOM observed one Quino within the Campo Reservation boundaries during protocol surveys for the species. Although the project site exists within U.S. Fish and Wildlife (USFWS) Quino Survey Area 2, Mr. Couffer did not collect the specimen for identification according to the USFWS protocol (2002), per the preactivity notification letter submitted for the proposed project on April 2, 2010. The sighting is detailed below.

At 11:25 hours, Mr. Couffer observed one Quino nectaring on white pincushion (*Chaenactis artemisiifolia*)) at (NAD 83) 11 South 0557563, 3610337, at approximately 3,228 feet above lower mean sea level (Figure 3). This butterfly was quite drab, with smooth wing edges. Mr. Couffer was attacked by a bee while stalking the Quino for a photo, and was not able to photograph the buttefly. A photograph of the sighting location is provided (Photo 1).

This Quino was north of a hill and across a drainage ffom the location where several other Quinos have been documented during surveys for this project. This south-facing slope is much dryer, and supports far fewer Chinese houses (*Collinsia* sp.) than the north-facing slope across the drainage where Quino has been more prevalent. The general location was south of SR 94 (Campo Road), north of Tierra del Sol Road, east of Shockey Truck Trail, and west of BIA Road 15.

This letter is official notification of this sighting and capture as required by the USFWS protocol

for this species. Following this transmittal, a fax and a hard copy of this letter including maps will be sent as well. If you have any questions or comments, please contact me at (619) 233-1454.

Sincerely,

Barbra Calantas Wildlife Biologist

Enclosures: Figure 1 Regional Map

Figure 2 Vicinity Map

Figure 3 Quino Observation Location Map (to be provided on 05/13/2010)

cc: Eric Porter, USFWS

Alison Anderson, USFWS Kelly Meyer, Invenergy

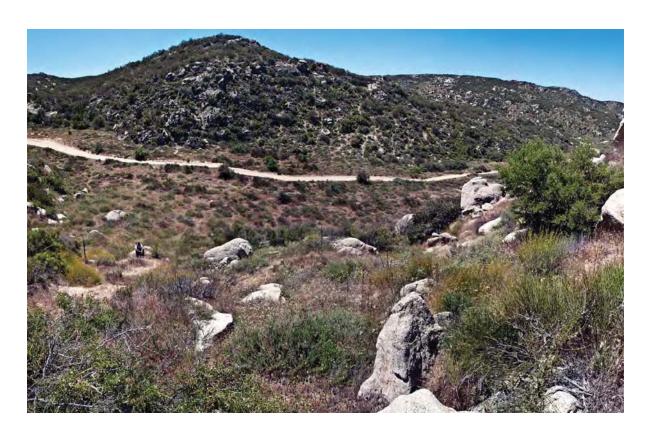
Monique LaChappa, Chairwoman, Campo Kumeyaay Nation

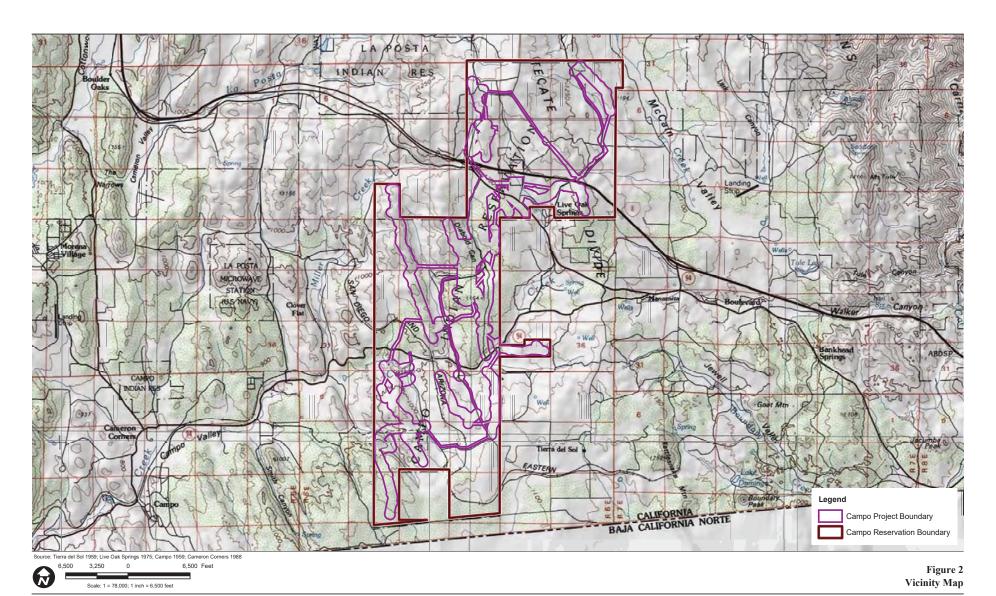
Deanna Leon, President, Muht-Hei Inc.

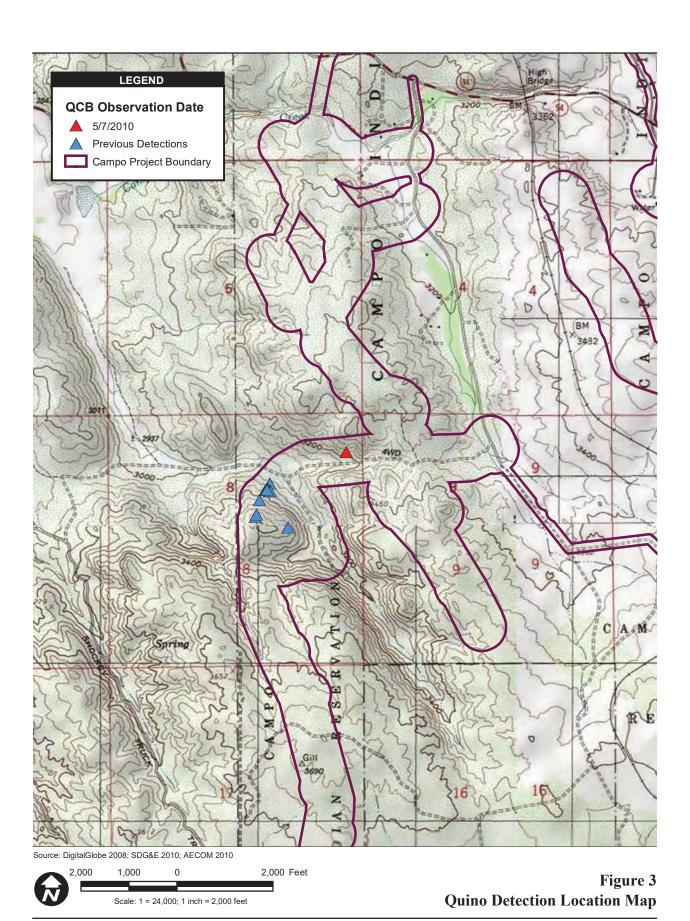
Lisa Gover, Campo EPA

Denise Turner Walsh, Campo Tribal Attorney

Photo 1









MAIN OFFICE 605 THIRD STREET ENCINITAS, CALIFORNIA 92024 T 760.942.5147 T 800.450.1818 F 760.632.0164

July 18, 2011 6759-4.7

U.S. Fish and Wildlife Service Attention: Recovery Permit Coordinator 6010 Hidden Valley Road Carlsbad, California 92011

Subject: 2011 Focused Quino Checkerspot Butterfly Survey for the Jewell Valley Wind Project, San Diego County, California

Dear Recovery Permit Coordinator:

This letter report documents the Spring 2011 results of a focused survey conducted by Dudek for the federally-listed endangered Quino checkerspot butterfly (*Euphydryas editha quino*; QCB) for the Jewell Valley Wind Project, a proposed wind energy development project in the southeastern portion of the County of San Diego, California.

PROJECT LOCATION AND EXISTING CONDITIONS

The proposed Jewell Valley Wind Project site is approximately 6,660 acres in southeastern San Diego County, approximately 60 miles east of the City of San Diego near the town of Boulevard, CA (Figure 1). The project site includes two components consisting of the Northern Ranch located to the north of Interstate 8 (I-8) and the Southern Ranch located to the south of I-8. The site lies between two major drainage divides: the Tecate Divide to the west, and the In-Ko-Pah Mountains to the east. This area occurs within the Live Oak Springs U.S. Geographic Survey (USGS) topographic quadrangle (Figure 2).

The terrain in the area ranges from valley bottoms to house-sized boulder-covered ridgelines. The elevation ranges across the study area from approximately 3,280 feet above mean sea level (AMSL) to approximately 4,120 feet AMSL.

Soils on site include acid igneous rock land, Calpine coarse sandy loam, Kitchen Creek loamy coarse sand, La Posta loamy coarse sand, La Posta rocky loamy coarse sand, Las Flores loamy fine sand, Loamy alluvial land, Mottsville loamy coarse sand, Riverwash, and Rositas loamy coarse sand.

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San Diego County, California

VEGETATION COMMUNITIES

Nine plant communities and land cover types were mapped within the focused QCB survey area, including: red shank chaparral, semi-desert chaparral, granitic northern mixed chaparral, valley and foothill grassland, field/pasture, open coast live oak woodland, dense coast live oak woodland, upper sonoran subshrub scrub, and freshwater marsh. The acreages of each community type within the project site are shown in Table 1. Descriptions of each vegetation community (with Holland numeric codes) are provided following Table 1. Holland (1986) and Oberbauer (1996) were used to describe vegetation communities on site.

Table 1
Vegetation Communities within the Focused Quino Checkerspot Butterfly Survey Area for the Jewell Valley Wind Project

Vegetation Community	Acreage On Site
Red shank chaparral	427.1
Semi-desert chaparral	264.1
Granitic northern mixed chaparral	263.8
Valley and Foothill Grassland	22.2
Field/pasture	13.8
Open coast live oak woodland	5.8
Upper Sonoran subshrub scrub	3.2
Freshwater marsh	2.6
Dense coast live oak woodland	0.2
Total	1002.8

Red Shank Chaparral (37300)

Red shank chaparral is made up of nearly pure stands of red shank (*Adenostoma sparsifolium*) (Holland 1986). This community is similar to chamise chaparral but is typically taller and somewhat more open (Holland 1986). In the study area, red shank chaparral intergrades with chamise chaparral and scrub oak chaparral. Like chamise chaparral, the understory in red shank chaparral is sparse and composed of flat-topped buckwheat, annual forbs, and brome grasses.

Semi-Desert Chaparral (37400)

Semi-desert chaparral is relatively open, with widely spaced shrubs and openings supporting annuals. This community is similar to mixed chaparral but occurs in areas with hotter, drier summers and colder winters. In the study area, this community is characterized by abundant rock outcrops. Semi-desert chaparral intergrades with flat-topped buckwheat and the other chaparral



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communities. Perennial species common to this community include flat-topped buckwheat, silver cholla (*Cylindropuntia echinocarpus*), Mojave yucca, and Mormon-tea (*Ephedra californica*). Scattered occasionally throughout this community are other common chaparral shrubs, including sugarbush, mountain mahogany, and scrub oak. Annual species observed in the openings of this community include goldfields, red-stemmed filaree, golden yarrow (*Eriophyllum confertiflorum*) thread-leafed eriastrum (*Eriastrum filifolium*), chia, desert beauty, Lemmon's linanthus, San Diego gilia, popcorn flower, and red brome.

Granitic Northern Mixed Chaparral (37131)

Granitic northern mixed chaparral is similar to northern mixed chaparral (37130), but with granitic soils. This community consists of broad-leaved sclerophyll shrubs, 2–4 m tall, forming dense, often nearly impenetrable vegetation dominated by Nuttall's scrub oak (*Quercus dumosa*), chamise (*Adenostoma fasciculatum*), and any one of several taxa in *Arctostaphylos* and *Ceanothus*. Plants in this community are typically deep-rooted, with usually little or no understory vegetation, and often considerable accumulation of leaf litter. Granitic northern mixed chaparral is well adapted to repeated fires, to which many species respond by stump sprouting. A dense cover of annual herbs may appear during the first growing season after a fire, followed in subsequent years by perennial herbs, short-lived shrubs and re-establishment of dominance by the original shrub species in this community.

Valley and Foothill Grassland (42000)

Valley and foothill grassland is a native community dominated by large tussocks of perennial native needlegrass (Nasella spp.). The habitat is open and typically supports a variety of native and introduced grasses and forbs, often actually exceeding the bunchgrasses in cover. In San Diego County, native perennial herbs such as Sanicula, Sidalcea, Sisirynchium, Eschscholzia or Lasthenia are present. The percentage cover of native species at any one time may be quite low, but is considered native grassland if 20% aerial cover of native species is present. Other species commonly associated with valley and foothills grassland include wild oat (Avena fatua), common goldenstar (Bloomeria crocea), ripgut grass (Bromus diandrus), foxtail chess (Bromus madriatensis ssp. rubens), California poppy (Eschscholzia spp.), and goldfields (Lasthenia spp.).

Open and Dense Coast Live Oak Woodland (71161 and 71162, respectively)

Both open coast live oak woodland and dense coast live oak woodland are generally similar to the coast live oak woodland (71160). Open coast live oak woodland has a canopy with less than 50% cover, while dense coast live oak woodland has a canopy with between 50% and 75% cover. Coast



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live oak woodland is an evergreen woodland dominated by coast live oak (*Quercus agrifolia*). The shrub layer is poorly developed, but may include toyon (*Heteromeles arbutifolia*), currant or gooseberry (*Ribes* spp.), laurel sumac (*Malosma laurina*), or dominated by Mexican elderberry (*Sambucus Mexicana*). The herb component is continuous and dominated by ripgut grass and several other introduced taxa. Open coast live oak woodland typically occurs along drainages at desert margin on north-facing slopes or mixed with Engelmann oak (*Quercus engelmannii*). Dense coast live oak woodland mostly occurs at the narrowing of valley flood plains, or valleys with deep alluvium and high perennial groundwater, mostly in riparian habitats.

Field/Pasture (18310)

Field/pasture includes areas of low-intensity agriculture typically involving dry farming or livestock grazing. In the study area, a small area of field/pasture occurs along McCain Valley Road near Interstate 8, where livestock grazing occurs in a floodplain area. In general, this area is characterized by non-native grasses, including *Bromus* and *Hordeum* species, and non-native herbaceous species, including tumble mustard (*Sisymbrium altissimum*) and red-stemmed filaree (*Erodium cicutarium*).

Upper Sonoran Subshrub Scrub (39000)

Upper sonoran subshrub scrub is a low, fairly penetrable scrub of soft-wooded, summer-dormant, drought- tolerant shrubs. Dominance varies among sites, but usually includes interior goldenbush (*Ericameria linearifolia*), interior California buckwheat (*Eriogonum fasciculatum polifolium*), bladderpod (*Isomeris arborea arborea*), or desert tea (*Ephedra californica*), with many annuals derived from nearby grasslands filling the spaces between the shrubs. Upper sonoran subshrub scrub typically occurs in fairly well drained soils derived from sandstone, shale, or even sterile white diatomaceous deposits. In San Diego County this community occurs at high elevations.

Freshwater Marsh (52400)

Freshwater marsh is a wetland habitat type that develops where the water table is at or just above the ground surface, such as around the margins of lakes, ponds, slow-moving streams, ditches, and seepages. It typically is dominated by tall, emergent monocots, such as cattail (*Typha* sp.) and bulrush (*Scirpus* sp.). With elevations on the Jewell Valley study area ranging from 2932–3534 feet AMSL, the freshwater marsh on site could most accurately be described as transmontane freshwater marsh (52420), which occurs from 3500–7500 feet AMSL. Transmontane freshwater marsh differs from coastal and valley freshwater marsh (52410) in having a shorter growing season, confined more strictly to the summer and subject to much lower temperatures in winter, often well below freezing.



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Freshwater marsh is considered a wetland community and the marsh on site is under the jurisdiction of the CDFG, pursuant to Section 1601-1603 of the California Fish and Game Code, the ACOE, pursuant to Section 404 of the Clean Water Act, and the RWQCB, pursuant to Section 401 of the Clean Water Act. In addition, this wetland habitat is under the jurisdiction of the County of San Diego.

QUINO CHECKERSPOT BUTTERFLY SURVEY

Methods

The project developer is in the process of developing a site plan that will be based on meteorological data collected from MET facilities to be constructed onsite. Since a site plan was not available at the time Focused QCB surveys were completed, a survey program was developed by Dudek that included surveying specific areas located throughout the project site (Figures 3 and 4). The survey areas were developed by Dudek based on discussions with the project developer that identified potential areas onsite that would likely be most suitable for development and habitat onsite that would likely support QCB.

Focused QCB surveys were conducted over five visits within a 5-week period between March 9 and April 15, 2011. Surveys were conducted by QCB permitted biologists Anita M. Hayworth, Ph.D. (TE781084), Brock A. Ortega (TE813545-5), Jeff D. Priest (TE840619-2), Kam J. Muri (TE051250-0), Tricia Wotipka (TE840619-2), Paul M. Lemons (TE051248-2), Vipul R. Joshi (TE019949-0), Viviane Marquez (TE800930-9) and David Waller (TE025394-2) in accordance with current USFWS protocol (USFWS 2002a, 2002b).

The site was divided into 11 survey polygons, each representing a single day survey effort (i.e., in accordance with USFWS protocol) (Table 2). These survey areas were numbered and assigned to Dudek's permitted biologists. The biologists were provided with 200-scale (1 inch = 200 feet) aerial photographs of each survey polygon. These photographs were used for mapping host plant populations. Binoculars were used to aid in detecting and identifying butterfly and other wildlife species. GPS units also were available for recording locations of host plant populations.

Table 2
2011 Quino Checkerspot Butterfly (QCB) Survey Polygons

Survey Area	Acreage of Survey Area
1	96
2	95
3	93



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Table 2
2011 Quino Checkerspot Butterfly (QCB) Survey Polygons

Survey Area	Acreage of Survey Area
4	99
5	84
6	85
7	88
8	93
9	89
10	88
11	93

The survey methods consisted of slowly walking roughly parallel transects throughout all potential habitat within the survey area (i.e., all areas that are not excluded per the survey protocol, generally including sage scrub, open chaparral, grasslands, open or sparsely vegetated areas, hilltops, ridgelines, rocky outcrops, trails and dirt roads). Survey routes were arranged to thoroughly cover the survey area at a rate of no more than 10–15 acres per hour.

Surveys were conducted only during acceptable weather conditions (i.e., surveys were not conducted during fog, drizzle, or rain; sustained winds greater than 15 miles per hour measured 4–6 feet above ground level; temperature in the shade at ground level less than 60° Fahrenheit (F) on a clear, sunny day; or temperature in the shade at ground level less than 70°F on an overcast or cloudy day). Survey times, personnel, and conditions during the QCB survey are shown in Table 3. Photocopies of the surveyor's field notes are included as Appendix A.

Table 3
Schedule of Focused Quino Checkerspot Butterfly Surveys and Environmental Conditions

			Range of Conditions			
			Temperature Range	Percent Cloud Cover	Wind (miles per hour	
Survey Area	Date	Time	(°F)	(% cc)	(mph))	Personnel*
			Week	1		
1	3/11/11	0805-1400	64–81	0–0	3-5 to 6-10	AMH
2	3/9/11	0946-1530	60–60	0–0	0–10, gusts to 30	BAO
3	3/11/11	1000-1600	63–70	0–0	3-5 to 5-10, gusts to 15	BAO
4	3/11/11	0830-1505	61–80	0–20	3-6 to 4-8, gusts to 15	JDP
5	3/15/11	0850-1500	63–70	0–10	0-4 to 6-10, gusts 10-15	PML
6	3/15/11	1000-1600	68–72	5–15	2-3 to 2-5, gusts 8-15	VRJ
7	3/10/11	0910-1500	64–78	0–0	0-3 to 3-6, gusts 12-20	PML

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Table 3
Schedule of Focused Quino Checkerspot Butterfly Surveys and Environmental Conditions

			Range of Conditions				
Survey Area	Date	Time	Temperature Range (°F)	Percent Cloud Cover (% cc)	Wind (miles per hour (mph))	Personnel*	
8 (north half)	3/11/11	0840-1400	60–69	0–5	0-5 to 4-10, gusts 10-15	PML	
8 (south half)	3/11/11	0915-1530	68-86	0–0	4–7	TLW	
9	3/10/11	0930-1530	64–67	0–0	0–1 to 0–5	VRJ	
10	3/14/11	0915–1515	66-80	10–35	3-6 to 6-9	TLW	
11	3/11/11	0945-1545	62-64	0–40	7–8 to 5–10	KJM	
			Week	2			
1	3/18/11	0930-1530	62-65	20-0	5–10, gusts to 15	BAO	
2	3/18/11	0945-1515	64-64	20-0	1-3 to 5-10, gusts 10-15	AMH	
3	3/15/11	1000–1610	65–70	0–20	5–10, gusts to 15	BAO	
4	3/18/11	0930-1600	60–73	60–5	0-3 to 8-12, gusts to 15	JDP	
5	3/29/11	1100–1630	66–70	10–10	5–10 to 3–5	BAO	
6	3/17/11	0845-1525	64–69	10–40	0-5 to 2-9, gusts 10-14	PML	
7	3/17/11	0905-1515	61–72	0-0 hazy	2-3 to 5-8	TLW	
8	3/23/11	0945-1600	64–62	0–0	0-2 to 4-6	TLW	
9	3/28/11	1100–1700	64–66	0–0	3–8, gusts to 15	VRJ	
10	3/18/11	0905-1505	70–68	0–0 hazy	4-6 to 6-9	TLW	
11	3/18/11	1000–1600	60-60	50–0	4-8 to 6-10, gusts to 12	KJM	
			Week	3			
1	3/29/11	0930–1615	64–72	0–80	3-5 to 5-8	AMH	
2	3/23/11	1000–1630	60–64	0–15	2-4 to 8-12, gusts 15-25	JDP	
2	4/1/11	1420-1720*	81–88	0–0	0–7	VM & DW	
3	3/30/11	1015–1630	73–74	2–60	1-5 to 2-6, gusts to 8	JDP	
4	4/5/11	1015–1700	67–72	40–80	3-7 to 2-8, gusts 10-14	PML	
5	3/31/11	0920–1535	68–77	5–5	0-4 to 4-8, gusts 9-12	PML	
6	3/30/11	0900–1500	64–74	10–20	0-4 to 4-8, gusts 9-15	PML	
7	3/29/11	0900–1505	64–76	0–20	5–8 to 2–4, morning gusts to 12	TLW	
8	4/1/11	0900–1515	74–86	0–0	2–3	TLW	
9	3/30/11	1030-1350*	69–77	5–20	0–8	VM & DW	
10	3/30/11	1350-1525*	75–76	25–35	0–8	VM & DW	
10	4/1/11	1035-1305*	78–89	0–0	0–7	VM & DW	
11	3/28/11	1015–1630	60-62	0-0	4-6 to 3-7	KJM	
Week 4							
1	4/1/11	0830–1550	64-64	0–0	3–5	AMH	
2	4/13/11	1030-1305*	60–67	0–5	0-7, gusts 7-9	VM & DW	
3	4/2/11	0915–1530	68–74	50-60	0–5 to 4–9, gusts to 15	JDP	

Subject: 2011 Focused Quino Checkerspot Butterfly Survey for the Jewell Valley Wind Project, San Diego County, California

Table 3
Schedule of Focused Quino Checkerspot Butterfly Surveys and Environmental Conditions

			Range of Conditions				
Survey Area	Date	Time	Temperature Range (°F)	Percent Cloud Cover (% cc)	Wind (miles per hour (mph))	Personnel*	
4	4/1/11	0930-1600	74–88	0–0	0-2 to 0-4	JDP	
5	4/4/11	0920-1545	64-72	0–0	3-8 to 4-8, gusts 9-15	PML	
6	4/11/11	1000-1600	62–65	50-0	2-6 to 1-4, gusts 5-8	PML	
7	4/4/11	0930-1545	70–74	0–0	5–8, gusts to 16	TLW	
8	4/5/11	1030–1630	70–70	40-60	4-7 to 4-12, gusts to 20	KJM	
9	4/1/11	1000-1500	63–66	0–0	3–5, gusts to 10	BAO	
10 north	4/10/11	1405–1545*	62-64	0-0	0-7, gusts 7-9.5	VM & DW	
11	4/4/11	1030-1630	62–67	0–0	2-4 to 0-2, gusts 6-10	KJM	
	Week 5						
1	4/12/11	1005-1605	64–68	0–0	4-8 to 5-10	AMH	
1	4/15/11	1030-1400	67–69	0–0	5–9	AMH	
2	4/15/11	1030-1630	66–69	0–0	5-7 to 4-7, gusts 10-12	KJM	
3	4/14/11	1030-1640	61–64	0–0	3-7 to 2-5	KJM	
4	4/11/11	0950-1415	62-65	50-0	3–5	AMH	
5	4/12/11	0940-1600	60–65	0–0	2-4 to 2-6, gusts 7-10	PML	
6	4/13/11	1040-1630	60-62	0–10	3-8 to 4-8, gusts 10-17	PML	
7	4/12/11	1020-1625	62-64	0–0	2-6 to 4-7	KJM	
8	4/13/11	1405–1630*	56-62	0–20	0-5, gusts 6-11	VM & DW	
9	4/11/11	1015–1450*	60–67	15–70	0–7	VM & DW	
10	4/14/11	1100–1700	63–65	0–0	3-5 to 2-10	BAO	
11	4/10/11	1000-1405*	58–65	0–0	0-6 gusts 9-13	VM & DW	

^{*} Survey areas were split up and surveyed simultaneously by Viviane Marquez and David Waller. Survey times shown should be doubled to determine time spent in each survey area.

AMH = Anita M. Hayworth, PhD (TE-781084-6)

BAO = Brock A. Ortega (TE-813545-5)

JDP = Jeffrey D. Priest (TE-840619-2)

KJM = Kam J. Muri (TE-051250-0)

PML = Paul M. Lemons (TE-051248-4)

TLW = Tricia L. Wotipka (TE-840619-2)

VRJ = Vipul R. Joshi (TE-019949-0)

VM = Viviane Marquez (TE-800930-9)

DW = David Waller (TE-025394-2)

RESULTS

No QCB were observed during the 2011 focused survey. Thirty-three (33) butterfly species were observed during the surveys. The weeks in which these butterflies were observed are shown in Table 4.



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Table 4
Butterflies Observed on Site

			Week					
Scientific Name	Common Name	1	2	3	4	5		
Hesperiidae – Skippers								
Erynnis funeralis	Funeral duskywing	Х	Χ	Χ	Χ	Χ		
Erynnis propertius	Propertius duskywing	_	_	_	Χ	_		
Erynnis sp.	Duskywing	Х	Χ	Χ	Χ	Χ		
Thorybes pylades	Northern Cloudywing	Х	_	_	_	_		
Nymphali	Nymphalidae – Brush-footed Butterflies							
Agraulis sp.	Fritillary		_	Χ	_	_		
Coenonympha californica californica	California ringlet	Х	Χ	_	Χ	_		
Junonia coenia	Buckeye	_	_	_	Χ	Χ		
Vanessa annabella	West coast lady	Х	Χ	_	_	Χ		
Vanessa cardui	Painted lady	Х	Χ	Χ	Χ	Χ		
Vanessa sp.	Lady	X	Χ	Χ	Χ	Χ		
Lycaeni	idae – Blues and Hairstreaks							
Brephidium exile	Western pygmy blue	_	_	Χ	_	_		
Callophrys perplexa	Perplexing (green) hairstreak	Х	Χ	Χ	Χ	Χ		
Glaucopsyche lygdamus australis	Southern blue	Х	Χ	Χ	Χ	Χ		
Icaria acmon acmon	Acmon blue	X	Χ	Χ	Χ	Χ		
Incisalia augustinus	Brown elfin	Х	Χ	Χ	_	_		
Leptotes marina	Marine blue	Χ	_	_	_	_		
Philotes sonorensis	Sonoran blue	_	_	Χ	_	_		
Рад	pilionidae – Swallowtails							
Papilio eurymedon	Pale swallowtail	Χ	Χ	Χ	Χ	Χ		
Papilio rutulus	Western swallowtail	_	Χ	_	Χ	_		
Papilo zelicaon lucas	Anise swallowtail	_	_	_	_	Χ		
Peiri	idae – Whites and Sulfurs							
Anthocharis centhura	Felder's orangetip	Χ	Χ	Χ	Χ	Χ		
Anthocharis sara	Sara orangetip	Χ	Χ	Χ	Χ	Χ		
Colias eurydice	California dogface	Χ	Χ	_	_	_		
Colias harfordi	Harford's Sulfur	Χ	_	Χ	Χ	Χ		
Colias sp.	Sulfur	Χ	Χ	Χ	_	Χ		
Euchloe hyantis	Pearly marble	Х		Χ	_			
Euchloe lotta	Desert marble			Χ	Χ	Χ		
Pieris rapae	European cabbage white		Χ	Χ	_			
Pontia beckerii	Becker's white	Χ		Χ	_	_		
Pontia protodice	Common white	Χ	Χ	Χ	Χ	Χ		
Pontia sisymbrii	California white	Χ	Χ	Χ	_	_		

Subject: 2011 Focused Quino Checkerspot Butterfly Survey for the Jewell Valley Wind Project, San Diego County, California

Table 4
Butterflies Observed on Site

		Week					
Scientific Name	Common Name	1	2	3	4	5	
<i>Riodinidae</i> – Metalmarks							
Apodemia virgulti	Behr's metalmark	Χ	Χ	Χ	Χ	Χ	
Calephelis wrightii	Wright's metalmark	Χ	_	_	_	_	

One species of QCB larval host plant, common owl's-clover (*Castilleja exserta* ssp. *exserta*), was observed within the study area during focused surveys. Occurrences of the larval host plant are shown on Figure 4. Table 5 includes the known and observed adult QCB nectar plants (according to Mattoni et al. 1997, USFWS 2002a, USFWS 2002b, USFWS 2003). Larval host plants are also included in Table 5 and are in bold print.

Table 5

QCB Larval Food and Adult Nectar Plants¹

Scientific Name	Common Name	Observed During Focused Survey				
	<i>Apiaceae</i> – Carrot Family					
Lomatium dasycarpum ssp. dasycarpum	woolly-fruit lomatium	_				
Lomatium utriculatum	common lomatium	_				
	Asteraceae – Sunflower Family					
Achillea millefolium	yarrow, milfoil	_				
Lasthenia californica	common goldfields	X				
Lasthenia coronaria	southern goldfields	_				
Layia platyglossa	common tidy tips	X				
	Boraginaceae - Borage Family					
Amsinckia menziesii	rancher's fireweed	_				
Amsinckia menziesii var. intermedia	rancher's fiddleneck	X				
Amsinckia menziesii var. menziesii	rigid fiddleneck	_				
Cryptantha spp. or Plagyobothrys spp.	popcorn flower	X				
	Fabaceae - Pea Family					
Lotus spp.	deerweed, spanishclover, lotus	X				
H.	<i>lydrophyllaceae</i> - Waterleaf Family					
Eriodictyon crassifolium var. crassifolium	thickleaf yerba santa	_				
Eriodictyon trichocalyx var. trichocalyx	hairy yerba santa	_				
Phacelia distans	wild-heliotrope	X				
Lamiaceae – Mint Family						
Salvia columbariae	chia	X				
<i>Plantaginaceae</i> – Plantain Family						
Plantago erecta ²	dot-seed plantain	_				

Subject: 2011 Focused Quino Checkerspot Butterfly Survey for the Jewell Valley Wind Project, San Diego County, California

Table 5

QCB Larval Food and Adult Nectar Plants¹

Scientific Name	Common Name	Observed During Focused Survey					
Plantago patagonica	woolly plantain	_					
	Polemoniaceae – Phlox Family						
Gilia angelensis	grassland gilia	_					
Gilia capitata ssp. abrotanifolia	ball gilia	_					
Linanthus spp.	ground pink	_					
l l	Polygonaceae - Buckwheat Family						
Eriogonum fasciculatum var. foliolosum	California buckwheat	X					
	Scrophulariaceae - Figwort Family						
Antirrhinum coulterianum	Coulter's snapdragon	_					
Castilleja exserta	common owl's-clover	X					
<i>Collinsia</i> sp.	Chinese houses	_					
Cordylanthus rigidus ssp. setiger	dark-tipped bird's-beak	_					
Keckiella antirrhinoides var. antirrhinoides	yellow bush-penstemon	_					
Keckiella cordifolia	climbing bush penstemon	_					
	<i>Liliaceae</i> – Lily Family						
Allium haematochiton	red-skin onion	_					
Allium peninsulare	red-flower onion	_					
Allium praecox	early onion	_					
Dichelostemma capitatum	blue dicks	X					
Muilla clevelandii	San Diego goldenstar	_					
Muilla maritima	common muilla	_					

¹ List derived from Mattoni et al. 1997; USFWS 2002a, USFWS 2002b; USFWS 2003 (for *Euphydras editha*)

Dudek certifies that the information in this survey report and attached exhibits fully and accurately represents the work conducted by the QCB permitted biologists who conducted this focused survey.

Please feel free to contact us at 760.942.5147, plemons@dudek.com, or bortega@dudek.com if you have any questions regarding the contents of this report.

Sincerely,

Paul M. Lemons
Permit #TE051248-4

Kam J. Muri Permit # TE051250-0 Brøck A. Ortega
Permit #TE813545-5

Jeffrey D. Priest Permit #TE840619-2

Anita M. Hayworth Permit #TE781084

Tricia L. Wotipka
Permit # TE840619-2

² Plants listed in bold print are known QCB larval host plant species.

Recovery Permit Coordinator

Subject: 2011 Focused Quino Checkerspot Butterfly Survey for the Jewell Valley Wind Project,

San Diego County, California

Vipul R. Joshi

Permit # TE019949-0

David Waller

Permit #TE025394-2

Viviane Marquez

Permit #TE800930-9

Att: Figure 1, Regional Map

Figure 2, Vicinity Map

Figure 3, Biological Resources Map with Quino Survey Areas – North Figure 4, Biological Resources Map with Quino Survey Areas – South

Appendix A - List of Wildlife Species Observed during the 2011 Jewell Valley QCB Survey

Appendix B - 2011 Jewell Valley QCB Survey Field Notes

cc: Joan Heredia, Enel Green Power North America

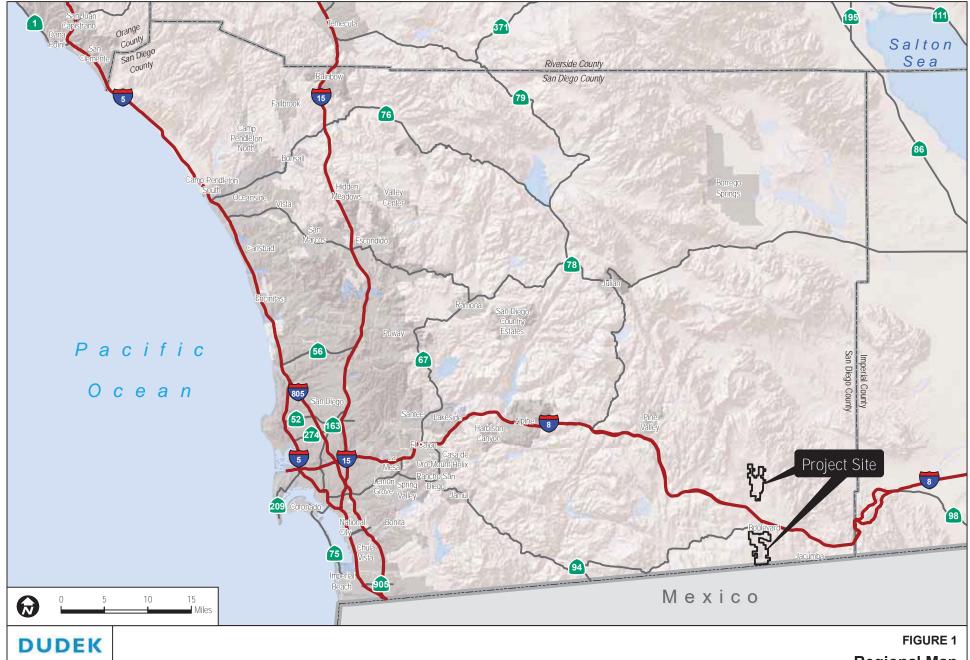
David Hochart, Dudek

Subject: 2011 Focused Quino Checkerspot Butterfly Survey for the Jewell Valley Wind Project, San Diego County, California

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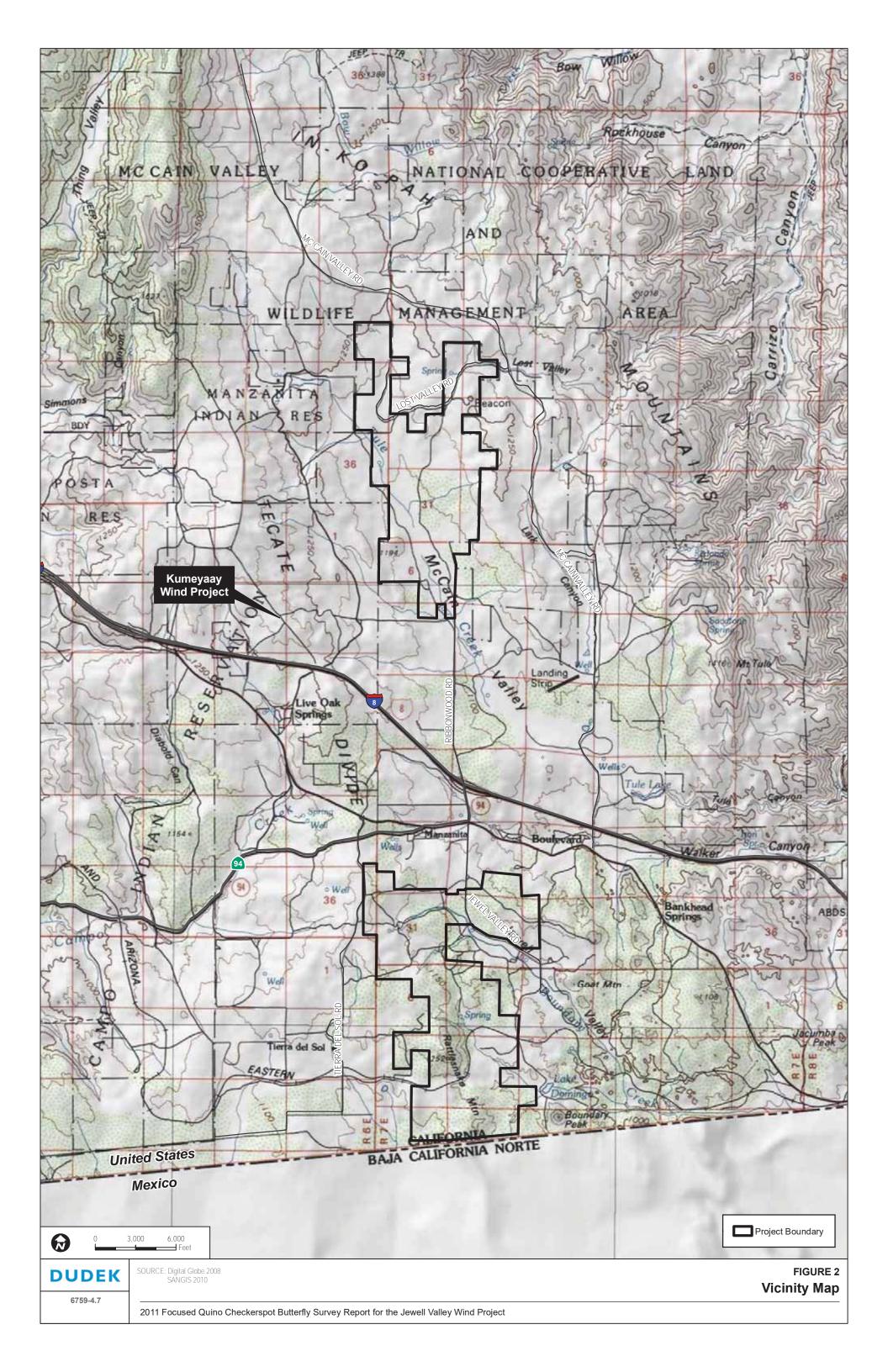


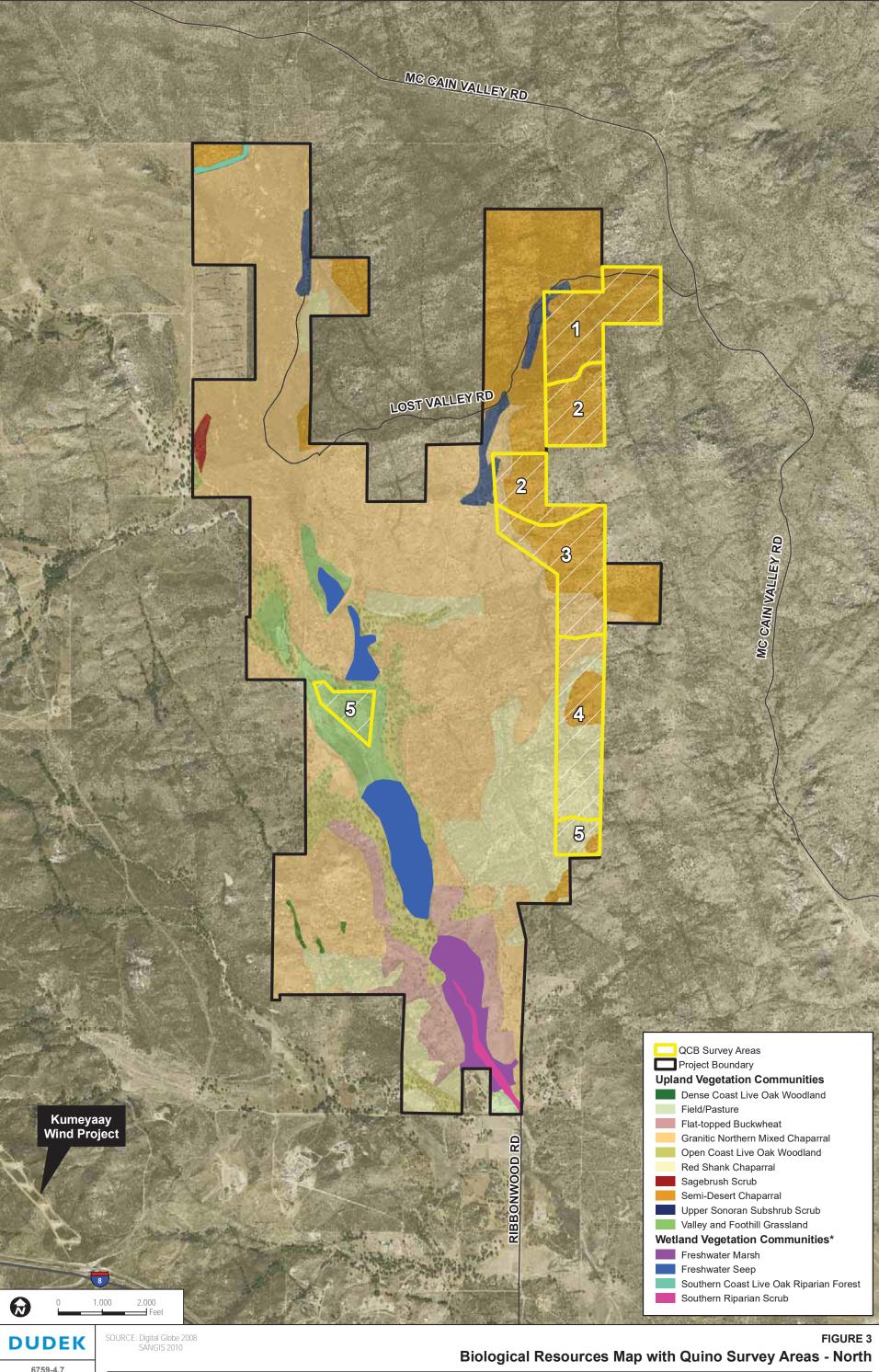


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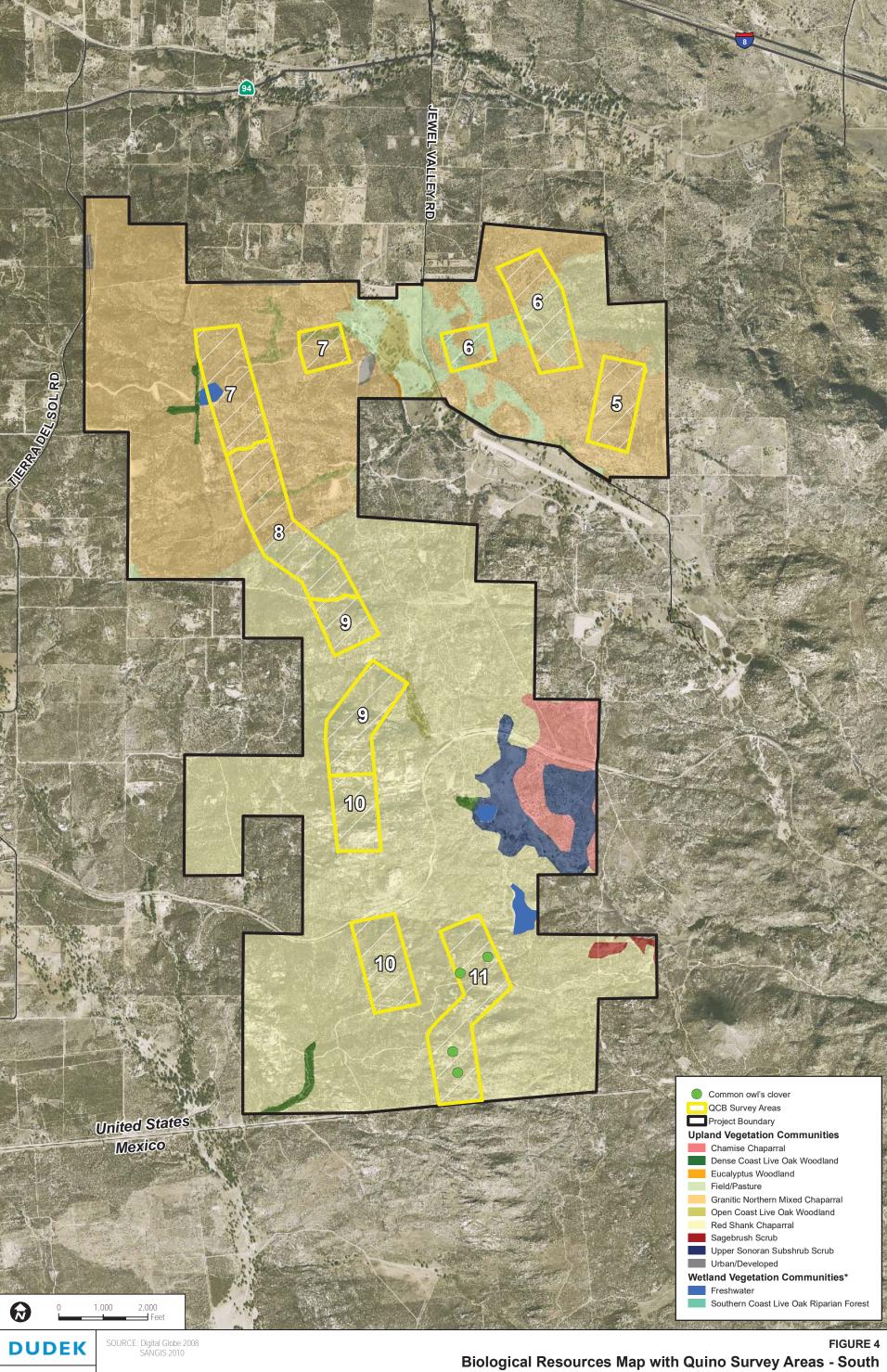
Regional Map

2011 Focused Quino Checkerspot Butterfly Survey Report for the Jewell Valley Wind Project

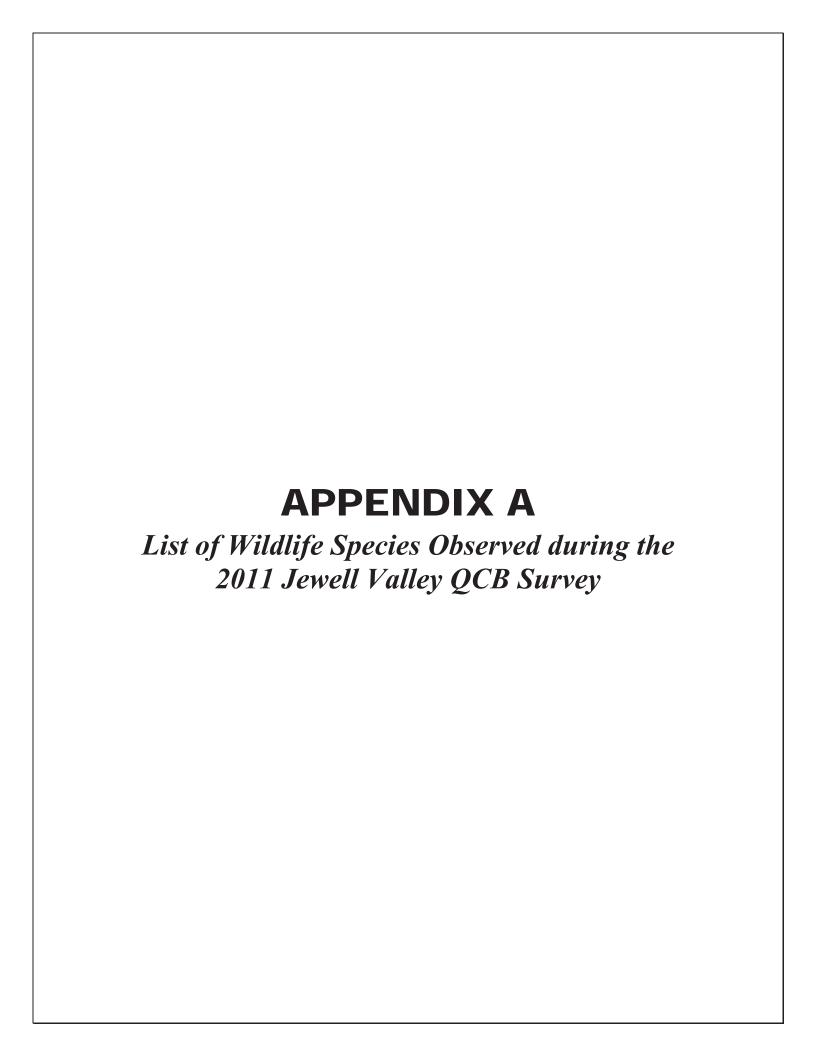




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APPENDIX A List of Wildlife Species Observed during the 2011 Jewell Valley QCB Survey

WILDLIFE SPECIES - VERTEBRATES

AMPHIBIANS

BUFONIDAE – TRUE TOADS

Bufo boreas - western toad

HYLIDAE – TREEFROGS

Hyla cadaverina – California treefrog Hyla regilla – Pacific treefrog

REPTILES

IGUANIDAE - IGUANID LIZARDS

Gambelia wislizenii – long-nosed leopard lizard Phrynosoma coronatum – coast horned lizard Sceloporus graciosus – sagebrush lizard Sceloporus occidentalis – western fence lizard Sceloporus orcutti – granite spiny lizard Uta stansburiana – side-blotched lizard

TEIIDAE - WHIPTAIL LIZARDS

Cnemidophorus hyperythrus – orange-throated whiptail

COLUBRIDAE - COLUBRID SNAKES

Coluber constrictor – racer

Masticophis lateralis – California whipsnake

Pituophis melanoleucus – gopher snake

VIPERIDAE - VIPERS

Crotalus atrox – western diamondback rattlesnake
Crotalus ruber – red-diamond rattlesnake
Crotalus oreganus helleri – Southern pacific rattlesnake

BIRDS

ARDEIDAE – HERONS

Ardea alba – great egret

ANATIDAE - WATERFOWL

Anas platyrhynchos – mallard

CATHARTIDAE - NEW WORLD VULTURES

Cathartes aura – turkey vulture

ACCIPITRIDAE - HAWKS

Accipiter cooperii – Cooper's hawk Buteo jamaicensis – red-tailed hawk Parabuteo unicinctus – Harris's hawk

FALCONIDAE - FALCONS

Falco sparverius – American kestrel

PHASIANIDAE - PHEASANTS AND QUAILS

Callipepla californica - California quail

CHARADRIIDAE - PLOVERS

Charadrius vociferus – killdeer

COLUMBIDAE – PIGEONS AND DOVES

Zenaida macroura – mourning dove

CUCULIDAE - CUCKOOS AND ROADRUNNERS

Geococcyx californianus – greater roadrunner

STRIGIDAE - TRUE OWLS

Bubo virginianus – great horned owl

APODIDAE - SWIFTS

Aeronautes saxatalis – white-throated swift

TROCHILIDAE - HUMMINGBIRDS

Calypte anna - Anna's hummingbird

PICIDAE – WOODPECKERS

Colaptes auratus – northern flicker

Melanerpes formicivorus – acorn woodpecker

Picoides nuttallii – Nuttall's woodpecker

Picoides scalaris – ladder-backed woodpecker

TYRANNIDAE – TYRANT FLYCATCHERS

Sayornis nigricans – black phoebe Sayornis saya – Say's phoebe Tyrannus vociferans – Cassin's kingbird Tyrannus verticalis – western kingbird

HIRUNDINIDAE - SWALLOWS

Petrochelidon pyrrhonota – cliff swallow

CORVIDAE - JAYS AND CROWS

Aphelocoma californica – western scrub-jay Corvus brachyrhynchos – American crow Corvus corax – common rayen

PARIDAE – TITMICE

Baeolophus inornatus – oak titmouse

AEGITHALIDAE – BUSHTITS

Psaltriparus minimus – bushtit

TROGLODYTIDAE - WRENS

Campylorhynchus brunneicapillus – cactus wren Salpinctes obsoletus – rock wren Thryomanes bewickii – Bewick's wren

SYLVIIDAE - GNATCATCHERS

Polioptila caerulea – blue-gray gnatcatcher

TURDIDAE - THRUSHES AND BABBLERS

Sialia mexicana – western bluebird

TIMALIIDAE – LAUGHINGTHRUSH AND WRENTIT

Chamaea fasciata – wrentit

MIMIDAE – THRASHERS

Mimus polyglottos – northern mockingbird *Toxostoma redivivum* – California thrasher

PTILOGONATIDAE - SILKY-FLYCATCHERS

Phainopepla nitens – phainopepla



LANIIDAE - SHRIKES

Lanius ludovicianus - loggerhead shrike

STURNIDAE – STARLINGS

* Sturnus vulgaris – European starling

PARULIDAE - WOOD WARBLERS

Dendroica coronata – yellow-rumped warbler Geothlypis trichas – common yellowthroat Oporonis tolmiei – MacGillivray's warbler Vermivora celata – orange-crowned warbler

Wilsonia pusilla – Wilson's warbler

EMBERIZIDAE – BUNTINGS AND SPARROWS

Amphispiza bilineata – black-throated sparrow
Chondestes grammacus – lark sparrow
Junco hyemalis – dark-eyed junco
Melospiza melodia – song sparrow
Pipilo crissalis – California towhee
Pipilo maculatus – spotted towhee
Spizella atrogularis – black-chinned sparrow
Zonotrichia leucophrys – white-crowned sparrow

ICTERIDAE - BLACKBIRDS AND ORIOLES

Agelaius phoeniceus – red-winged blackbird
Icterus bullockii – Bullock's oriole
Icterus parisorum – Scott's oriole
Molothrus ater – brown-headed cowbird
Quiscalus mexicanus – great-tailed grackle
Sturnella neglecta – western meadowlark

FRINGILLIDAE - FINCHES

Carpodacus mexicanus – house finch Carduelis psaltria – lesser goldfinch



MAMMALS

LEPORIDAE - HARES AND RABBITS

Lepus californicus – black-tailed jackrabbit Sylvilagus bachmani – brush rabbit Sylvilagus audubonii – desert cottontail

SCIURIDAE – SQUIRRELS

Ammospermophilus leucurus – white-tailed antelope squirrel Spermophilus beecheyi – California ground squirrel

GEOMYIDAE - POCKET GOPHERS

Thomomys bottae – Botta's pocket gopher

HETEROMYIDAE - POCKET MICE AND KANGAROO RATS

Dipodomys sp. – kangaroo rat (sign)

MURIDAE - RATS AND MICE

Neotoma lepida – desert woodrat Peromyscys sp. – mouse

CANIDAE - WOLVES AND FOXES

* Canis familiaris – domestic dog Canis latrans – coyote

PROCYONIDAE – RACCOONS AND RELATIVES

Procyon lotor - common raccoon

MUSTELIDAE – WEASELS, SKUNKS, AND OTTERS

Mephitis mephitis – striped skunk Mustela frenata – long-tailed weasel

FELIDAE - CATS

Felis concolor - mountain lion

CERVIDAE - DEERS

Odocoileus hemionus - mule deer



WILDLIFE SPECIES - INVERTEBRATES

BUTTERFLIES AND MOTHS

HESPERIIDAE – SKIPPERS

Erynnis funeralis – funereal duskywing
Erynnis propertius – propertius duskywing
Erynnis sp. – Duskywing
Thorybes pylades – Northern Cloudywing

PAPILIONIDAE - SWALLOWTAILS

Papilio eurymedon – pale swallowtail Papilio rutulus – western tiger swallowtail Papilo zelicaon lucas – anise swallowtail

PIERIDAE – WHITES AND SULFURS

Anthocharis centhura – Felder's orangetip
Anthocharis sara – Sara orangetip
Colias Eurydice – California dogface
Colias harfordi – Harford's Sulfur
Colias sp. – Sulfur
Euchloe hyantis – Pearly marble
Euchloe lotta – Desert marble

Pieris rapae – European cabbage white Pontia beckerii – Becker's white

Pontia protodice – Common white Pontia sisymbrii – California white

RIODINIDAE - METALMARKS

Apodemia mormo virgulti – Behr's metalmark *Calephelis wrightii* – Wright's metalmark

LYCAENIDAE - BLUES, HAIRSTREAKS, AND COPPERS

Brephidium exile – western pygmy blue

Callophrys dumetorum perplexa – perplexing (green) hairstreak

Glaucopsyche lygdamus australis – southern blue

Icaria acmon acmon – acmon blue

Incisalia augustinus – brown elfin

Leptotes marina – marine blue

Philotes sonorensis – sonoran blue



NYMPHALIDAE – BRUSH-FOOTED BUTTERFLIES

Agraulis sp. – fritillary

Coenonympha californica californica – California ringlet

Junonia coenia – buckeye

Vanessa annabella – west coast lady

Vanessa sp. – lady

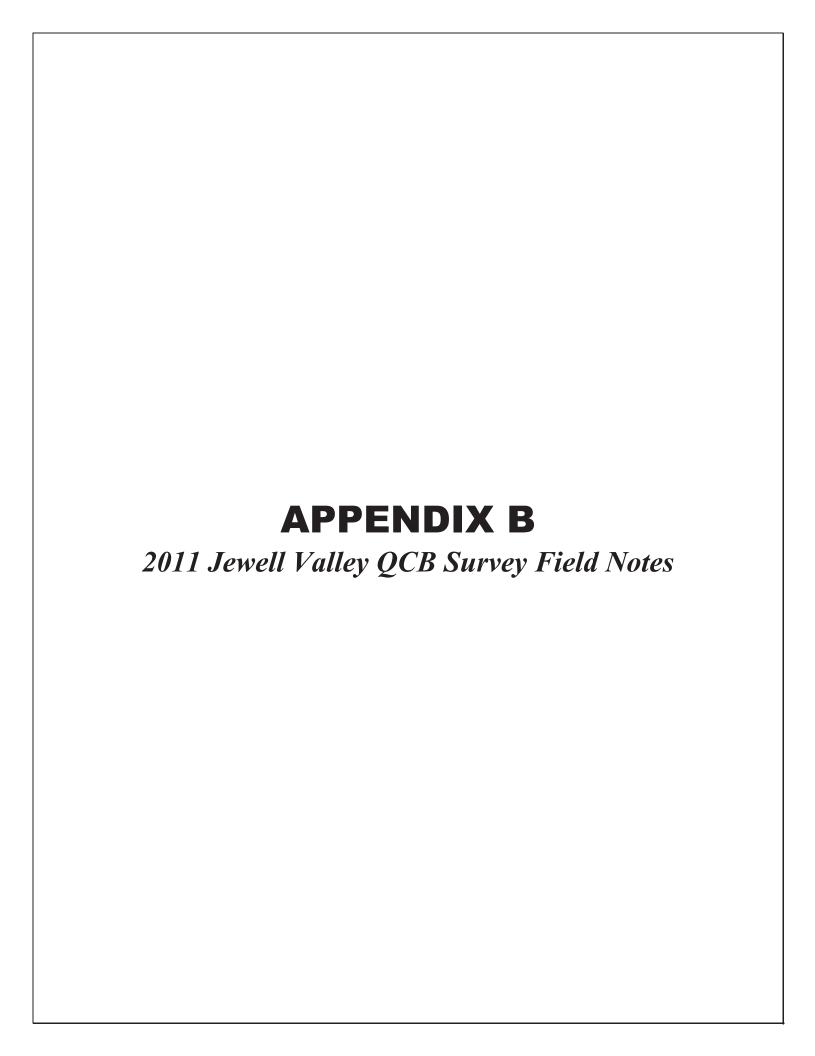
Vanessa cardui – painted lady

* signifies introduced (non-native) species



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- Brown (Wights) 1/1 White (Beckers) + HI Moth-underwing us wellow spots ~ 10 Dehr's Metalmark + HH 1 11
- Acmon blue 1 underving moth 1/3 ~15 How bords

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CAQU BTSP	Alirebs (photos),
COLA COM	Cl O consol: Carl N. M.
Bust wasp (la orwer flewby)	Stopped recording Britalmak
HAI BEUR	They are quite numerous
SPTO Rost on nest in	5 year
CAO DEJU deal	1515
CATH TYPE)	64F
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marily	quots to 15
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Eurereal type 111	
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Blackspotted york +441	
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skipper allbrace IVI	
Figure Blue 11	* _

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0930 415 pm 3/29 2011 Clear 8090CC Week3
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3-SMPH 5-8mph Jewel Jalley 64 720 Area
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CATO CATH
SPTO CORT
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WSJA GRRO
BTSP WCSP CANOR TUVE Flyover BTGW DEJU
CAWR TUVE flyover
BTGW DEJU
Striped racer
Soma 0.tip + + 1111
White-Becker or Common
Bon Elsin (1
Perplexing +11+11
Behris M.M. HIN HH-HH-HH-HH-HH-
Silv. blue 1) Mari
white-large
Larger de Gulhia
Skipper, buseblack HHI Desert norble HHI
Desert mainble + +++1
Lady Sp.
Eygny blue 11

Patches is carpet of annuals patches over is netty redshank chamise to wind Lots of 100

AMH 4/1/2011 Tewel Valley 76 F 0830 350 3-5mpH Clear Clear Harford HHIII Sara 04:p +++ 111 Metalwark, Beh's HHII many Blue, Southern 111 Desert marble 144 peoplexing 11+11 Pale Swallow tail very common - Fritting around the buckent buckeye Blue (acrown) ++++ NKSP M000 WREN BTSP There over flight subty low ROWR SCOR also pullylow with with the way of the pullylow CRTO SPTO WSJA DEJU CAQU CORA CAWR small yellow (sorgot the name)

Site

Johnson das red 182 gyle AMH Alot more whites (common, marble, san o'tip) also more sulfurs this week. Metal marks are abundant boths small+large. first bunkeye this week. Carpet of spring ephenerals in bloom now. Did a second pass thru the areas with the carpets (1904 and by with a grant of the

AMH ut. Site ASP Spplist for GOB survey WREN BEWR BTSP WCSP NOFL CAWR CORA CATIL CATO GRIRO WTSW DUD alion

ATTACHMENT B-1 2018 Focused Quino Checkerspot Butterfly Survey Report for the Torrey Wind Project, Boulevard, San Diego County, California	



MAIN OFFICE 605 THIRD STREET ENCINITAS, CALIFORNIA 92024 T 760.942.5147 T 800.450.1818 F 760.632.0164

June 29, 2018

U.S. Fish and Wildlife Service Attention: Stacey Love, Recovery Permit Coordinator 2177 Salk Avenue, Suite 250 Carlsbad, California 92008

Subject: 2018 Focused Ouino Checkerspot Butterfly Survey Report for the Torrey

Wind Project, Boulevard, San Diego County, California

Dear Ms. Love:

This letter report documents the spring 2018 results of a focused survey conducted by Dudek for the federally listed endangered Quino checkerspot butterfly (*Euphydryas editha quino*; Quino). This survey was conducted in support of the Torrey Wind project, a proposed wind energy facility project north of the community of Boulevard in southeastern San Diego County, California. This report is intended to satisfy reporting requirements for the following Quino-permitted biologists: Anita Hayworth (TE-781084-9.1), Brock Ortega (TE-813545-6), Callie Amoaku (TE-36118B-1), David Erik LaCoste (TE-027736-6), Diana Saucedo (TE-221287-1), Erin Bergman (TE-813545-5), Jeff Priest (TE-840619-6), Margie Mulligan (TE-88969B-0), Patricia Schuyler (TE-27502B-1), Paul M. Lemons (TE-051248-5), and Tricia Wotipka (working under TE-840619-6).

STUDY AREA AND EXISTING CONDITIONS

The study area is located in southeastern San Diego County north of the community of Boulevard, California (Figure 1, Survey Results – Index). The study area consisted of the anticipated project disturbance areas with a 250-foot buffer (total of 500-foot-wide area) (Figures 2 and 3, Survey Results). In early April, the study area was modified slightly, resulting in 56.9 acres being removed from the study area and 41.9 acres being added to the study area (Figures 2 and 3). The additional areas were slivers of area adjacent to the existing survey areas that were within the line of sight from the Weeks 1 through 4 surveys; therefore, the addition of these areas do not change the conclusion of the report.

The study area is situated north and south of Interstate (I-) 8 and east of Buckman Springs Road, at an elevation between approximately 3,280 feet and 4,120 feet above mean sea level. The landscape north of I-8 consists of a mixture of large-lot rural residences and open space with mountainous terrain consisting of steep slopes, prominent ridgelines, and rock outcroppings.

Ms. Stacey Love, Recovery Permit Coordinator

Subject: 2018 Focused Quino Checkerspot Butterfly Survey Report for the Campo Wind Project, Boulevard, San Diego County, California

Existing land uses within the vicinity of the study area can be characterized as predominantly rural, large-lot ranches and single-family homes, with a mixture of small-scale agriculture, recreational, and open space, with the exception of the Campo Band of Kumeyaay Indians Reservation, wind turbines to the north of I-8, and the Tule Wind Project. The 500-kilovolt Sunrise Powerlink traverses the northeast portion of the study area.

The study area is within the U.S. Geological Survey's 7.5-minute Sombrero Peak and Live Oak Springs quadrangle maps within Township 17 South, Range 6 East, Sections 01, 05, and 06; Township 17 South, Range 7 East, Sections 05 and 06; and Township 16 South, Range 6 East, Sections 19, 20, 29, 30, 31, and 32.

According to the U.S. Department of Agriculture, Natural Resources Conservation Service, the following seven soil series were mapped within the study area: Calpine (coarse sandy loam, 5% to 9% slopes); La Posta (loamy coarse sand, 5% to 30% slopes, eroded; rocky loamy coarse sand, 5% to 30% slopes, eroded); loamy alluvial land; Mottsville (loamy coarse sand, 2% to 9% slopes); and Tollhouse (rocky coarse sandy loam, 5% to 30% slopes, eroded) (USDA 2018).

VEGETATION COMMUNITIES

The study area supports chaparral, scrub, grassland, and oak woodland communities.

QUINO CHECKERSPOT BUTTERFLY SURVEY

Background Information

The Quino subspecies was added to the federal Endangered Species List by the U.S. Fish and Wildlife Service (USFWS) on January 16, 1997 (62 FR 2313–2322). The species, Edith's checkerspot (*E. editha*), has a range extending from British Columbia and Alberta, Canada, south through Colorado and Utah, and west along the coast to northern Baja California. It is divided into 20 subspecies, each of which has its own range and biological and morphological characteristics. In California, there are 12 subspecies (Garth and Tilden 1986), three of which are currently known to occur in Southern California. The Quino is the southwesternmost subspecies of *E. editha* (Mattoni et al. 1997).

The Quino is known to occur in association with a variety of plant communities, soil types, and elevations (up to 5,000 feet above mean sea level). The plant communities include clay soil meadows, open grasslands, coastal sage scrub, chamise chaparral, red shank chaparral, juniper woodlands, and semi-desert scrub (Ballmer et al. 2001). The Quino is also associated with clay soils that possess cryptogamic crusts and vernal pools (USFWS 2002).



Ms. Stacey Love, Recovery Permit Coordinator

Subject: 2018 Focused Quino Checkerspot Butterfly Survey Report for the Campo Wind Project, Boulevard, San Diego County, California

The Quino is a medium-sized butterfly (approximately 0.8-inch to 1.1-inch wingspan) belonging to the family Nymphalidae. The adults are primarily orange-red with white and have black markings on the dorsal wing surface. They are active primarily in March and April. This active period may vary depending on weather conditions (Ballmer et al. 2001). The adult butterfly feeds on nectar, which it obtains from spring annuals such as popcorn flower (*Plagiobothrys* spp., *Cryptantha* spp.), whitedaisy tidytips (*Layia glandulosa*), goldenbush (*Ericameria* spp.), pincushion (*Chaenactis* spp.), fiddleneck (*Amsinckia* spp.), chia (*Salvia columbariae*), and bluedicks (*Dichelostemma capitatum*), among others.

Adult males and virgin females sometimes "hilltop," or travel to elevated locations to find mates. While waiting for females to arrive, the males will often exhibit territorial behavior and will chase other butterflies that approach them. Frequently, the butterflies are observed in meadows or clearings where their host plants occur (Ballmer et al. 2001).

A female may lay 20 to 75 eggs at one time and may produce up to 1,200 eggs in her lifetime. The eggs hatch in approximately 10 days under favorable weather conditions and the young larvae will immediately begin to feed upon a host plant. The feeding larvae use the dwarf plantain (*Plantago erecta*), Patagonia plantain (*P. patagonica*), Coulter's snapdragon (*Antirrhinum coulterianum*), and Chinese houses (*Collinsia concolor*) as their host plants (Pratt 2009). Stiffbranch bird's beak (*Cordylanthus rigidus*) and exserted Indian paintbrush (*Castilleja exserta*) are considered secondary hosts (USFWS 2002).

After feeding, the early larva enters an obligatory aestival diapause (dormant stage), which may be broken after fall or winter rains (Murphy and White 1984; Osborne 1998). If adverse weather conditions occur, the emergent larva may reenter a diapause stage repeatedly, for up to 5 or 6 years, until favorable weather conditions permit sufficient growth of the host plant to allow the larva to complete its development.

The Quino was once common in Southern California. It ranged north into Ventura County, west to the Pacific Ocean, east to the deserts, and south into northern Baja California. Currently, it is known to occur only in a few, probably isolated, colonies in southwestern Riverside County, San Diego County, and northern Baja California.

Reasons for the butterfly's reduction in population are not well understood. Habitat loss due to degradation and fragmentation caused by urban and rural development, agricultural conversion, off-road vehicular use, the invasion of non-native plants and insects, fire management practices, over collecting, and adverse weather conditions have likely contributed to the species' decline (62 FR 2313–2322).

DUDEK

Ms. Stacey Love, Recovery Permit Coordinator

Subject: 2018 Focused Quino Checkerspot Butterfly Survey Report for the Campo Wind Project, Boulevard, San Diego County, California

Methods

Prior to the focused surveys, Dudek biologists conducted a habitat assessment within the study area to identify suitable habitat and exclude unsuitable habitat. Excluded areas consisted of developed areas and densely vegetated chaparral with tall shrubs forming closed canopies. Host plant surveys were performed in concert with the habitat assessment and augmented during the survey effort.

The 2014 USFWS protocol states that focused Quino surveys should begin the third week of February and end the second Saturday in May unless otherwise approved by USFWS. Surveys are to be conducted during the adult flight season by biologists possessing a recovery permit for this species pursuant to Section 10(a)(1)(A) of the federal Endangered Species Act (USFWS 2014). The 2018 focused surveys followed the 2014 USFWS protocol with the exception of an approved amendment included in the 2018 notification (USFWS 2018). The amendment allowed surveys to begin the week of March 12 to account for the location's higher elevation, generally colder conditions, and general later start of Quino emergence.

Focused Quino surveys were conducted over 10 visits from March 13, 2018, through May 12, 2018, per the 2014 USFWS Quino Checkerspot Butterfly Survey Guidelines (see Table 1). The survey area consisted of suitable habitat for Quino checkerspot (Figures 2 and 3). Surveys were conducted by Quino-permitted biologists Anita Hayworth (TE-781084-9.1), Brock Ortega (TE-813545-6), Callie Amoaku (TE-36118B-1), David Erik LaCoste (TE-027736-6), Diana Saucedo (TE-221287-1), Erin Bergman (TE-813545-5), Jeff Priest (TE-840619-6), Margie Mulligan (TE-88969B-0), Patricia Schuyler (TE-27502B-1), Paul M. Lemons (TE-051248-5), and Tricia Wotipka (working under TE-840619-6).

Table 1
Schedule of Focused Quino Checkerspot Butterfly Surveys

Survey Area	Survey Pass	Survey Date	Biologist	Survey Time	Conditions	Notes
N/A	Habitat Assessment	2018-02-16	SC	8:00 AM-5:00 PM	Air temp: 43°F–57°F; ground temp: 70°F–77°F; 80% cloud cover; 0 mph wind	
1	1	2018-03-12	CA, PS	9:45 AM-4:50 PM	Air temp: 62°F-75°F; ground temp: 70°F-77°F; 20%-40% cloud cover; 0-2 mph wind; clear	Survey included area 3
	2	2018-03-19	CA, EB, PS	9:27 AM-2:19 PM	Air temp: 55°F–57°F; ground temp: 55°F–57°F; 20% cloud cover; 0–5 mph wind; clear	
	3	2018-03-28	EB, PS	9:00 AM-12:45 PM	Air temp: 65°F–74°F; ground temp: 76°F; 0% cloud cover; 0–4 mph wind	

Subject: 2018 Focused Quino Checkerspot Butterfly Survey Report for the Campo Wind Project, Boulevard, San Diego County, California

Table 1
Schedule of Focused Quino Checkerspot Butterfly Surveys

Survey Area	Survey Pass	Survey Date	Biologist	Survey Time	Conditions	Notes
	4	2018-04-02	CA, PS	9:06 AM-1:14 PM	Air temp: 58°F–68°F; ground temp: 63°F–70°F; 0% cloud cover; 0–8 mph wind; clear	
	5	2018-04-14	CA, EB	9:09 AM-1:18 PM	Air temp: 69°F–71°F; ground temp: 70°F–72°F; 0% cloud cover; 0–4 mph wind; clear	
	6	2018-04-25	JP	8:30 AM-3:30 PM	Air temp: 70°F–80°F; ground temp: 70°F–84°F; 0% cloud cover; 0–14 mph wind	
	7	2018-04-29	JP	8:30 AM-3:30 PM	Air temp: 60°F–66°F; ground temp: 60°F–66°F; 0%–10% cloud cover; 3–14 mph wind	
	8	2018-05-03	PS	8:37 AM-3:40 PM	Air temp: 63°F-74°F; ground temp: 62°F-78°F; 0% cloud cover; 0-5 mph wind; clear	
	9	2018-05-07	JP	9:00 AM-4:00 PM	Air temp: 68°F–86°F; ground temp: 67°F–90°F; 0% cloud cover; 0–12 mph wind	
	10a	2018-05-12	MM	8:32 AM-12:43 PM	49°F–53°F; 50%–100% cloud cover; 2–10 mph wind; drizzle to patchy	
2	1	2018-03-09	CA, PS	9:04 AM-2:30 PM	Air temp: 66°F–68°F; ground temp: 70°F; 30%–80% cloud cover; 0–12 mph wind; clear to patchy	Survey included area 5
	2	2018-03-20	CA, EB, PS	2:38 PM-5:19 PM	70°F-75°F; 0-5 mph wind; clear	
	3	2018-03-30	CA, EB	8:55 AM-12:38 PM	Air temp: 73°F–87°F; ground temp: 70°F–92°F; 0% cloud cover; 0–2 mph wind; clear	
	4	2018-04-05	JP	9:00 AM-4:30 PM	Air temp: 67°F–75°F; ground temp: 65°F–77°F; 0%–30% cloud cover; 3–12 mph wind; clear	
	5 (Portion)	2018-04-09	PL	10:00 AM-2:40 PM	Air temp: 76°F–83°F; ground temp: 75°F–79°F; 0%–10% cloud cover; 2–12 mph wind	
	5 (Finish)	2018-04-10	PL	1:15 PM-5:00 PM	Air temp: 89°F–91°F; ground temp: 87°F–88°F; 10% cloud cover; 3–8 mph wind	
	6	2018-04-14	JP	8:30 AM-4:30 PM	Air temp: 62°F–74°F; ground temp: 62°F–76°F; 0% cloud cover; 2–10 mph wind; clear	
	7	2018-04-28	JP	8:30 AM-4:30 PM	Air temp: 64°F–78°F; ground temp: 66°F–80°F; 0% cloud cover; 0–14 mph wind	

Subject: 2018 Focused Quino Checkerspot Butterfly Survey Report for the Campo Wind Project, Boulevard, San Diego County, California

Table 1
Schedule of Focused Quino Checkerspot Butterfly Surveys

Survey Area	Survey Pass	Survey Date	Biologist	Survey Time	Conditions	Notes
	8	2018-05-04	CA	8:34 AM-4:26 PM	Air temp: 72°F-79°F; ground temp: 79°F-81°F; 0% cloud cover; 1-3 mph wind; Clear	
	9	2018-05-07	CA, PS	12:40 PM-4:46 PM	Air temp: 86°F–90°F; ground temp: 88°F–93°F; 0% cloud cover; 1–8 mph wind; clear	
	10ª	2018-05-11	JP	8:45 AM-2:00 PM	Air temp: 62°F–72°F; ground temp: 62°F–79°F; 20% cloud cover; 2–29 mph wind	
3	1	2018-03-12	CA, PS	9:45 AM-4:50 PM	Air temp: 62°F-75°F; ground temp: 70°F-77°F; 20%-40% cloud cover; 0-2 mph wind; clear	Survey included area 1
	2	2018-03-21	CA, EB, PS	11:40 AM-2:00 PM	Air temp: 70°F–74°F; ground temp: 73°F–77°F; 0%–20% cloud cover; 0–2 mph wind; clear	
	3	2018-03-28	EB, PS	12:47 PM-4:17 PM	Air temp: 75°F–78°F; ground temp: 75°F –76°F; 0% cloud cover; 0–3 mph wind; clear	
	4	2018-04-05	PL	9:00 AM-4:00 PM	Air temp: 67°F–80°F; ground temp: 65°F–82°F; 0%–20% cloud cover; 2–10 mph wind	
	5	2018-04-09	EB, PS	9:53 AM-1:24 PM	Air temp: 79°F–83°F; ground temp: 77°F–84°F; 0% cloud cover; 0–5 mph wind; clear	
	6	2018-04-15	JP	8:30 AM-3:30 PM	Air temp: 64°F–77°F; ground temp: 62°F–80°F; 10%–90% cloud cover; 0–12 mph wind	
	7	2018-04-24	CA, PS	9:09 AM-12:44 PM	Air temp: 82°F–86°F; ground temp: 78°F–88°F; 20%–30% cloud cover; 0–1 mph wind; clear	
	8	2018-05-03	АН	10:05 AM-5:15 PM	Air temp: 21°F–62°F; ground temp: 21.5°F–64°F; 0% cloud cover; 3–8 mph wind	
	9	2018-05-07	CA, PS	8:35 AM-12:35 PM	Air temp: 76°F–86°F; ground temp: 70°F–88°F; 0%–10% cloud cover; 0–5 mph wind; clear	
	10 ^a	2018-05-11	TW	8:45 AM-2:00 PM	Air temp: 62°F–72°F; ground temp: 62°F–79°F; 1-4 mph wind;; patchy	
4	1 (Portion)	2018-03-09	JP	10:30 AM-4:30 PM	Air temp: 64°F–74°F; ground temp: 68°F–70°F; 30%–90% cloud cover; 3–10 mph wind; patchy to clear	

Table 1
Schedule of Focused Quino Checkerspot Butterfly Surveys

Survey Area	Survey Pass	Survey Date	Biologist	Survey Time	Conditions	Notes
	1 (Finish)	2018-03-13	JP	10:40 AM-12:10 PM	Air temp: 70°F–74°F; ground temp: 74°F–76°F; 100% cloud cover; 1–3 mph wind	
	2	2018-03-21	CA, EB, PS	2:00 PM-4:35 PM	Air temp: 74°F–75°F; ground temp: 77°F–80°F; 50%–90% cloud cover; 0–3 mph wind; patchy to overcast	
	3	2018-03-28	PL	8:00 AM-3:10 PM	Air temp: 64°F–73°F; ground temp: 60°F–70°F; 0% cloud cover; 0–6 mph wind; clear	
	4	2018-04-05	TW	9:30 AM-4:30 PM	68°F-80°F; 0%-20% cloud cover; 0-5 mph wind	
	5	2018-04-09	ВО	8:05 AM-4:10 PM	Air temp: 70°F–83°F; ground temp: 69°F–82°F; 0% cloud cover; 0–5 mph wind; clear	
	6	2018-04-20	PL	10:00 AM-4:45 PM	Air temp: 71°F-75°F; ground temp: 69°F-73°F; 0% cloud cover; 0-4 mph wind; clear	
	7	2018-04-25	CA, EB	9:44 AM-3:36 PM	Air temp: 79°F–75°F; ground temp: 78°F; 0%–10% cloud cover; 1–9 mph wind; clear	
	8	2018-05-04	TW	9:15 AM-4:15 PM	Air temp: 74°F–82°F; ground temp: 78°F–84°F; 0% cloud cover; 1–3 mph wind; clear	
	9	2018-05-08	CA	8:59 AM-3:39 PM	Air temp: 84°F–90°F; ground temp: 90°F–92°F; 10% cloud cover; 0–2 mph wind; clear	
	10	2018-05-12	JP	10:00 AM-4:45 PM	Air temp: 54°F–58°F; ground temp: 62°F–64°F; 10% cloud cover; 0–10 mph wind	
5	1	2018-03-09	CA, PS	9:04 AM-2:30 PM	Air temp: 66°F–68°F; ground temp: 70°F; 30%–80% cloud cover; 0–12 mph wind; clear to patchy	Survey included area 2
	2	2018-03-20	CA, EB, PS	12:20 AM-2:38 PM	Air temp: 73°F–75°F; ground temp: 76°F5; clear	
	3	2018-03-30	CA, EB	12:45 PM-4:18 PM	Air temp: 84°F–84.9°F; ground temp: 82.5°F–83°F; 0%–50% cloud cover; 0–3 mph wind; clear to patchy	
	4	2018-04-03	АН	9:40 AM-4:20 PM	Air temp: 61°F–74°F; ground temp: 63°F–76°F; 20% cloud cover; 2–8 mph wind	
	5 (Portion)	2018-04-09	EB, PS	1:30 PM-4:30 PM	Air temp: 78°F-86°F; ground	

Table 1
Schedule of Focused Quino Checkerspot Butterfly Surveys

Survey Area	Survey Pass	Survey Date	Biologist	Survey Time	Conditions	Notes
					temp: 79°F–80°F; 0%–50% cloud cover; 0–5 mph wind; clear	
	5 (Finish)	2018-04-10	EB, PS	9:48 AM-10:52 AM	Air temp: 81°F–87°F; ground temp: 82°F–84°F; 10%–20% cloud cover; 0–2 mph wind; clear	
	6	2018-04-20	EB, PS	9:28 AM-1:21 PM	Air temp: 67°F-72°F; ground temp: 74°F; 0% cloud cover; 0-3 mph wind; clear	
	7 (Portion)	2018-04-25	EB	10:14 AM-12:00 PM	Air temp: 73°F–76°F; ground temp: 77°F; 0% cloud cover; 0–1 mph wind; clear	
	7 (Finish)	2018-04-25	MM	9:55 AM-3:35 PM	75°F–76°F; 0% cloud cover; 3–8 mph wind; Clear	
	8	2018-05-05	DS, EL	8:00 AM-3:35 PM	Air temp: 77°F–85°F; ground temp: 81°F–91°F; 0% cloud cover; 2–7 mph wind; clear	Survey included area 6
	9	2018-05-09	EL	8:00 AM-3:15 PM	Air temp: 78°F-90°F; ground temp: 78°F-95°F; 0%-10% cloud cover; 1-8 mph wind; clear	
	10	2018-05-13	JP	8:30 AM-4:00 PM	Air temp: 58°F–70°F; ground temp: 62°F–76°F; 0% cloud cover; 0–10 mph wind	
6	1	2018-03-19	CA, EB, PS	2:22 PM-4:31 PM	Air temp: 61°F–64°F; ground temp: 63°F–66°F; 10% cloud cover; 0–4 mph wind; clear	
	2	2018-03-21	CA, EB, PS	8:58 AM-11:30 AM	Air temp: 72°F-78°F; ground temp: 75°F; 10%-40% cloud cover; 0-5 mph wind; clear	
	3	2018-03-29	EB, PS	8:55 AM-12:30 PM	Air temp: 74°F-79°F; ground temp: 64°F-80°F; 0% cloud cover; 0-4 mph wind; clear	
	4 (Portion)	2018-04-02	CA, PS	1:31 PM-4:04 PM	Air temp: 67°F–70°F; ground temp: 69°F–72°F; 0% cloud cover; 0–16 mph wind; clear	
	4 (Finish)	2018-04-06	JP	9:15 AM-11:15 AM	Air temp: 64°F–74°F; ground temp: 62°F–74°F; 30%–40% cloud cover; 2–7 mph wind; patchy	
	5	2018-04-10	EB, PS	10:52 AM-3:00 PM	Air temp: 87°F–90°F; ground temp: 82°F–90°F; 10%–20% cloud cover; 0–4 mph wind; clear	
	6	2018-04-18	PL	8:20 AM-4:05 PM	Air temp: 61°F–65°F; ground temp: 60°F–64°F; 3–8 mph wind; clear	

Table 1
Schedule of Focused Quino Checkerspot Butterfly Surveys

Survey Area	Survey Pass	Survey Date	Biologist	Survey Time	Conditions	Notes
	7	2018-04-20	TW	9:50 AM-5:30 PM	Air temp: 64°F–75°F; ground temp: 68°F–74°F; 0%–10% cloud cover; 0–3 mph wind; patchy to clear	
	8 (Portion)	2018-04-24	CA, PS	1:02 PM-5:20 PM	Air temp: 83°F–86°F; ground temp: 88°F; 20%–30% cloud cover; clear	
	8 (Finish)	2018-05-05	DS, EL	8:00 AM-3:35 PM	Air temp: 77°F–85°F; ground temp: 81°F–91°F; 0% cloud cover; 2–7 mph wind; clear	Survey included area 5
	9	2018-05-07	AH	10:28 AM-6:42 PM	Air temp: 78°F–79°F; ground temp: 76°F–83°F; 0% cloud cover; 3–8 mph wind	
	10	2018-05-11	MM	9:04 AM-2:02 PM	Air temp: 60°F-71°F; 2-13 mph wind; clear	
7	1	2018-03-13	CA, PS	10:29 AM-2:45 PM	Air temp: 70°F–71°F; ground temp: 72°F–74°F; 100% cloud cover; 0–3 mph wind; overcast	
	2 (Portion)	2018-03-19	AH, CA, PS	2:03 PM-5:15 PM	Air temp: 61°F–66°F; ground temp: 63°F–69°F; 10%–50% cloud cover; 2–8 mph wind; patchy	
	2 (Finish)	2018-03-20	CA, EB, PS	9:26 AM-12:20 PM	Air temp: 71°F–72°F; ground temp: 76°F; 0%–10% cloud cover; 0–10 mph wind; clear	
	3	2018-03-29	EB, PS	12:30 PM-4:03 PM	Air temp: 80°F–85°F; ground temp: 77°F–81°F; 0% cloud cover; 0–4 mph wind; clear	
	4	2018-04-04	PS	8:31 AM-3:28 PM	Air temp: 66°F–79°F; ground temp: 62°F–84°F; 20% cloud cover; 0–5 mph wind; patchy	
7, 8b	5 (Portion)	2018-04-10	EB, PS	2:37 PM-4:09 PM	Air temp: 90°F–94°F; ground temp: 90°F–92°F; 0%–10% cloud cover; 0–4 mph wind; clear	
	5 (Finish)	2018-04-11	EB	9:56 AM-4:09 PM	Air temp: 79°F–82°F; ground temp: 80°F–83.6°F; 0%–10% cloud cover; 0–3 mph wind; clear	
	6	2018-04-17	EB	8:58 AM-5:03 PM	Air temp: 67°F–84°F; ground temp: 67°F–85°F; 0% cloud cover; 0–3 mph wind; clear	
	7 (Portion)	2018-04-22	EB	9:39 AM-1:44 PM	Air temp: 75°F–83°F; ground temp: 79°F–85°F; 0% cloud cover; 0–2 mph wind; clear	
	7 (Finish)	2018-04-20	EB, PS	1:24 PM-4:01 PM	Air temp: 72°F-74°F; ground	

Table 1
Schedule of Focused Quino Checkerspot Butterfly Surveys

Survey Area	Survey Pass	Survey Date	Biologist	Survey Time	Conditions	Notes
					temp: 74°F–75°F; 0% cloud cover; 0–3 mph wind; clear	
	8	2018-04-27	TW	4:00 PM-8:15 AM	Air temp: 61°F–78°F; ground temp: 62°F–74°F; clear	
	9	2018-05-07	EB	9:04 AM-4:59 PM	Air temp: 73°F-74°F; ground temp: 76°F; 0%-20% cloud cover; 0-1 mph wind; clear	
	10ª	2018-05-11	EL	8:15 AM-1:45 PM	Air temp: 60°F-70°F; ground temp: 63°F-72°F; 0%-10% cloud cover; 3-26 mph wind; clear	
8b	1	2018-03-19	АН	10:30 AM-2:00 PM	Air temp: 56°F-61°F; ground temp: 60°F-63°F; 20% cloud cover; 3-12 mph wind	
	2	2018-03-21	PL	8:30 AM-12:40 PM	Air temp: 62°F-71°F; ground temp: 60°F-73°F; 30%-40% cloud cover; 0-6 mph wind	
	3	2018-03-29	PL	8:30 AM-12:10 PM	Air temp: 72°F–75°F; ground temp: 67°F–71°F; 0% cloud cover; 0–5 mph wind; clear	
	4	2018-04-06	JP	11:30 AM-3:00 PM	Air temp: 74°F–78°F; ground temp: 75°F–80°F; 40%–70% cloud cover; 3–14 mph wind; patchy	

AH = Anita Hayworth (TE-781084-9.1); BO = Brock Ortega (TE-813545-6); CA = Callie Amoaku (TE-36118B-1); DS = Diana Saucedo (TE-221287-1); EB = Erin Bergman (TE-813545-5); EL = David Erik LaCoste (TE-027736-6); JP = Jeffrey Priest (TE-840619-6); MM = Margie Mulligan (TE-88969B-0); PL = Paul Lemons (TE-051248-5); PS = Patricia Schuyler (TE-27502B-1); SC = Shana Carey: TW = Tricia Wotipka (TE-840619-6).

N/A = not applicable; mph = miles per hour.

The biologists were provided with 200-scale (1 inch = 200 feet) aerial maps of the study area. Binoculars were used to aid in detecting and identifying butterfly and other wildlife species. Surveys also focused on identifying Quino host plants; however, only dried host plants from last year were observed. Therefore, no host plants were mapped within the study area.

The survey methods consisted of slowly walking roughly parallel transects spaced approximately 30 feet (10 meters) apart throughout all suitable habitats within the 517-acre study area. The study area was divided into eight survey areas, ranging from 67 acres to 82 acres each (Figures 2 and 3). Survey routes were arranged to thoroughly cover the survey area at a rate of no more than 10 acres per person hour. All wildlife species were recorded and are included in Appendix A.

^a Surveys terminated early due to non-protocol weather conditions.

b Survey area 8 was reduced to 7.7 acres after pass 4 and the remaining passes were completed in conjunction with survey area 7.

Subject: 2018 Focused Quino Checkerspot Butterfly Survey Report for the Campo Wind Project, Boulevard, San Diego County, California

Surveys were conducted only during acceptable weather conditions (i.e., surveys were not conducted during fog, drizzle, or rain; winds greater than 15 miles per hour measured 4–6 feet above ground level for more than 30 seconds; temperature in the shade at ground level less than 60°F on a clear, sunny day; or temperature in the shade at ground level less than 70°F on an overcast or cloudy day). Survey times, personnel, and conditions during the Quino survey are shown in Table 1. Copies of the surveyors' field notes are included as Appendix B.

Weather conditions varied throughout the survey season, and numerous surveys were postponed or ended early/began late due to high winds, cloud cover, and/or low temperatures. Because of these weather conditions, some areas were surveyed over 2 days to complete the survey. If a survey pass was missed due to sustained inclement weather, a makeup survey was performed on non-consecutive days the following week, in accordance with the 2014 USFWS protocol.

RESULTS

No Quino were observed during the 2018 focused surveys. A total of 33 butterfly species were observed during the surveys. The weeks in which these butterflies were observed are shown in Tables 2A and 2B.

Table 2A
Butterflies Observed on Site Weeks 1–5

		Week					
Scientific Name	Common Name	1	2	3	4	5	
	Hespe	riidae – Skippe	ers				
Erynnis brizo	sleepy duskywing	_	_	_	_	_	
Erynnis funeralis	funereal duskywing	Χ	Χ	Χ	Χ	Χ	
Erynnis propertius	Propertius duskywing	_	_	_	Χ	Χ	
Hylephila phyleus	fiery skipper	_	_	_	_	_	
	duskywing sp.	_	_	_	_	Χ	
	Nymphalidae –	Brush-Footed	Butterflies				
Adelpha bredowii	California sister	_	_	_	_	_	
Chlosyne californica	California patch	_	_	_	_	_	
Chlosyne gabbii	Gabb's checkerspot	_	_	_	_	_	
Danaus gilippus	queen	_	_	_	_	Χ	
Limenitis Iorquini	Lorquin's admiral	_	_	_	_	_	
Nymphalis californica	California tortoiseshell	_	Χ	Χ	_	_	
Vanessa cardui	painted lady	_	_	Χ	_	_	
	lady sp.	Χ	Χ	_	_	_	

Table 2A
Butterflies Observed on Site Weeks 1–5

		Week						
Scientific Name	Common Name	1	2	3	4	5		
Lycaenidae – Blues and Hairstreaks								
Callophrys augustinus	brown elfin	_	_	Χ	Χ	Χ		
Callophrys dumetorum	bramble hairstreak	X	Χ	Χ	Χ	Χ		
Glaucopsyche lygdamus australis	southern blue	X	Χ	X	_	_		
Icaricia acmon acmon	Acmon blue	_	Χ	Χ	Χ	Χ		
Leptotes marina	marine blue	_	_	_	_	_		
Philotes sonorensis	Sonoran blue	_	Χ	_	_	_		
Strymon melinus	gray hairstreak	_	_	_	_	_		
	blue sp.	X	_	_	Χ	Χ		
	Papilio	nidae – Swallow	rtails					
Papilio eurymedon	pale swallowtail	_		_	_	_		
Papilio rutulus	western tiger swallowtail	X	Χ	Χ	_	Χ		
	Pieridae	– Whites and S	ulfurs					
Anthocharis cethura	desert orangetip	_		_	Χ	Χ		
Anthocharis sara	Pacific Sara orangetip	X	Χ	Χ	Χ	Χ		
Colias eurydice	California dogface	X	_	_	Χ	_		
Colias eurytheme	orange sulphur	_		_	Χ	_		
Euchloe hyantis lotta	desert pearly marble	_		Χ	Χ	Χ		
Pontia protodice	checkered white	_	Χ	Χ	Χ	Χ		
Pontia sisymbrii	spring white	_	_	_	Χ	Χ		
	white sp.		Χ			_		
	sulphur sp.			_	Χ	Χ		
	Riodii	nidae – Metalma	rks					
Apodemia virgulti	Behr's metalmark	X	Χ	Χ	Χ	Χ		

Table 2B
Butterflies Observed on Site Weeks 6–10

		Week						
Scientific Name	Common Name	6	7	8	9	10		
Hesperiidae – Skippers								
Erynnis brizo	sleepy duskywing	_	Χ	_	_	_		
Erynnis funeralis	funereal duskywing	Χ	Χ	Χ	Χ	_		
Erynnis propertius	Propertius duskywing	Χ	Χ	Χ		Χ		
Hylephila phyleus	fiery skipper	_	_		Χ	_		

Table 2B
Butterflies Observed on Site Weeks 6–10

		Week				
Scientific Name	Common Name	6	7	8	9	10
	duskywing sp.	_	_	_	_	_
	Nymphalidae	– Brush-Footed	Butterflies			
Adelpha bredowii	California sister	_	_	_	Χ	Χ
Chlosyne californica	California patch	_	Χ	_	_	_
Chlosyne gabbii	Gabb's checkerspot	_	Χ	Χ	_	_
Danaus gilippus	Queen	_	_	_	_	_
Limenitis lorquini	Lorquin's admiral	_	_	_	Χ	Χ
Nymphalis californica	California tortoiseshell	_	_	_	_	_
Vanessa cardui	painted lady	_		_	_	_
	lady sp.	_	Χ	_	_	_
	Lycaenidae	e – Blues and Ha	nirstreaks			
Callophrys augustinus	brown elfin	X	_	_	_	_
Callophrys dumetorum	bramble hairstreak	X	Χ	_	Χ	_
Glaucopsyche lygdamus australis	southern blue	X	Χ	_	Χ	_
Icaricia acmon acmon	Acmon blue	X	Χ	Χ	Χ	Χ
Leptotes marina	marine blue	_	_	_	_	_
Philotes sonorensis	Sonoran blue	_	_	_	_	_
Strymon melinus	gray hairstreak	_	_	_	Χ	_
	blue sp.	_	_	_	_	_
	Papilio	nidae – Swallow	rtails			
Papilio eurymedon	pale swallowtail	X	Χ	Χ	Χ	_
Papilio rutulus	western tiger swallowtail	X		Χ	_	_
	Pieridae	e – Whites and S	Culfurs			
Anthocharis cethura	desert orangetip	Χ	_	_	_	_
Anthocharis sara	Pacific Sara orangetip	Χ	Χ	Χ	_	_
Colias eurydice	California dogface	_	_	_	_	_
Colias eurytheme	orange sulphur	_		_	_	_
Euchloe hyantis lotta	desert pearly marble	Χ	Χ	Χ	Χ	
Pontia protodice	checkered white	Χ	_	_	_	_
Pontia sisymbrii	spring white	Χ	Χ	Χ	_	Χ
	white sp.	Χ	Χ	_	Χ	_
	sulphur sp.	_	_	_	_	_
	Riodii	nidae – Metalma				
Apodemia virgulti	Behr's metalmark	Х	Χ	Χ	Χ	Χ



No Quino larval host plants were observed within the study area during the habitat assessment or focused surveys. Table 3 includes the known and observed adult Quino nectar plants (according to Mattoni et al. 1997; USFWS 2002, 2003; 67 FR 18355–18395). Larval host plants are also included in Table 3 and are shown in bold print. All plant species that were in bloom were documented in the field notes.

Table 3
Quino Adult Nectar Plants and Larval Food Plants

Scientific Name	Common Name	Observed During Focused Survey					
Apiaceae – Carrot Family							
Lomatium dasycarpum SSp. dasycarpum	woolly-fruit lomatium	X					
Lomatium utriculatum	common lomatium	_					
	Asteraceae – Sunflower Family						
Achillea millefolium	common yarrow, milfoil	_					
Lasthenia californica or Lasthenia gracilis	common goldfields	X					
Lasthenia coronaria	southern goldfields	_					
Layia platyglossa	coastal tidytips, common tidytips	_					
	Boraginaceae – Borage Family						
Amsinckia menziesii	Menzies' fiddleneck, rancher's fireweed	_					
Amsinckia menziesii var. intermedia	rancher's fiddleneck	_					
Amsinckia menziesii var. menziesii	rigid fiddleneck	_					
Cryptantha spp. or Plagiobothrys spp.	popcorn flower	X					
Phacelia distans	distant phacelia, wild-heliotrope	_					
	Fabaceae – Pea Family						
Acmispon (=Lotus) spp.	deerweed, spanishclover, lotus	_					
	Hydrophyllaceae – Waterleaf Family						
Eriodictyon crassifolium var. crassifolium	thickleaf yerba santa	_					
Eriodictyon trichocalyx var. trichocalyx	hairy yerba santa	_					
	Lamiaceae – Mint Family						
Salvia columbariae	chia	X					
	Plantaginaceae – Plantain Family						
Antirrhinum coulterianum	Coulter's snapdragon	_					
Collinsia sp.	Chinese houses	_					
Keckiella antirrhinoides var. antirrhinoides	snapdragon penstemon	_					
	heartleaf keckiella, climbing bush						
Keckiella cordifolia	penstemon	_					
Plantago erecta	dwarf plantain	_					
Plantago patagonica	woolly plantain	_					

Subject: 2018 Focused Quino Checkerspot Butterfly Survey Report for the Campo Wind Project, Boulevard, San Diego County, California

Table 3
Quino Adult Nectar Plants and Larval Food Plants

Scientific Name	Common Name	Observed During Focused Survey						
Polemoniaceae – Phlox Family								
Gilia angelensis	grassland gilia	_						
Gilia capitata ssp. abrotanifolia	ball gilia	_						
Linanthus spp.	ground pink	X						
	Polygonaceae – Buckwheat Family							
Eriogonum fasciculatum	California buckwheat	_						
	Orobanchaceae – Broom-Rape Family							
Castilleja exserta	exserted Indian paintbrush, common owl's-clover	_						
	Scrophulariaceae – Figwort Family							
Cordylanthus rigidus ssp. setiger	stiffbranch birds beak, dark-tipped bird's-beak	_						
	Liliaceae – Lily Family							
Allium haematochiton	redskin onion	_						
Allium peninsulare	Mexicali onion, red-flower onion	_						
Allium praecox	early onion	_						
Bloomeria clevelandii	San Diego goldenstar	_						
Dichelostemma capitatum	bluedicks	_						
Muilla maritima	sea muilla, common muilla							

Sources: List derived from Mattoni et al. 1997; USFWS 2002, 2003; 67 FR 18355-18395 (for Euphydryas editha).

Note: Plants listed in **bold print** are known Quino larval host plant species.

Dudek certifies that the information in this survey report and the attached figures and appendices fully and accurately represents the work conducted by the Quino-permitted biologists who conducted this focused survey.

Subject: 2018 Focused Quino Checkerspot Butterfly Survey Report for the Campo Wind Project, Boulevard, San Diego County, California

Please feel free to contact Brock Ortega at bortega@dudek.com or Callie Amoaku at cford@dudek.com if you have any questions regarding the contents of this report.

Sincerely,

Anita Hayworth

Permit #TE-781084-9.1

Diana Saucedo Permit #TE-221287-1

Patricia Schuvler

Patricia Schuyler Permit #TE-27502B-1 Brock Ortega

Permit #TE-813545-6

Erin Bergman

Permit #TE-813545-5

Paul Lemons

Permit #TE-051248-5

Callie Amoaku

Callie Amoaku Permit #TE-36118B-1 David Erik LaCoste

Margie Mulligan

Permit #TE-027736-6

Permit #TE-88969B-0

Jeffrey Priest

Permit #TE-840619-6

Trini Waripko

Tricia Wotipka Permit #TE-840619-6

Att: Figure 1, Survey Results – Index Map

Figure 2, Survey Results Figure 3, Survey Results

Appendix A – List of Wildlife Species Observed during the 2018 Torrey Wind Project Quino Survey

Appendix B – 2018 Torrey Wind Project Quino Survey Field Notes

cc: Brock Ortega, Dudek Matthew Valerio, Dudek

REFERENCES CITED

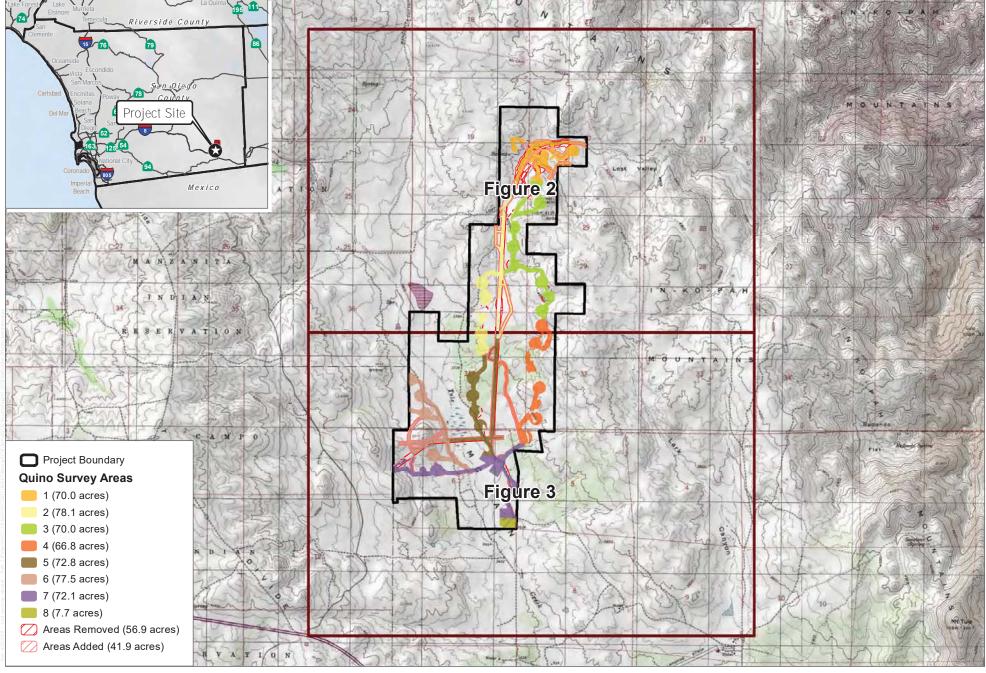
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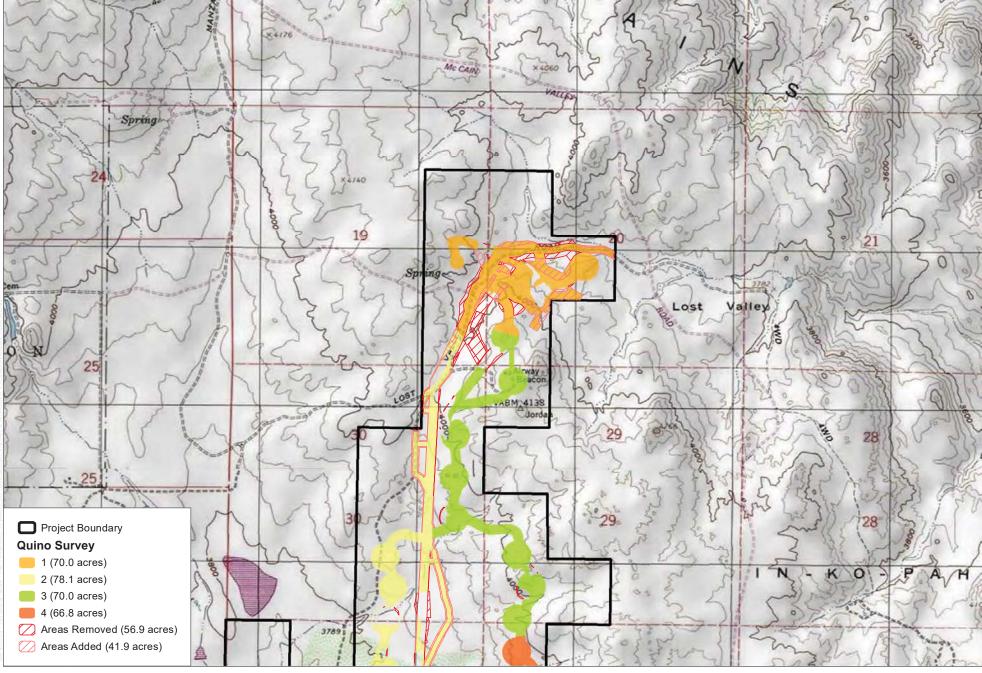
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- Subject: 2018 Focused Quino Checkerspot Butterfly Survey Report for the Campo Wind Project, Boulevard, San Diego County, California
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SOURCE: USGS 2018

FIGURE 1 Survey Results - Index

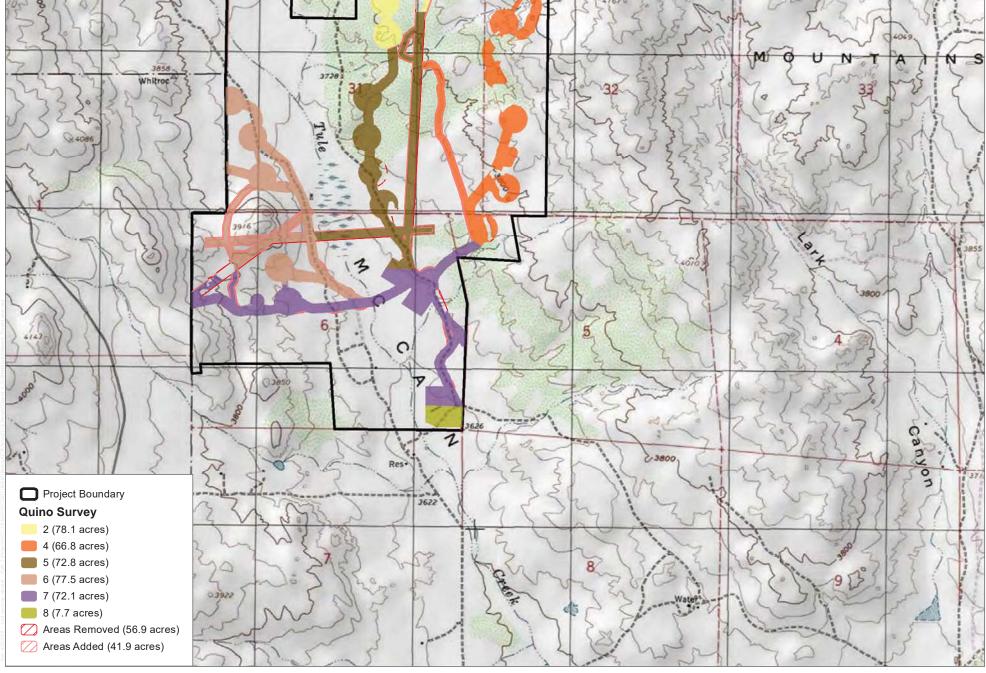
Survey Results - Index
Torrey Wind Project - Results of 2018 Quino Checkerspot Survey



SOURCE: USGS 2018

Survey Results

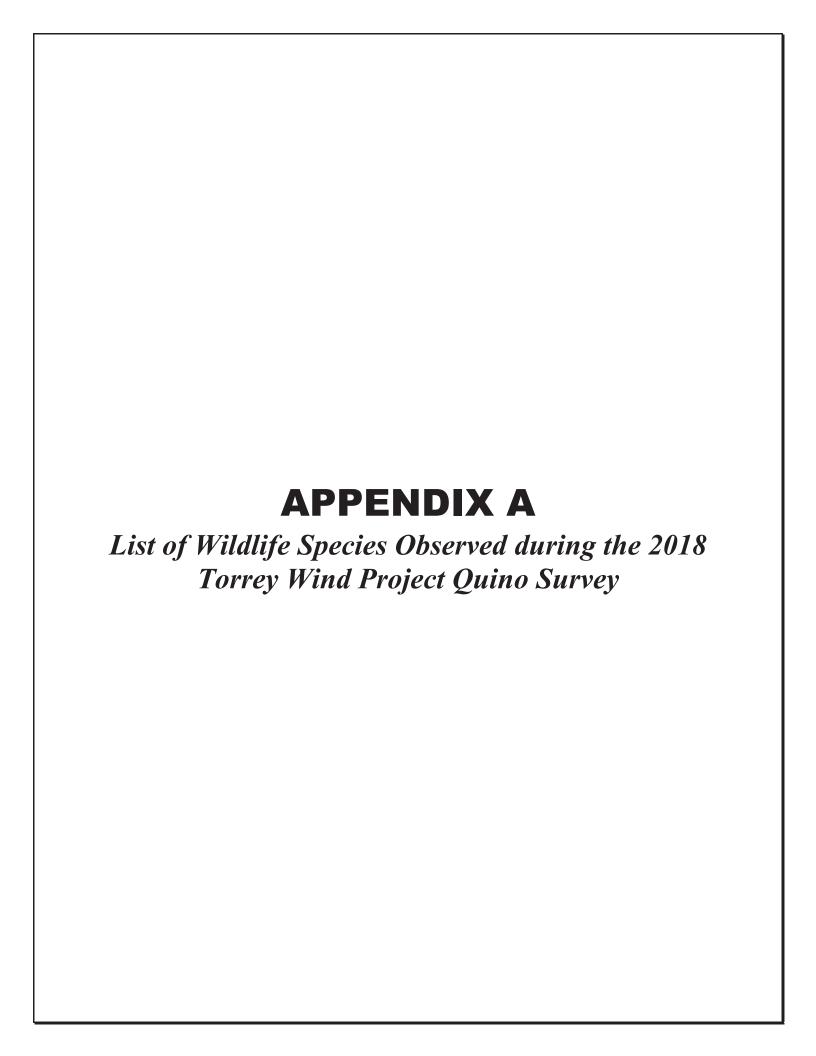
FIGURE 2



SOURCE: USGS 2018

FIGURE 3
Survey Results

DUDEK & 0 1,000 2,000 Feet



APPENDIX A

List of Wildlife Species Observed during the 2018 Torrey Wind Project Quino Survey

BIRD

BLACKBIRDS, ORIOLES, AND ALLIES

ICTERIDAE—BLACKBIRDS

Icterus bullockii—Bullock's oriole

Icterus cucullatus—hooded oriole

Icterus parisorum—Scott's oriole

Sturnella neglecta—western meadowlark

* Molothrus ater—brown-headed cowbird

BUSHTITS

AEGITHALIDAE—LONG-TAILED TITS AND BUSHTITS

Psaltriparus minimus—bushtit

CARDINALS, GROSBEAKS, AND ALLIES

CARDINALIDAE—CARDINALS AND ALLIES

Pheucticus melanocephalus—black-headed grosbeak

Piranga ludoviciana—western tanager

FALCONS

FALCONIDAE—CARACARAS AND FALCONS

Falco sparverius—American kestrel

FINCHES

FRINGILLIDAE—FRINGILLINE AND CARDUELINE FINCHES AND ALLIES

Haemorhous mexicanus—house finch

Spinus lawrencei—Lawrence's goldfinch

Spinus psaltria—lesser goldfinch

FLYCATCHERS

TYRANNIDAE—TYRANT FLYCATCHERS

Contopus sordidulus—western wood-pewee

Empidonax difficilis—Pacific-slope flycatcher

Myiarchus cinerascens—ash-throated flycatcher

Sayornis nigricans—black phoebe



Sayornis saya—Say's phoebe Tyrannus verticalis—western kingbird Tyrannus vociferans—Cassin's kingbird

HAWKS

ACCIPITRIDAE—HAWKS, KITES, EAGLES, AND ALLIES

Accipiter cooperii—Cooper's hawk

Buteo jamaicensis—red-tailed hawk

Buteo lineatus—red-shouldered hawk

HUMMINGBIRDS

TROCHILIDAE—HUMMINGBIRDS

Calypte anna—Anna's hummingbird Calypte costae—Costa's hummingbird Selasphorus rufus—rufous hummingbird

JAYS, MAGPIES, AND CROWS

CORVIDAE—CROWS AND JAYS

Aphelocoma californica—California scrub-jay Corvus brachyrhynchos—American crow Corvus corax—common raven Cyanocitta stelleri—Steller's jay

LARKS

ALAUDIDAE—LARKS

Eremophila alpestris—horned lark

MOCKINGBIRDS AND THRASHERS

MIMIDAE—MOCKINGBIRDS AND THRASHERS

Mimus polyglottos—northern mockingbird Oreoscoptes montanus—sage thrasher Toxostoma redivivum—California thrasher

NEW WORLD QUAIL

ODONTOPHORIDAE—NEW WORLD QUAIL

Callipepla californica—California quail



NEW WORLD VULTURES

CATHARTIDAE—NEW WORLD VULTURES

Cathartes aura—turkey vulture

OLD WORLD WARBLERS AND GNATCATCHERS

SYLVIIDAE—SYLVIID WARBLERS

Polioptila caerulea—blue-gray gnatcatcher

OWLS

TYTONIDAE—BARN OWLS

Tyto alba—barn owl

STRIGIDAE—TYPICAL OWLS

Bubo virginianus—great horned owl

PIGEONS AND DOVES

COLUMBIDAE—PIGEONS AND DOVES

Zenaida macroura—mourning dove

* Streptopelia decaocto—Eurasian collared-dove

QUAILS, PHEASANTS, AND RELATIVES

PHASIANIDAE—PARTRIDGES, GROUSE, TURKEYS, AND OLD WORLD QUAIL

Meleagris gallopavo—wild turkey

ROADRUNNERS AND CUCKOOS

CUCULIDAE—CUCKOOS, ROADRUNNERS, AND ANIS

Geococcyx californianus—greater roadrunner

SILKY FLYCATCHERS

PTILOGONATIDAE—SILKY-FLYCATCHERS

Phainopepla nitens—phainopepla

STARLINGS AND ALLIES

STURNIDAE—STARLINGS

* Sturnus vulgaris—European starling



SWALLOWS

HIRUNDINIDAE—SWALLOWS

Petrochelidon pyrrhonota—cliff swallow

SWIFTS

APODIDAE—SWIFTS

Aeronautes saxatalis—white-throated swift

THRUSHES

TURDIDAE—THRUSHES

Sialia mexicana—western bluebird

TITMICE

PARIDAE—CHICKADEES AND TITMICE

Baeolophus inornatus—oak titmouse

VIREOS

VIREONIDAE—VIREOS

Vireo gilvus—warbling vireo

WOOD WARBLERS AND ALLIES

PARULIDAE—WOOD-WARBLERS

Cardellina pusilla—Wilson's warbler

Oreothlypis celata—orange-crowned warbler

Setophaga coronata—yellow-rumped warbler

Setophaga occidentalis—hermit warbler

Setophaga townsendi—Townsend's warbler

WOODPECKERS

PICIDAE—WOODPECKERS AND ALLIES

Colaptes auratus—northern flicker

Melanerpes formicivorus—acorn woodpecker

Picoides nuttallii—Nuttall's woodpecker

Picoides scalaris—ladder-backed woodpecker



WRENS

TROGLODYTIDAE—WRENS

Campylorhynchus brunneicapillus—cactus wren Salpinctes obsoletus—rock wren Thryomanes bewickii—Bewick's wren Troglodytes aedon—house wren

WRENTITS

TIMALIIDAE—BABBLERS

Chamaea fasciata—wrentit

NEW WORLD SPARROWS

PASSERELLIDAE—NEW WORLD SPARROWS

Amphispiza bilineata—black-throated sparrow
Artemisiospiza nevadensis—sagebrush sparrow
Junco hyemalis—dark-eyed junco
Melospiza melodia—song sparrow
Melozone crissalis—California towhee
Pipilo maculatus—spotted towhee
Spizella atrogularis—black-chinned sparrow
Spizella breweri—Brewer's sparrow
Spizella passerina—chipping sparrow
Zonotrichia leucophrys—white-crowned sparrow

INVERTEBRATE

BUTTERFLIES

LYCAENIDAE—BLUES, HAIRSTREAKS, AND COPPERS

Callophrys augustinus—brown elfin
Callophrys dumetorum—bramble hairstreak
Glaucopsyche lygdamus australis—southern blue
Icaricia acmon acmon—Acmon blue
Philotes sonorensis—Sonoran blue
Strymon melinus—gray hairstreak

NYMPHALIDAE—BRUSH-FOOTED BUTTERFLIES

Adelpha bredowii—California sister



Chlosyne californica—California patch

Chlosyne gabbii—Gabb's checkerspot

Danaus gilippus—queen

Limenitis lorquini—Lorquin's admiral

Nymphalis californica—California tortoiseshell

Vanessa annabella—west coast lady

Vanessa cardui—painted lady

RIODINIDAE—METALMARKS

Apodemia mormo virgulti—Behr's metalmark

HESPERIIDAE—SKIPPERS

Erynnis brizo—sleepy duskywing

Erynnis funeralis—funereal duskywing

Erynnis propertius—Propertius duskywing

Hylephila phyleus—fiery skipper

PAPILIONIDAE—SWALLOWTAILS

Papilio eurymedon—pale swallowtail

Papilio rutulus—western tiger swallowtail

PIERIDAE—WHITES AND SULFURS

Anthocharis cethura—desert orangetip

Anthocharis sara sara—Pacific sara orangetip

Colias eurydice—California dogface

Colias eurytheme—orange sulphur

Euchloe hyantis lotta—desert pearly marble

Pontia protodice—checkered white

Pontia sisymbrii—spring white

MAMMAL

CANIDS

CANIDAE—WOLVES AND FOXES

Canis latrans—coyote

CATS

FELIDAE—CATS

Lynx rufus—bobcat



HARES AND RABBITS

LEPORIDAE—HARES AND RABBITS

Lepus californicus bennettii—San Diego black-tailed jackrabbit Lepus californicus—black-tailed jackrabbit Sylvilagus audubonii—desert cottontail Sylvilagus bachmani—brush rabbit

POCKET GOPHERS

GEOMYIDAE—POCKET GOPHERS

Thomomys bottae—Botta's pocket gopher

SQUIRRELS

SCIURIDAE—SQUIRRELS

Ammospermophilus leucurus—white-tailed antelope squirrel Spermophilus (Otospermophilus) beecheyi—California ground squirrel Tamias merriami—Merriam's chipmunk
Tamias obscurus—California chipmunk

UNGULATES

CERVIDAE—DEERS

Odocoileus hemionus-mule deer

RATS, MICE, AND VOLES

CRICETIDAE—RATS, MICE, AND VOLES

Neotoma sp.—woodrat

REPTILE

LIZARDS

PHRYNOSOMATIDAE—IGUANID LIZARDS

Callisaurus draconoides—zebra-tailed lizard Phrynosoma blainvillii—Blainville's horned lizard Sceloporus occidentalis—western fence lizard Sceloporus orcutti—granite spiny lizard Uta stansburiana—common side-blotched lizard



ANGUIDAE—ALLIGATOR LIZARDS

Elgaria multicarinata—southern alligator lizard

TEIIDAE—WHIPTAIL LIZARDS

Aspidoscelis tigris stejnegeri—San Diegan tiger whiptail

SNAKES

COLUBRIDAE—COLUBRID SNAKES

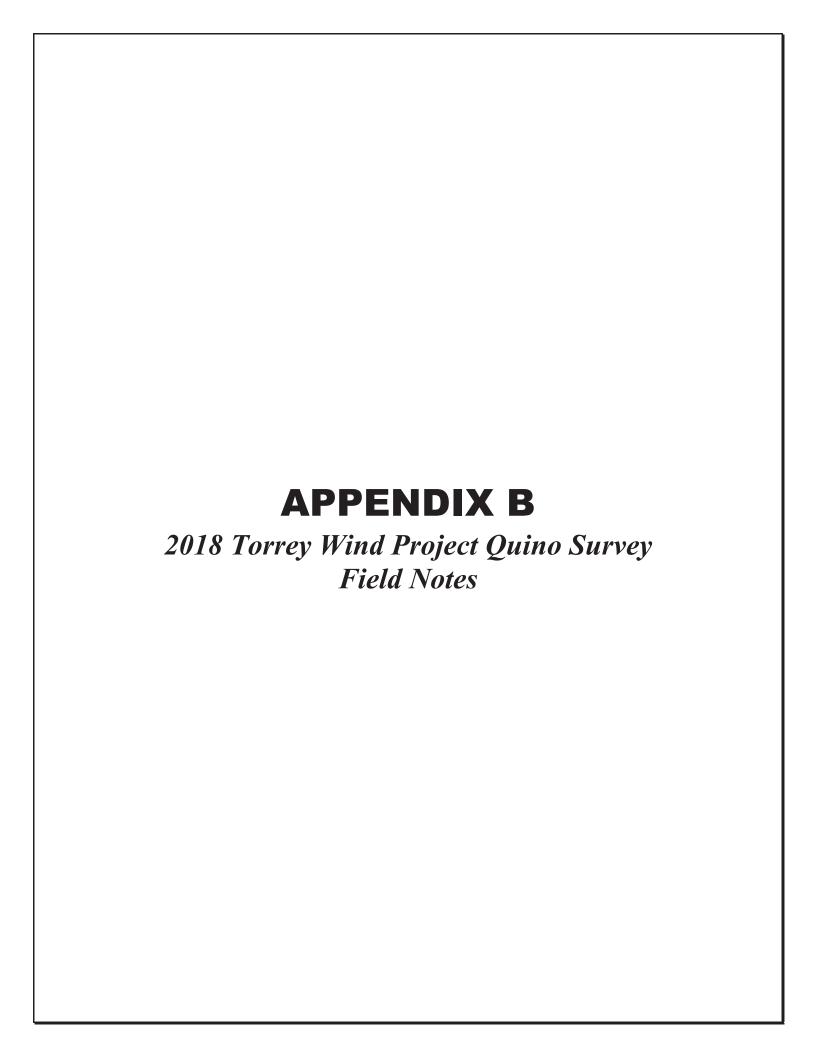
Coluber lateralis—striped racer Pituophis catenifer—gophersnake

VIPERIDAE—VIPERS

Crotalus oreganus—western rattlesnake

* Signifies introduced (non-native) species







GENERAL SURVEY INFORMATION				
Project Name	Campo Wind (Private Land)			
Survey Date	2018-03-12			
Biologist(s)	Callie Amoaku, Patricia Schuyler			
Survey Area	Private 1, Private 3			
Survey Pass	1			

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:45:00	62	70	40	2	clear	
2	11:45:00	75	77	20	2	clear	
3	13:06:00	72	76	20	2	patchy	
4	14:56:00	74	78	40	2	patchy	
End	16:50:00	71	74	50	1	patchy	

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (19)	Lady sp. (1+)	western tiger swallowtail (1)			
bramble hairstreak (9)	Pacific sara orangetip (4)				
funereal duskywing (5)	southern blue (1)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
(none)					

INCIDENTAL PLANT LIST					
(none)					



GENERAL SURVEY INFORMATION				
Project Name	Campo Wind (Private Land)			
Survey Date	2018-03-09			
Biologist(s)	Callie Amoaku, Patricia Schuyler			
Survey Area	Private 2, Private 5			
Survey Pass	1			

SURVEY CONDITIONS							
Status	Notes						
Start	09:04:00	66	70	30	2	clear	
1100	11:00:00	76	79	30	4	clear	Gusts 10mph
1300	13:00:00	72	76	40	5	patchy	Gusts 10mph
1430	14:30:00	73	76	60	10	patchy	Gusts 15mph
End	15:30:00	68	70	80	12	patchy	

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (30)	bramble hairstreak (2)	southern blue (1)			
Blue sp. (1+)	Pacific sara orangetip (2)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
(none)				

INCIDENTAL PLANT LIST					
(none)					



GENERAL SURVEY INFORMATION				
Project Name	Campo Wind (Private Land)			
Survey Date	2018-03-09			
Biologist(s)	Jeffrey Priest			
Survey Area	Private 4			
Survey Pass	1			

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	10:30:00	74	70	30	10	patchy	
End	16:30:00	64	68	90	10		Conditions at 4:00 pm: air 66, wind 8-12 with gusts 8-15 mph, could cover 90%.

	BUTTERFLY LIST SPECIES (COUNT)				
Behr's metalmark (3)	Pacific sara orangetip (8) west coast lady (1)				
funereal duskywing (1)	southern blue (3)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)						
Bewick's wren (1+)	California towhee (1+)	mourning dove (1+)				
Botta's pocket gopher (1+)	common raven (1+)	mule deer (1+)				
bushtit (1+)	common side-blotched lizard (1+)	northern flicker (1+)				
California chipmunk (1+)	coyote (1+)	phainopepla (1+)				
California ground squirrel (1+)	greater roadrunner (1+)	red-tailed hawk (1+)				
California scrub-jay (1+)	house finch (1+)	turkey vulture (1+)				
California thrasher (1+)	lesser goldfinch (1+)	western meadowlark (1+)				

INCIDENTAL PLANT LIST				
(none)				



GENERAL SURVEY INFORMATION				
Project Name Campo Wind (Private Land)				
Survey Date	2018-03-13			
Biologist(s)	Jeffrey Priest			
Survey Area	Private 4			
Survey Pass	1			

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	10:40:00	70	74	100	3		Protocol temperatures reached at 1040. Previous conditions: 0940, air 64 F, ground 66 F, 100% cc. 1000, air 64 F, ground 66 F, 100% cc. 1017, air 68 F, ground 68 F, 100% cc.
End	12:10:00	74	76	100	3		

	BUTTERFLY LIST SPECIES (COUNT)			
Behr's metalmark (3)	bramble hairstreak (1)	Pacific sara orangetip (7)		

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
acorn woodpecker (1+)	California ground squirrel (1+)	mourning dove (1+)			
American crow (1+)	California quail (1+)	mule deer (1+)			
Anna's hummingbird (1+)	California scrub-jay (1+)	red-tailed hawk (1+)			
black-tailed jackrabbit (1+)	common raven (1+)	turkey vulture (1+)			
Botta's pocket gopher (1+)	coyote (1+)	western meadowlark (1+)			
brush rabbit (1+)	house finch (1+)				

INCIDENTAL PLANT LIST				
(none)				



GENERAL SURVEY INFORMATION				
Project Name Campo Wind (Private Land)				
Survey Date 2018-03-19				
Biologist(s) Callie Amoaku, Erin Bergman, Patricia Schuyler				
Survey Area	Private 6			
Survey Pass	1			

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	14:22:00	64	66	10	4	clear	
End	16:31:00	61	63	10	3	clear	

	BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (7)	funereal duskywing (1) southern blue (1)					
bramble hairstreak (5)	Pacific sara orangetip (1)	western bluebird (1+)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
song sparrow (1+) California quail (1+)		red-tailed hawk (1+)		
American kestrel (1+)	California scrub-jay (1+)	turkey vulture (1+)		
black-throated sparrow (1+)	common raven (1+)	western meadowlark (1+)		
bobcat (1+)	phainopepla (1+)			
bushtit (1+)	red-shouldered hawk (1+)			

INCIDENTAL PLANT LIST		
(none)		



GENERAL SURVEY INFORMATION		
Project Name	Campo Wind (Private Land)	
Survey Date	2018-03-13	
Biologist(s)	Callie Amoaku, Patricia Schuyler	
Survey Area	Private 7	
Survey Pass	1	

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	10:29:00	71	74	100	0	overcast	
2	11:43:00	70	73	100	2	overcast	
3	13:38:00	76	75	100	2	overcast	
End	14:44:00	70	72	100	3	overcast	
End	14:45:00	72	70	100	5	overcast	

BUTTERFLY LIST SPECIES (COUNT)		
Behr's metalmark (15)	California dogface (2)	Pacific sara orangetip (19)
Blue sp. (1+)	funereal duskywing (6)	southern blue (4)
bramble hairstreak (6)	Lady sp. (1+)	

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)		
(none)		

	INCIDENTAL PLANT LIST	
(none)		



GENERAL SURVEY INFORMATION		
Project Name	Campo Wind (Private Land)	
Survey Date	2018-03-19	
Biologist(s)	Anita Hayworth	
Survey Area	Private 8	
Survey Pass	1	

			SURVEY	CONDITI	ONS		
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	10:30:00	56	60	20	12		
End	14:00:00	61	63	20	8		

BUTTERFLY LIST SPECIES (COUNT)			
Behr's metalmark (4)	funereal duskywing (1)	western bluebird (1+)	
bramble hairstreak (3)	Pacific sara orangetip (4)		

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)			
oak titmouse (1+)	California towhee (1+)	northern flicker (1+)	
black-tailed jackrabbit (1+)	common raven (1+)	western fence lizard (1+)	
black phoebe (1+)	European starling (1+)	white-crowned sparrow (1+)	
bushtit (1+)	house finch (1+)		
California scrub-jay (1+)	lesser goldfinch (1+)		

	INCIDENTAL PLANT LIST	
(none)		



GENERAL SURVEY INFORMATION		
Project Name	Campo Wind (Private Land)	
Survey Date	2018-03-19	
Biologist(s)	Callie Amoaku, Erin Bergman, Patricia Schuyler	
Survey Area	Private 1	
Survey Pass	2	

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:27:00	55	55	20	4	clear	Still too cold to start
End	10:43:00	57	57	20	5	clear	Still cold
End	11:41:00	59.7	66	10	9	clear	Start 11:42
End	12:46:00	62	68	10	10	clear	
End	14:19:00	64		10	10	clear	

BUTTERFLY LIST SPECIES (COUNT)				
Behr's metalmark (15)	funereal duskywing (3)			
bramble hairstreak (14)	Pacific sara orangetip (1)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
song sparrow (1+)	phainopepla (1+)				
black-throated sparrow (1+)	California scrub-jay (1+)	wrentit (1+)			
bushtit (1+)	common raven (1+)				

INCIDENTAL PLANT LIST				
(none)				



GENERAL SURVEY INFORMATION					
Project Name Campo Wind (Private Land)					
Survey Date	2018-03-20				
Biologist(s)	Callie Amoaku, Erin Bergman, Patricia Schuyler				
Survey Area	Private 2				
Survey Pass	2				

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	14:38:00	75	0		5		
End	17:19:00	70	0	10	5	clear	

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (54)	funereal duskywing (1)	White species (1)			
bramble hairstreak (9)	Pacific sara orangetip (3)				
California tortoiseshell (1)	southern blue (2)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
California scrub-jay (1+)	coyote (1+)	wrentit (1+)			
chipping sparrow (1+)	mule deer (1+)				
common raven (1+)	red-tailed hawk (1+)				

INCIDENTAL PLANT LIST				
(none)				



GENERAL SURVEY INFORMATION					
Project Name Campo Wind (Private Land)					
Survey Date	2018-03-21				
Biologist(s)	Callie Amoaku, Erin Bergman, Patricia Schuyler				
Survey Area	Private 3				
Survey Pass	2				

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	11:40:00	70	73	20	2	clear	Warm day
End	14:00:00	74	77	0	2	clear	

	BUTTERFLY LIST SPECIES (COUNT)				
Behr's metalmark (56)	checkered white (2)	western bluebird (1+)			
bramble hairstreak (19)	Pacific sara orangetip (8)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)		
California scrub-jay (1+)	red-tailed hawk (1+)	white-tailed antelope squirrel (1+)
chipping sparrow (1+)	spotted towhee (1+)	wrentit (1+)
common raven (1+)	turkey vulture (1+)	

INCIDENTAL PLANT LIST			
(none)			



GENERAL SURVEY INFORMATION			
Project Name	Campo Wind (Private Land)		
Survey Date	2018-03-21		
Biologist(s)	Callie Amoaku, Erin Bergman, Patricia Schuyler		
Survey Area	Private 4		
Survey Pass	2		

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	14:00:00	74	77	50	3	patchy	
2	15:04:00	75	80	90	3	overcast	
End	16:35:00	70	74	90	3	overcast	

BUTTERFLY LIST SPECIES (COUNT)				
Behr's metalmark (37)	checkered white (2)			
bramble hairstreak (8)	Pacific sara orangetip (8)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
Blainville's horned lizard (1+)	California scrub-jay (1+)	red-tailed hawk (1+)			
oak titmouse (1+)	California towhee (1+)	turkey vulture (1+)			
black-tailed jackrabbit (1+)	chipping sparrow (1+)	white-tailed antelope squirrel (1+)			
bushtit (1+)	common raven (1+)				

INCIDENTAL PLANT LIST				
(none)				



GENERAL SURVEY INFORMATION			
Project Name	Campo Wind (Private Land)		
Survey Date	2018-03-20		
Biologist(s)	Callie Amoaku, Erin Bergman, Patricia Schuyler		
Survey Area	Private 5		
Survey Pass	2		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	00:20:00	73	0	0	8	clear	
End	14:38:00	75	76	50	2	clear	

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (22)	funereal duskywing (4)	Sonoran blue (1)			
bramble hairstreak (4)	Lady sp. (1+)				
California tortoiseshell (1)	Pacific sara orangetip (2)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
black-tailed jackrabbit (1+)	common raven (1+)	mule deer (1+)			
bushtit (1+)	common side-blotched lizard (1+)	western meadowlark (1+)			
California ground squirrel (1+)	greater roadrunner (1+)				
California scrub-jay (1+)	house finch (1+)				

INCIDENTAL PLANT LIST					
(none)					



GENERAL SURVEY INFORMATION			
Project Name	Campo Wind (Private Land)		
Survey Date	2018-03-21		
Biologist(s)	Callie Amoaku, Erin Bergman, Patricia Schuyler		
Survey Area	Private 6		
Survey Pass	2		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:58:00	72	75	40	5	clear	
End	11:30:00	78	0	10	4	clear	

BUTTERFLY LIST SPECIES (COUNT)					
Acmon blue (2)	checkered white (6)	western bluebird (1+)			
Behr's metalmark (28)	Pacific sara orangetip (4)	western tiger swallowtail (2)			
bramble hairstreak (5)	southern blue (2)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)						
oak titmouse (1+)	dark-eyed junco (1+)	southern alligator lizard (1+)				
acorn woodpecker (1+)	granite spiny lizard (1+)	western meadowlark (1+)				
Bewick's wren (1+)	northern flicker (1+)	wrentit (1+)				
California quail (1+)	Nuttall's woodpecker (1+)	yellow-rumped warbler (1+)				
California scrub-jay (1+)	phainopepla (1+)					
California towhee (1+)	red-tailed hawk (1+)					

INCIDENTAL PLANT LIST				
(none)				



GENERAL SURVEY INFORMATION			
Project Name	Campo Wind (Private Land)		
Survey Date	2018-03-19		
Biologist(s)	Anita Hayworth		
Survey Area	Private 7		
Survey Pass	2		

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	14:03:00	61	63	10	5		
End	16:04:00	61	63	50	8		

	BUTTERFLY LIST SPECIES (COUNT)	
Pacific sara orangetip (1+)		

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
oak titmouse (1+) California thrasher (1+) white-crowned sparrow (1+)					
California scrub-jay (1+) common raven (1+)					

INCIDENTAL PLANT LIST				
(none)				



GENERAL SURVEY INFORMATION				
Project Name	Campo Wind (Private Land)			
Survey Date	2018-03-19			
Biologist(s)	Callie Amoaku, Patricia Schuyler			
Survey Area	Private 7			
Survey Pass	2			

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	16:40:00	66	69	30	3	patchy	
End	17:15:00	64	67	30	3	patchy	

	BUTTERFLY LIST SPECIES (COUNT)		
Behr's metalmark (1)	Lady sp (1)	Pacific sara orangetip (1)	

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
(none)				

	INCIDENTAL PLANT LIST	
(none)		



GENERAL SURVEY INFORMATION		
Project Name	Campo Wind (Private Land)	
Survey Date	2018-03-20	
Biologist(s)	Callie Amoaku, Erin Bergman, Patricia Schuyler	
Survey Area	Private 7	
Survey Pass	2	

			SURVE	CONDIT	IONS		
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:26:00	71		10	9	clear	
End	12:20:00	72		0	10	clear	

	BUTTERFLY LIST SPECIES (COUNT)	
Behr's metalmark (25)	funereal duskywing (2)	
bramble hairstreak (6)	Pacific sara orangetip (8)	

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)			
Blainville's horned lizard (1+)	California quail (1+)	phainopepla (1+)	
song sparrow (1+)	California scrub-jay (1+)	red-tailed hawk (1+)	
acorn woodpecker (1+)	common side-blotched lizard (1+)		
bushtit (1+)	northern flicker (1+)		

	INCIDENTAL PLANT LIST	
Deinandra floribunda		



GENERAL SURVEY INFORMATION		
Project Name	Campo Wind (Private Land)	
Survey Date	2018-03-21	
Biologist(s)	Paul Lemons	
Survey Area	Private 8	
Survey Pass	2	

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:30:00	62	60	40	3		
End	12:40:00	71	73	30	6		

	BUTTERFLY LIST SPECIES (COUNT)	
bramble hairstreak (1+)	funereal duskywing (1+)	

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)			
acorn woodpecker (1+)	California towhee (1+)	rock wren (1+)	
American kestrel (1+)	Cassin's kingbird (1+)	white-crowned sparrow (1+)	
Botta's pocket gopher (1+)	common raven (1+)	woodrat (1+)	
bushtit (1+)	desert cottontail (1+)	wrentit (1+)	
California quail (1+)	Eurasian collared-dove (1+)		
California scrub-jay (1+)	European starling (1+)		

INCIDENTAL PLANT LIST		
(none)		



GENERAL SURVEY INFORMATION		
Project Name	Campo Wind (Private Land)	
Survey Date	2018-03-28	
Biologist(s)	Erin Bergman, Patricia Schuyler	
Survey Area	Private 1	
Survey Pass	3	

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:00:00	65	0	0	4		
End	12:45:00	74	0	0	4		

	BUTTERFLY LIST SPECIES (COUNT)				
Behr's metalmark (25)	funereal duskywing (2)	painted lady (2)			
bramble hairstreak (9)	Pacific sara orangetip (9)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
black-throated sparrow (1+)	chipping sparrow (1+)	turkey vulture (1+)			
California quail (1+)	common raven (1+)				
California scrub-jay (1+)	phainopepla (1+)				

INCIDENTAL PLANT LIST					
(none)					



GENERAL SURVEY INFORMATION					
Project Name	Campo Wind (Private Land)				
Survey Date	2018-03-30				
Biologist(s)	Callie Amoaku, Erin Bergman				
Survey Area	Private 2				
Survey Pass	3				

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:55:00	73	70	0	1	clear	
2	10:40:00	87	92	0	2	clear	
End	12:38:00	84	83	0	2	clear	

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (134)	California tortoiseshell (1)	funereal duskywing (3)			
bramble hairstreak (13)	checkered white (11)	Pacific sara orangetip (35)			
brown elfin (1)	desert pearly marble (8)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)						
Cooper's hawk (1+) California towhee (1+) spotted towhee (1+)						
Bewick's wren (1+)	chipping sparrow (1+)	wrentit (1+)				
California quail (1+) common raven (1+)						
California scrub-jay (1+)	red-tailed hawk (1+)					

INCIDENTAL PLANT LIST				
(none)				



GENERAL SURVEY INFORMATION					
Project Name Campo Wind (Private Land)					
Survey Date	2018-03-28				
Biologist(s)	Erin Bergman, Patricia Schuyler				
Survey Area	Private 3				
Survey Pass	3				

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	12:47:00	75	75	0	3	clear	
End	16:17:00	78	76	0	3	clear	

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (43)	funereal duskywing (1)				
bramble hairstreak (12)	Pacific sara orangetip (12)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)		
California quail (1+)	California scrub-jay (1+)	California towhee (1+)

INCIDENTAL PLANT LIST				
(none)				



GENERAL SURVEY INFORMATION		
Project Name	Campo Wind (Private Land)	
Survey Date	2018-03-28	
Biologist(s)	Paul Lemons	
Survey Area	Private 4	
Survey Pass	3	

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:00:00	64	60	0	2	clear	
End	15:10:00	73	70	0	6	clear	

BUTTERFLY LIST SPECIES (COUNT)			
Behr's metalmark (1+)	bramble hairstreak (1+)	Pacific sara orangetip (1+)	
blue-gray gnatcatcher (1+)	funereal duskywing (1+)		

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
Bewick's wren (1+)	dark-eyed junco (1+)	northern flicker (1+)		
bushtit (1+)	granite spiny lizard (1+)	sage thrasher (1+)		
California quail (1+)	greater roadrunner (1+)	western fence lizard (1+)		
California scrub-jay (1+)	house finch (1+)	white-crowned sparrow (1+)		
California thrasher (1+)	ladder-backed woodpecker (1+)	wrentit (1+)		
common raven (1+)	Merriam's chipmunk (1+)			

INCIDENTAL PLANT LIST			
(none)			



GENERAL SURVEY INFORMATION		
Project Name	Campo Wind (Private Land)	
Survey Date	2018-03-30	
Biologist(s)	Callie Amoaku, Erin Bergman	
Survey Area	Private 5	
Survey Pass	3	

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	12:45:00	84	83	0	2	clear	
End	16:18:00	84.9	82.5	50	3	patchy	

BUTTERFLY LIST SPECIES (COUNT)		
Behr's metalmark (52)	brown elfin (4)	Sulphur sp. (1+)
blue-gray gnatcatcher (1+)	desert pearly marble (7)	
bramble hairstreak (11)	Pacific sara orangetip (18)	

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
oak titmouse (1+)	dark-eyed junco (1+)	western kingbird (1+)		
bushtit (1+)	gophersnake (1+)	western rattlesnake (1+)		
California scrub-jay (1+)	greater roadrunner (1+)	white-crowned sparrow (1+)		
California towhee (1+)	mule deer (1+)	white-tailed antelope squirrel (1+)		
chipping sparrow (1+)	northern mockingbird (1+)			
common raven (1+)	spotted towhee (1+)			

INCIDENTAL PLANT LIST			
(none)			



GENERAL SURVEY INFORMATION			
Project Name	Campo Wind (Private Land)		
Survey Date	2018-03-29		
Biologist(s)	Erin Bergman, Patricia Schuyler		
Survey Area	Private 6		
Survey Pass	3		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:55:00	74	64	0	4	clear	
End	12:30:00	79	80	0	4	clear	

BUTTERFLY LIST SPECIES (COUNT)					
Acmon blue (5)	funereal duskywing (1)	western tiger swallowtail (1)			
Behr's metalmark (48)	Pacific sara orangetip (27)				
bramble hairstreak (8)	southern blue (2)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
American kestrel (1+)	California scrub-jay (1+)	western kingbird (1+)			
Bewick's wren (1+)	phainopepla (1+)	western meadowlark (1+)			
California quail (1+)	red-tailed hawk (1+)	wrentit (1+)			

INCIDENTAL PLANT LIST				
(none)				



GENERAL SURVEY INFORMATION			
Project Name	Campo Wind (Private Land)		
Survey Date	2018-03-29		
Biologist(s)	Erin Bergman, Patricia Schuyler		
Survey Area	Private 7		
Survey Pass	3		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	12:30:00	80	77	0	3	clear	
End	16:03:00	85	81	0	4	clear	

	BUTTERFLY LIST SPECIES (COUNT)				
Behr's metalmark (37)	brown elfin (1)	Pacific sara orangetip (21)			
bramble hairstreak (9)	desert pearly marble (2)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
oak titmouse (1+) California towhee (1+) turkey vulture (1+)					
acorn woodpecker (1+)	chipping sparrow (1+)	western fence lizard (1+)			
California quail (1+)	common raven (1+)	white-crowned sparrow (1+)			

INCIDENTAL PLANT LIST				
Cordylanthus rigidus				



GENERAL SURVEY INFORMATION			
Project Name	Campo Wind (Private Land)		
Survey Date	2018-03-29		
Biologist(s)	Paul Lemons		
Survey Area	Private 8		
Survey Pass	3		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:30:00	72	67	0	1	clear	
End	12:10:00	75	71	0	5	clear	

	BUTTERFLY LIST SPECIES (COUNT)			
checkered white (1+)	funereal duskywing (1+)	Pacific sara orangetip (1+)		

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
oak titmouse (1+)	common raven (1+)	red-tailed hawk (1+)			
acorn woodpecker (1+)	desert cottontail (1+)	western fence lizard (1+)			
American kestrel (1+)	Eurasian collared-dove (1+)	western kingbird (1+)			
brown-headed cowbird (1+)	European starling (1+)	white-crowned sparrow (1+)			
California ground squirrel (1+)	granite spiny lizard (1+)	wrentit (1+)			
California quail (1+)	greater roadrunner (1+)				
California scrub-jay (1+)	mourning dove (1+)				

INCIDENTAL PLANT LIST				
(none)				



GENERAL SURVEY INFORMATION				
Project Name	Campo Wind (Private Land)			
Survey Date	2018-04-02			
Biologist(s)	Callie Amoaku, Patricia Schuyler			
Survey Area	Private 1			
Survey Pass	4			

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:06:00	58	63	0	1	clear	
2	10:28:00	68	70	0	8	clear	
End	13:14:00	73	71	0	6	clear	

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (64)	brown elfin (2)	Pacific sara orangetip (31)			
blue-gray gnatcatcher (1+)	checkered white (3)	Sulphur sp. (1+)			
bramble hairstreak (10)	desert pearly marble (11)	White sp. (1+)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
bushtit (1+)	California quail (1+)	red-tailed hawk (1+)		
cactus wren (1+)	California scrub-jay (1+)			

INCIDENTAL PLANT LIST				
Cryptantha micrantha				



GENERAL SURVEY INFORMATION				
Project Name	Campo Wind (Private Land)			
Survey Date	2018-04-05			
Biologist(s)	Jeffrey Priest			
Survey Area	Private 2			
Survey Pass	4			

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:00:00	67	65	0	8	clear	
End	16:30:00	75	77	30	12	clear	

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (25)	funereal duskywing (2)	spring white (2)			
bramble hairstreak (7)	orange sulphur (1)	western bluebird (1+)			
brown elfin (4)	Pacific sara orangetip (14)				
desert orangetip (2)	Propertius duskywing (3)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
acorn woodpecker (1+)	common side-blotched lizard (1+)	Merriam's chipmunk (1+)			
black-headed grosbeak (1+)	dark-eyed junco (1+)	mourning dove (1+)			
black-tailed jackrabbit (1+)	desert cottontail (1+)	mule deer (1+)			
Botta's pocket gopher (1+)	granite spiny lizard (1+)	red-tailed hawk (1+)			
California scrub-jay (1+)	greater roadrunner (1+)	rock wren (1+)			
California thrasher (1+)	house finch (1+)	turkey vulture (1+)			
California towhee (1+)	K-rat sp. (burrows and tail-drag sign) (1+)	white-crowned sparrow (1+)			
common raven (1+)	lesser goldfinch (1+)				

	INCIDENTAL PLANT LIST	
(none)		



GENERAL SURVEY INFORMATION		
Project Name	Campo Wind (Private Land)	
Survey Date	2018-04-05	
Biologist(s)	Paul Lemons	
Survey Area	Private 3	
Survey Pass	4	

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:00:00	67	65	0	4		
	13:15:00	80	82	20	10		
End	16:00:00	78	79	30	10		

BUTTERFLY LIST SPECIES (COUNT)		
Behr's metalmark (1+)	checkered white (1+)	Propertius duskywing (1+)
blue-gray gnatcatcher (1+)	desert orangetip (1+)	western bluebird (1+)
brown elfin (1+)	Pacific sara orangetip (1+)	

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)		
black-headed grosbeak (1+)	dark-eyed junco (1+)	red-tailed hawk (1+)
bushtit (1+)	desert cottontail (1+)	rock wren (1+)
California ground squirrel (1+)	greater roadrunner (1+)	western fence lizard (1+)
California scrub-jay (1+)	mourning dove (1+)	white-crowned sparrow (1+)

	INCIDENTAL PLANT LIST	
(none)		



GENERAL SURVEY INFORMATION		
Project Name	Campo Wind (Private Land)	
Survey Date	2018-04-05	
Biologist(s)	Tricia Wotipka	
Survey Area	Private 4	
Survey Pass	4	

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:30:00	68	0	0	3		
End	16:30:00	80	0	20	5		

BUTTERFLY LIST SPECIES (COUNT)		
Behr's metalmark (1+)	funereal duskywing (1+)	
bramble hairstreak (1+)	Pacific sara orangetip (1+)	

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)			
bushtit (1+)	common side-blotched lizard (1+)	Merriam's chipmunk (1+)	
California quail (1+)	dark-eyed junco (1+)	white-crowned sparrow (1+)	
California scrub-jay (1+)	granite spiny lizard (1+)	wrentit (1+)	
California thrasher (1+)	greater roadrunner (1+)		
common raven (1+)	house finch (1+)		

	INCIDENTAL PLANT LIST	
(none)		



GENERAL SURVEY INFORMATION		
Project Name	Campo Wind (Private Land)	
Survey Date	2018-04-03	
Biologist(s)	Anita Hayworth	
Survey Area	Private 5	
Survey Pass	4	

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:40:00	61	63	20	5		
End	16:20:00	74	76	20	8		

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (1+)	funereal duskywing (1+)	western bluebird (1+)			
bramble hairstreak (1+)	Pacific sara orangetip (1+)				
desert pearly marble (1+)	spring white (1+)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
black-chinned sparrow (1+)	California towhee (1+)	phainopepla (1+)			
Blainville's horned lizard (1+)	common raven (1+)	red-tailed hawk (1+)			
Brewer's sparrow (1+)	dark-eyed junco (1+)	rock wren (1+)			
oak titmouse (1+)	desert cottontail (1+)	Scott's oriole (1+)			
acorn woodpecker (1+)	European starling (1+)	Townsend's warbler (1+)			
Bewick's wren (1+)	greater roadrunner (1+)	warbling vireo (1+)			
black-throated sparrow (1+)	house finch (1+)	western fence lizard (1+)			
bushtit (1+)	lesser goldfinch (1+)	western kingbird (1+)			
California ground squirrel (1+)	mourning dove (1+)	western meadowlark (1+)			
California quail (1+)	northern flicker (1+)	white-crowned sparrow (1+)			
California scrub-jay (1+)	orange-crowned warbler (1+)	wrentit (1+)			
California thrasher (1+)	Pacific-slope flycatcher (1+)	yellow-rumped warbler (1+)			

INCIDENTAL PLANT LIST					
(none)					



GENERAL SURVEY INFORMATION					
Project Name	Campo Wind (Private Land)				
Survey Date	2018-04-02				
Biologist(s)	Callie Amoaku, Patricia Schuyler				
Survey Area	Private 6				
Survey Pass	4				

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	13:31:00	67	69	0	8	clear	
End	16:04:00	70	72	0	16	clear	

BUTTERFLY LIST SPECIES (COUNT)					
Acmon blue (4)	bramble hairstreak (8)	desert pearly marble (3)			
Behr's metalmark (28)	brown elfin (2)	Pacific sara orangetip (6)			
blue-gray gnatcatcher (1+)	checkered white (1)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
bushtit (1+) lesser goldfinch (1+) spotted towhee (1+)					
California scrub-jay (1+)	northern flicker (1+)	western meadowlark (1+)			
common raven (1+)	Nuttall's woodpecker (1+)				

INCIDENTAL PLANT LIST				
Ericameria sp.	Cryptantha micrantha			



GENERAL SURVEY INFORMATION				
Project Name	Campo Wind (Private Land)			
Survey Date	2018-04-06			
Biologist(s)	Jeffrey Priest			
Survey Area	Private 6			
Survey Pass	4			

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:15:00	64	62	30	7	patchy	
End	11:15:00	74	74	40	7	patchy	

BUTTERFLY LIST SPECIES (COUNT)					
Acmon blue (3)	brown elfin (2)	Pacific sara orangetip (2)			
Behr's metalmark (22)	checkered white (9)	Propertius duskywing (1)			
bramble hairstreak (2)	desert orangetip (1)	spring white (1)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
acorn woodpecker (1+)	common side-blotched lizard (1+)	Neotoma sp. (midden) (1+)		
American crow (1+)	coyote (1+)	northern flicker (1+)		
American kestrel (1+)	dark-eyed junco (1+)	red-tailed hawk (1+)		
black-tailed jackrabbit (1+)	granite spiny lizard (1+)	turkey vulture (1+)		
Botta's pocket gopher (1+)	lesser goldfinch (1+)	western kingbird (1+)		
California quail (1+)	Merriam's chipmunk (1+)	western meadowlark (1+)		
California scrub-jay (1+)	mourning dove (1+)	white-crowned sparrow (1+)		
common raven (1+)	mule deer (1+)			

INCIDENTAL PLANT LIST				
(none)				



GENERAL SURVEY INFORMATION		
Project Name Campo Wind (Private Land)		
Survey Date	Survey Date 2018-04-04	
Biologist(s)	Patricia Schuyler	
Survey Area	Private 7	
Survey Pass	4	

SURVEY CONDITIONS							
Status Time Air Ground Cover (%) Wind (mph) Sky Notes							
Start	08:31:00	66	62	20	2	patchy	
End	15:28:00	79	84	20	5	patchy	

BUTTERFLY LIST SPECIES (COUNT)			
Acmon blue (1)	bramble hairstreak (2)	Pacific sara orangetip (9)	
Behr's metalmark (56)	California dogface (1)		
Blue sp (2)	desert pearly marble (15)		

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
San Diego black-tailed jackrabbit (1+) European starling (1+) red-tailed hawk (1+)				
California scrub-jay (1+)	mourning dove (1+)	western kingbird (1+)		
common raven (1+)	mule deer (1+)	western rattlesnake (1+)		

INCIDENTAL PLANT LIST				
(none)				



GENERAL SURVEY INFORMATION		
Project Name Campo Wind (Private Land)		
Survey Date	te 2018-04-06	
Biologist(s)	Jeffrey Priest	
Survey Area	Private 8	
Survey Pass	4	

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	11:30:00	74	75	40	12	patchy	
End	15:00:00	78	80	70	14		

	BUTTERFLY LIST SPECIES (COUNT)		
Behr's metalmark (11)	checkered white (2)	Pacific sara orangetip (2)	
bramble hairstreak (2)	funereal duskywing (1)	Propertius duskywing (2)	

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
American crow (1+)	common side-blotched lizard (1+)	red-tailed hawk (1+)		
Botta's pocket gopher (1+)	desert cottontail (1+)	spotted towhee (1+)		
California quail (1+)	European starling (1+)	turkey vulture (1+)		
California scrub-jay (1+)	lesser goldfinch (1+)	white-crowned sparrow (1+)		
California towhee (1+)	fornia towhee (1+) mourning dove (1+)			
common raven (1+)	northern mockingbird (1+)			

INCIDENTAL PLANT LIST			
(none)			



GENERAL SURVEY INFORMATION			
Project Name	Campo Wind (Private Land)		
Survey Date	2018-04-14		
Biologist(s)	Callie Amoaku, Erin Bergman		
Survey Area	Private 1		
Survey Pass	5		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:09:00	69	70	0	3	clear	
End	11:10:00	71	72	0	4	clear	Temp check
End	13:18:00	72	74	0	3	clear	

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (64)	bramble hairstreak (1)	Pacific sara orangetip (24)			
blue-gray gnatcatcher (1+)	desert pearly marble (7)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)						
California quail (1+) chipping sparrow (1+) white-crowned sparrow (1+)						
California scrub-jay (1+) phainopepla (1+) white-tailed antelope squirrel (1+)						

INCIDENTAL PLANT LIST					
Ceanothus leucodermis	Ericameria linearifolia	Oenothera californica			
Ceanothus perplexans	Garrya veatchii	Rhus aromatica			
Chenopodium californicum	Leptosiphon lemmonii				
Cryptantha micrantha	Lupinus concinnus				



GENERAL SURVEY INFORMATION			
Project Name	Campo Wind (Private Land)		
Survey Date	2018-04-09		
Biologist(s)	Paul Lemons		
Survey Area	Private 2		
Survey Pass	5		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	10:00:00	76	75	0	4		
	12:15:00	83	79	10	12		
End	14:40:00	85	82	30	12		

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (1+)	checkered white (1+)	western bluebird (1+)			
bramble hairstreak (1+)	desert orangetip (1+)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
California ground squirrel (1+)	common raven (1+)	greater roadrunner (1+)			
California quail (1+)	common side-blotched lizard (1+)	white-crowned sparrow (1+)			
California scrub-jay (1+)	granite spiny lizard (1+)	wrentit (1+)			

INCIDENTAL PLANT LIST				
(none)				



GENERAL SURVEY INFORMATION			
Project Name	Campo Wind (Private Land)		
Survey Date	2018-04-10		
Biologist(s)	Paul Lemons		
Survey Area	Private 2		
Survey Pass	5		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	13:15:00	91	88	10	8		
End	17:00:00	89	87	10	7		gusts to 12mph

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (1+)	desert orangetip (1+)	Propertius duskywing (1+)			
bramble hairstreak (1+)	funereal duskywing (1+)	western bluebird (1+)			
checkered white (1+)	Pacific sara orangetip (1+)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
Bewick's wren (1+)	California scrub-jay (1+)	rock wren (1+)			
Botta's pocket gopher (1+)	common raven (1+)	white-crowned sparrow (1+)			
bushtit (1+)	common side-blotched lizard (1+)	wrentit (1+)			
California quail (1+)	phainopepla (1+)				

INCIDENTAL PLANT LIST				
(none)				

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GENERAL SURVEY INFORMATION			
Project Name	Campo Wind (Private Land)		
Survey Date	2018-04-09		
Biologist(s)	Erin Bergman, Patricia Schuyler		
Survey Area	Private 3		
Survey Pass	5		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:53:00	79	77	0	4	clear	
End	13:24:00	83	84	0	5	clear	

	BUTTERFLY LIST SPECIES (COUNT)				
Behr's metalmark (83)	brown elfin (2)	Pacific sara orangetip (14)			
bramble hairstreak (1)	desert pearly marble (6)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
California quail (1+)	chipping sparrow (1+)	white-crowned sparrow (1+)		
California scrub-jay (1+)	common raven (1+)			

INCIDENTAL PLANT LIST			
Ceanothus perplexans	Ericameria linearifolia		
Cryptantha micrantha	Lasthenia gracilis		



GENERAL SURVEY INFORMATION			
Project Name	Campo Wind (Private Land)		
Survey Date	2018-04-09		
Biologist(s)	Brock Ortega		
Survey Area	Private 4		
Survey Pass	5		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:05:00	70	69	0	5	clear	
End	16:10:00	83	82	0	3	clear	

BUTTERFLY LIST SPECIES (COUNT)					
San Diegan tiger whiptail (1+)	brown elfin (3)	western bluebird (1+)			
Acmon blue (20)	desert pearly marble (7)	western tiger swallowtail (3)			
Behr's metalmark (37)	Pacific sara orangetip (9)	White sp. (1+)			
Blue sp. (1+)	queen (1)				
bramble hairstreak (1)	spring white (3)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
Brewer's sparrow (1+)	Cassin's kingbird (1+)	lesser goldfinch (1+)			
oak titmouse (1+)	chipping sparrow (1+)	mourning dove (1+)			
San Diego black-tailed jackrabbit (1+)	common side-blotched lizard (1+)	mule deer (1+)			
Anna's hummingbird (1+)	coyote (1+)	northern flicker (1+)			
ash-throated flycatcher (1+)	dark-eyed junco (1+)	orange-crowned warbler (1+)			
Bewick's wren (1+)	desert cottontail (1+)	red-tailed hawk (1+)			
black-throated sparrow (1+)	Erynnis sp. (1+)	rock wren (1+)			
bobcat (1+)	Eurasian collared-dove (1+)	Say's phoebe (1+)			
bushtit (1+)	European starling (1+)	spotted towhee (1+)			
California ground squirrel (1+)	gophersnake (1+)	turkey vulture (1+)			
California quail (1+)	greater roadrunner (1+)	western fence lizard (1+)			
California scrub-jay (1+)	horned lark (1+)	white-tailed antelope squirrel (1+)			



INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
California towhee (1+)	house finch (1+)	Wilson's warbler (1+)		

INCIDENTAL PLANT LIST				
(none)				



GENERAL SURVEY INFORMATION		
Project Name Campo Wind (Private Land)		
Survey Date	2018-04-09	
Biologist(s)	Erin Bergman, Patricia Schuyler	
Survey Area	Private 5	
Survey Pass	5	

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	13:30:00	86	80	0	5	clear	
End	16:30:00	78	79	50	5	clear	

	BUTTERFLY LIST SPECIES (COUNT)				
Behr's metalmark (32)	funereal duskywing (1) spring white (4)				
blue-gray gnatcatcher (1+)	Pacific sara orangetip (21)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
Blainville's horned lizard (1+) California scrub-jay (1+) western meadowlark (1+)				
oak titmouse (1+)	Cassin's kingbird (1+)	white-crowned sparrow (1+)		
Bewick's wren (1+)	chipping sparrow (1)			
bushtit (1+)	northern mockingbird (1+)			

INCIDENTAL PLANT LIST						
Boechera californica Lasthenia gracilis Lomatium dasycarpum						
Ceanothus perplexans	Layia platyglossa					
Cryptantha micrantha						



GENERAL SURVEY INFORMATION		
Project Name Campo Wind (Private Land)		
Survey Date	2018-04-10	
Biologist(s)	Erin Bergman, Patricia Schuyler	
Survey Area	Private 5	
Survey Pass	5	

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:48:00	81	82	20	2	clear	
End	10:52:00	87	84	10	2	clear	

	BUTTERFLY LIST SPECIES (COUNT)		
Behr's metalmark (2)	desert pearly marble (3)	Pacific sara orangetip (15)	

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
California scrub-jay (1+) western meadowlark (1+)					
chipping sparrow (1+) white-crowned sparrow (1+)					

INCIDENTAL PLANT LIST				
Amsinckia intermedia Lasthenia gracilis Rhus aromatica				
Ceanothus perplexans	Leptosyne californica			



GENERAL SURVEY INFORMATION			
Project Name	Campo Wind (Private Land)		
Survey Date	2018-04-10		
Biologist(s)	Erin Bergman, Patricia Schuyler		
Survey Area	Private 6		
Survey Pass	5		

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	10:47:00	87	82	10	2	clear	
End	15:00:00	90	90	20	4	clear	I continued survey area 6 and Tish started area 7. I got done at 3:00 and went to join her.

	BUTTERFLY LIST SPECIES (COUNT)				
Acmon blue (2)	bramble hairstreak (1)	Pacific sara orangetip (34)			
Behr's metalmark (122)	desert pearly marble (19)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)						
Blainville's horned lizard (1+) California scrub-jay (1+) white-crowned sparrow (1+)						
barn owl (1+)	California towhee (1+)	wild turkey (1+)				
bushtit (1+)	greater roadrunner (1+)	wrentit (1+)				
California quail (1+)	mourning dove (1+)					

INCIDENTAL PLANT LIST					
Acmispon heermannii	Erodium cicutarium	Pectocarya penicillata			
Amsinckia intermedia	Lasthenia gracilis	Plagiobothrys arizonicus			
Ceanothus perplexans	Lomatium dasycarpum				
Cryptantha micrantha	Lupinus concinnus				



GENERAL SURVEY INFORMATION				
Project Name	Campo Wind (Private Land)			
Survey Date	2018-04-10			
Biologist(s)	Erin Bergman, Patricia Schuyler			
Survey Area	Private 7			
Survey Pass	5			

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	14:37:00	90	90	10	3	clear	
End	16:09:00	94	92		4	clear	

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (35)	Pacific sara orangetip (12)				
desert pearly marble (8)	Sulphur sp (1)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
mule deer (1+)				

INCIDENTAL PLANT LIST							
Ceanothus leucodermis	Chenopodium californicum	Lasthenia gracilis					
Ceanothus perplexans	Ceanothus perplexans Ericameria pinifolia Lomatium dasycarpum						



GENERAL SURVEY INFORMATION				
Project Name	Campo Wind (Private Land)			
Survey Date	2018-04-11			
Biologist(s)	Erin Bergman			
Survey Area	Private 7, Private 8			
Survey Pass	5			

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:56:00	82	83.6	10	3	clear	Beautiful day!
End	16:09:00	79	80	0	3	clear	

BUTTERFLY LIST SPECIES (COUNT)		
Behr's metalmark (79)	desert pearly marble (7)	spring white (2)
bramble hairstreak (3)	Pacific sara orangetip (14)	

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)			
oak titmouse (1+)	California scrub-jay (1+)	phainopepla (1+)	
acorn woodpecker (1+)	California towhee (1+)	red-tailed hawk (1+)	
bushtit (1+)	common raven (1+)	turkey vulture (1+)	

INCIDENTAL PLANT LIST				
Ericameria linearifolia	Leptosyne californica	Oenothera californica ssp. avita		
Lasthenia gracilis	Lupinus concinnus	Plagiobothrys arizonicus		



GENERAL SURVEY INFORMATION		
Project Name	Campo Wind (Private Land)	
Survey Date	2018-04-25	
Biologist(s)	Jeffrey Priest	
Survey Area	Private 1	
Survey Pass	6	

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:30:00	70	70	0	5		
	12:15:00	80	84	0	14		Winds 3-8 with gusts 8-14
End	15:30:00	82	85	30	12		

BUTTERFLY LIST SPECIES (COUNT)		
Behr's metalmark (17)	Pacific sara orangetip (5)	Propertius duskywing (3)
bramble hairstreak (1)	pale swallowtail (1)	spring white (2)

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)			
rufous hummingbird (1+)	California scrub-jay (1+)	Merriam's chipmunk (1+)	
American crow (1+)	California thrasher (1+)	mourning dove (1+)	
Anna's hummingbird (1+)	California towhee (1+)	mule deer (1+)	
ash-throated flycatcher (1+)	cliff swallow (1+)	northern flicker (1+)	
Bewick's wren (1+)	common raven (1+)	northern mockingbird (1+)	
black-tailed jackrabbit (1+)	common side-blotched lizard (1+)	red-tailed hawk (1+)	
Botta's pocket gopher (1+)	coyote (1+)	turkey vulture (1+)	
brush rabbit (1+)	granite spiny lizard (1+)	white-crowned sparrow (1+)	
bushtit (1+)	house finch (1+)		
California quail (1+)	lesser goldfinch (1+)		

INCIDENTAL PLANT LIST				
(none)				



GENERAL SURVEY INFORMATION				
Project Name	Campo Wind (Private Land)			
Survey Date	2018-04-14			
Biologist(s)	Jeffrey Priest			
Survey Area	Private 2			
Survey Pass	6			

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:30:00	62	62	0	10	clear	
End	16:30:00	74	76	0	8		

BUTTERFLY LIST SPECIES (COUNT)					
Acmon blue (1)	brown elfin (8)	Propertius duskywing (7)			
Behr's metalmark (47)	desert orangetip (3)	spring white (13)			
bramble hairstreak (2)	Pacific sara orangetip (21)	western bluebird (1+)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
American crow (1+)	common raven (1+)	mourning dove (1+)			
American kestrel (1+)	common side-blotched lizard (1+)	mule deer (1+)			
brush rabbit (1+)	coyote (1+)	phainopepla (1+)			
bushtit (1+)	dark-eyed junco (1+)	red-tailed hawk (1+)			
California ground squirrel (1+)	granite spiny lizard (1+)	spotted towhee (1+)			
California quail (1+)	greater roadrunner (1+)	turkey vulture (1+)			
California scrub-jay (1+)	house finch (1+)	western fence lizard (1+)			
California thrasher (1+)	lesser goldfinch (1+)	western kingbird (1+)			
California towhee (1+)	Merriam's chipmunk (1+)	white-crowned sparrow (1+)			

INCIDENTAL PLANT LIST					
(none)					

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GENERAL SURVEY INFORMATION			
Project Name	Campo Wind (Private Land)		
Survey Date	2018-04-15		
Biologist(s)	Jeffrey Priest		
Survey Area	Private 3		
Survey Pass	6		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:30:00	64	62	10	1		
End	15:30:00	77	80	90	12		

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (41)	desert orangetip (5)	spring white (14)			
blue-gray gnatcatcher (1+)	Pacific sara orangetip (8)				
brown elfin (1+)	Propertius duskywing (14)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
Blainville's horned lizard (1+)	California quail (1+)	greater roadrunner (1+)			
American crow (1+)	California scrub-jay (1+)	mourning dove (1+)			
Anna's hummingbird (1+)	California towhee (1+)	red-tailed hawk (1+)			
bobcat (1+)	common raven (1+)	spotted towhee (1+)			
Botta's pocket gopher (1+)	common side-blotched lizard (1+)	turkey vulture (1+)			
brush rabbit (1+)	coyote (1+)	western meadowlark (1+)			
bushtit (1+)	gophersnake (1+)	white-crowned sparrow (1+)			
California ground squirrel (1+)	granite spiny lizard (1+)				

INCIDENTAL PLANT LIST					
(none)					



GENERAL SURVEY INFORMATION			
Project Name	Campo Wind (Private Land)		
Survey Date	2018-04-20		
Biologist(s)	Paul Lemons		
Survey Area	Private 4		
Survey Pass	6		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	10:00:00	71	69	0	4		
End	16:45:00	75	73	0	3	clear	4-8 mph gusts

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (1+)	Pacific sara orangetip (1+)				
checkered white (1+)	Propertius duskywing (1+)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
Bewick's wren (1+)	common raven (1+)	rock wren (1+)			
black-throated sparrow (1+)	common side-blotched lizard (1+)	spotted towhee (1+)			
bushtit (1+)	coyote (1+)	striped racer (1+)			
California ground squirrel (1+)	desert cottontail (1+)	white-crowned sparrow (1+)			
California quail (1+)	granite spiny lizard (1+)	wrentit (1+)			
California scrub-jay (1+)	greater roadrunner (1+)	zebra-tailed lizard (1+)			
California towhee (1+)	red-tailed hawk (1+)				

INCIDENTAL PLANT LIST				
(none)				



GENERAL SURVEY INFORMATION			
Project Name	Campo Wind (Private Land)		
Survey Date	2018-04-20		
Biologist(s)	Erin Bergman, Patricia Schuyler		
Survey Area	Private 5		
Survey Pass	6		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:28:00	67	0	0	1		
End	13:21:00	72	74	0	3	clear	

BUTTERFLY LIST SPECIES (COUNT)					
Acmon blue (8)	brown elfin (1)	southern blue (1)			
Behr's metalmark (57)	desert pearly marble (5)	spring white (2)			
blue-gray gnatcatcher (1+)	Pacific sara orangetip (19)	White species (10)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
Bewick's wren (1+)	chipping sparrow (1+)	phainopepla (1+)			
California scrub-jay (1+)	common raven (1+)	red-tailed hawk (1+)			
California towhee (1+)	mourning dove (1+)	white-crowned sparrow (1+)			
Cassin's kingbird (1+)	northern mockingbird (1+)	wrentit (1+)			

INCIDENTAL PLANT LIST				
Anisocoma acaulis	Eriophyllum wallacei	Leptosiphon lemmonii		
Ceanothus perplexans	Euphorbia albomarginata	Leptosiphon parviflorus		
Cryptantha micrantha	Geraea viscida	Linanthus bellus		
Descurainia pinnata	Lasthenia gracilis	Lomatium dasycarpum		
Ericameria linearifolia	Layia glandulosa	Lupinus concinnus		



GENERAL SURVEY INFORMATION			
Project Name Campo Wind (Private Land)			
Survey Date	2018-04-18		
Biologist(s)	Paul Lemons		
Survey Area	Private 6		
Survey Pass	6		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:20:00	61	60	0	2	clear	
End	16:05:00	65	64	0	8		9-15 mph gusts

BUTTERFLY LIST SPECIES (COUNT)				
Acmon blue (1+)	checkered white (1+)	Propertius duskywing (1+)		
Behr's metalmark (1+)	funereal duskywing (1+)	western tiger swallowtail (1+)		
bramble hairstreak (1+)	Pacific sara orangetip (1+)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
acorn woodpecker (1+)	California scrub-jay (1+)	mourning dove (1+)			
American kestrel (1+)	common raven (1+)	red-tailed hawk (1+)			
brush rabbit (1+)	common side-blotched lizard (1+)	Steller's jay (1+)			
Bullock's oriole (1+)	European starling (1+)	turkey vulture (1+)			
California ground squirrel (1+)	greater roadrunner (1+)	western meadowlark (1+)			
California quail (1+)	Merriam's chipmunk (1+)	white-crowned sparrow (1+)			

	INCIDENTAL PLANT LIST	
(none)		



GENERAL SURVEY INFORMATION		
Project Name	Campo Wind (Private Land)	
Survey Date	2018-04-17	
Biologist(s)	Erin Bergman	
Survey Area	Private 7, Private 8	
Survey Pass	6	

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:58:00	67	67	0	3	clear	
Temp check	14:26:00	84	85	0	2	clear	
End	17:03:00	68	69	0	2	clear	

	BUTTERFLY LIST SPECIES (COUNT)	
Behr's metalmark (58)	Pacific sara orangetip (11)	White species (8)
bramble hairstreak (1+)	southern blue (1+)	
desert pearly marble (7)	spring white (4)	

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)			
oak titmouse (1+)	Cassin's kingbird (1+)	red-tailed hawk (1)	
acorn woodpecker (1+)	chipping sparrow (1+)	turkey vulture (1+)	
bushtit (1+)	common raven (1+)	white-crowned sparrow (1+)	
California scrub-jay (1+)	greater roadrunner (1+)		
California towhee (1+)	phainopepla (1+)		

INCIDENTAL PLANT LIST		
Ceanothus leucodermis	Ericameria linearifolia	Layia glandulosa
Ceanothus perplexans	Erodium cicutarium	Linanthus bellus
Chenopodium californicum	Lasthenia gracilis	



GENERAL SURVEY INFORMATION		
Project Name	Campo Wind (Private Land)	
Survey Date	2018-04-29	
Biologist(s)	Jeffrey Priest	
Survey Area	Private 1	
Survey Pass	7	

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:30:00	60	60	10	10		Winds highly variable: 3-10 mph with gusts 10-15 mph.
Mid day	11:11:00	66	66	0	14		Winds highly variable. 3-7 mph with gusts 7-14 mph.
End	15:30:00	68	70	0	10		Winds highly variable: 5-10 mph with gusts 10-18 mph.

	BUTTERFLY LIST SPECIES (COUNT)		
Behr's metalmark (12)	pale swallowtail (1)	Propertius duskywing (2)	

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)			
American crow (1+)	California scrub-jay (1+)	mourning dove (1+)	
American kestrel (1+)	California towhee (1+)	mule deer (1+)	
Bewick's wren (1+)	common raven (1+)	northern mockingbird (1+)	
black-throated sparrow (1+)	common side-blotched lizard (1+)	red-tailed hawk (1+)	
Botta's pocket gopher (1+)	coyote (1+)	spotted towhee (1+)	
brush rabbit (1+)	gophersnake (1+)	turkey vulture (1+)	
bushtit (1+)	granite spiny lizard (1+)		

INCIDENTAL PLANT LIST		
(none)		



GENERAL SURVEY INFORMATION		
Project Name	Campo Wind (Private Land)	
Survey Date	2018-04-28	
Biologist(s)	Jeffrey Priest	
Survey Area	Private 2	
Survey Pass	7	

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:30:00	64	66	0	1		
Mid-day conditions	12:47:00	78	80	0	14		Rising winds: 6-14 mph with gusts 15-18 mph.
End	16:30:00	75	78	0	14		

	BUTTERFLY LIST SPECIES (COUNT)				
Behr's metalmark (9)	funereal duskywing (1) Propertius duskywing (1)				
bramble hairstreak (1)	Pacific sara orangetip (2)	western bluebird (1+)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)						
oak titmouse (1+)	California towhee (1+)	house wren (1+)				
Anna's hummingbird (1+)	cliff swallow (1+)	lesser goldfinch (1+)				
ash-throated flycatcher (1+)	common raven (1+)	Merriam's chipmunk (1+)				
Botta's pocket gopher (1+)	common side-blotched lizard (1+)	northern mockingbird (1+)				
brush rabbit (1+)	coyote (1+)	red-tailed hawk (1+)				
bushtit (1+)	dark-eyed junco (1+)	turkey vulture (1+)				
California ground squirrel (1+)	granite spiny lizard (1+)	western rattlesnake (1+)				
California quail (1+)	greater roadrunner (1+)					
California scrub-jay (1+)	house finch (1+)					

INCIDENTAL PLANT LIST					
(none)					



GENERAL SURVEY INFORMATION					
Project Name	e Campo Wind (Private Land)				
Survey Date	2018-04-24				
Biologist(s)	Callie Amoaku, Patricia Schuyler				
Survey Area	Private 3				
Survey Pass	7				

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:09:00	82	78	30	1	clear	
End	12:44:00	86	88	20	1	clear	

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (49)	Pacific sara orangetip (1)				
desert pearly marble (4)	pale swallowtail (3)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
Blainville's horned lizard (1+) California scrub-jay (1+) granite spiny lizard (1+)					
black-throated sparrow (1+) common side-blotched lizard (1+) white-tailed antelope squ					

INCIDENTAL PLANT LIST				
(none)				



GENERAL SURVEY INFORMATION					
Project Name	Campo Wind (Private Land)				
Survey Date	2018-04-25				
Biologist(s)	Erin Bergman				
Survey Area	Private 4				
Survey Pass	7				

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	12:00:00	74	78	0	1	clear	
End	15:36:00	75	78	10	1	clear	

BUTTERFLY LIST SPECIES (COUNT)					
Acmon blue (3)	desert pearly marble (2)	western bluebird (1)			
Behr's metalmark (22)	Gabb's checkerspot (2)	White species (3)			
blue-gray gnatcatcher (1+)	Pacific sara orangetip (10)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)			
California scrub-jay (1+)	chipping sparrow (1+)	common raven (1+)	

INCIDENTAL PLANT LIST				
Geraea viscida	Geraea viscida Linanthus bellus			



GENERAL SURVEY INFORMATION		
Project Name Campo Wind (Private Land)		
Survey Date	2018-04-25	
Biologist(s)	Callie Amoaku	
Survey Area	Private 4	
Survey Pass	7	

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:44:00	79	78	0	5	clear	
2	12:18:00	82	83	0	9	clear	

BUTTERFLY LIST SPECIES (COUNT)				
Behr's metalmark (32)	desert pearly marble (1)	Propertius duskywing (3)		
blue-gray gnatcatcher (1+)	funereal duskywing (2)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
Blainville's horned lizard (1+) common side-blotched lizard (1+) Townsend's warbler (1+)				
Cooper's hawk (1+)	granite spiny lizard (1+)	western kingbird (1+)		
ash-throated flycatcher (1+)	great horned owl (1+)	wrentit (1+)		
California scrub-jay (1+) red-tailed hawk (1+)				

INCIDENTAL PLANT LIST					
Ceanothus leucodermis	Ericameria linearifolia	Lupinus concinnus			
Ceanothus perplexans	Eriodictyon crassifolium	Nama demissa			
Chaenactis glabriuscula	Erodium cicutarium	Oenothera californica			
Cryptantha micrantha	Lasthenia gracilis	Salvia columbariae			
Dichelostemma capitatum	Linanthus bellus				



GENERAL SURVEY INFORMATION		
Project Name Campo Wind (Private Land)		
Survey Date	2018-04-25	
Biologist(s)	Margie Mulligan	
Survey Area	Private 5	
Survey Pass	7	

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:55:00	75		0	6	clear	
End	15:35:00	76	0	0	8	clear	

	BUTTERFLY LIST SPECIES (COUNT)			
Behr's metalmark (14)	Gabb's checkerspot (1)	Propertius duskywing (2)		
desert pearly marble (4)	pale swallowtail (1)	sleepy duskywing (1)		

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)			
(none)			

INCIDENTAL PLANT LIST				
(none)				



GENERAL SURVEY INFORMATION			
Project Name	Campo Wind (Private Land)		
Survey Date	2018-04-25		
Biologist(s)	Erin Bergman		
Survey Area	Private 5		
Survey Pass	7		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	10:14:00	76	77	0	1	clear	
End	12:00:00	73	77	0	1	clear	

	BUTTERFLY LIST SPECIES (COUNT)				
Behr's metalmark (18)	Pacific sara orangetip (5)	spring white (2)			
desert pearly marble (9)	pale swallowtail (1)	White species (9)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)							
acorn woodpecker (1+) chipping sparrow (1+) western meadowlark (1+)							
California scrub-jay (1)							

INCIDENTAL PLANT LIST					
Ceanothus leucodermis	Euphorbia albomarginata	Lupinus concinnus			
Ceanothus perplexans	Lasthenia gracilis	Pectocarya setosa			
Ericameria linearifolia	Layia glandulosa	Rhus aromatica			
Eriophyllum wallacei	Loeseliastrum schottii	Senecio californicus			



GENERAL SURVEY INFORMATION			
Project Name	Campo Wind (Private Land)		
Survey Date	2018-04-20		
Biologist(s)	Tricia Wotipka		
Survey Area	Private 6		
Survey Pass	7		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:50:00	64	68	10	2	patchy	
End	17:30:00	75	74	0	3	clear	

BUTTERFLY LIST SPECIES (COUNT)					
Acmon blue (1+)	Pacific sara orangetip (1+)	spring white (1+)			
Behr's metalmark (1+)	pale swallowtail (1+)	western bluebird (1+)			
funereal duskywing (1+)	southern blue (1+)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
acorn woodpecker (1+)	common side-blotched lizard (1+)	Merriam's chipmunk (1+)			
ash-throated flycatcher (1+)	desert cottontail (1+)	northern flicker (1+)			
Bullock's oriole (1+)	granite spiny lizard (1+)	rock wren (1+)			
California ground squirrel (1+)	greater roadrunner (1+)	Steller's jay (1+)			
California scrub-jay (1+)	house finch (1+)				
common raven (1+)	lesser goldfinch (1+)				

INCIDENTAL PLANT LIST					
(none)					



GENERAL SURVEY INFORMATION			
Project Name	Campo Wind (Private Land)		
Survey Date	2018-04-20		
Biologist(s)	Erin Bergman, Patricia Schuyler		
Survey Area	Private 7, Private 8		
Survey Pass	7		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	13:24:00	72	74	0	3	clear	
End	16:01:00	74	75	0	3	clear	

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (60)	California patch (1)	Pacific sara orangetip (9)			
blue-gray gnatcatcher (1+)	desert pearly marble (3)	White species (11)			
bramble hairstreak (1)	Lady species (1)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
acorn woodpecker (1) California scrub-jay (1+) red-tailed hawk (1+)					
black-tailed jackrabbit (1+)	chipping sparrow (1+)	turkey vulture (1+)			
California quail (1+)	common raven (1+)	western meadowlark (1+)			

INCIDENTAL PLANT LIST					
Amsinckia intermedia Phlox austromontana					
Chenopodium californicum	Sisymbrium altissimum				



GENERAL SURVEY INFORMATION				
Project Name Campo Wind (Private Land)				
Survey Date	2018-04-22			
Biologist(s)	Erin Bergman			
Survey Area	Private 7, Private 8			
Survey Pass	7			

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:39:00	75	79	0	2	clear	
End	13:44:00	83	85	0	1	clear	

BUTTERFLY LIST SPECIES (COUNT)					
Acmon blue (5)	desert pearly marble (7)	Sulphur species (2)			
Behr's metalmark (44)	Pacific sara orangetip (12)	White species (17)			
blue-gray gnatcatcher (1+)	spring white (2)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
acorn woodpecker (1+)	California towhee (1+)	turkey vulture (1+)			
Bewick's wren (1+)	Cassin's kingbird (1+)	white-crowned sparrow (1+)			
bushtit (1+)	chipping sparrow (1+)	wrentit (1+)			
California scrub-jay (1+)	common raven (1+)				

INCIDENTAL PLANT LIST				
(none)				



GENERAL SURVEY INFORMATION				
Project Name Campo Wind (Private Land)				
Survey Date	2018-05-03			
Biologist(s)	Patricia Schuyler			
Survey Area	Private 1			
Survey Pass	8			

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:37:00	63	62	0	3	clear	
End	15:40:00	74	78	0	5	clear	

	BUTTERFLY LIST SPECIES (COUNT)			
Behr's metalmark (17)	blue-gray gnatcatcher (1+)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
California scrub-jay (1+) mule deer (1+) white-tailed antelope squirrel (1+)					
common raven (1+)					

INCIDENTAL PLANT LIST		
(none)		



GENERAL SURVEY INFORMATION		
Project Name	Campo Wind (Private Land)	
Survey Date	2018-05-04	
Biologist(s)	Callie Amoaku	
Survey Area	Private 2	
Survey Pass	8	

			SURVEY	CONDIT	IONS		
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:34:00	72	81	0	3	clear	
2	10:50:00	79	79	0	3	clear	
End	16:26:00	81	85	0	3	clear	

	BUTTERFLY LIST SPECIES (COUNT)	
Behr's metalmark (10)	pale swallowtail (1)	western tiger swallowtail (1)

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)		
ash-throated flycatcher (1+)	California quail (1+)	phainopepla (1+)
black-throated sparrow (1+)	California scrub-jay (1+)	white-crowned sparrow (1+)
bushtit (1+)	granite spiny lizard (1+)	white-tailed antelope squirrel (1+)
California ground squirrel (1+)	northern flicker (1+)	wrentit (1+)

	INCIDENTAL PLANT LIST	
Ericameria linearifolia	Heliotropium curassavicum	Linanthus bellus
Eriodictyon trichocalyx	Hesperoyucca whipplei	Penstemon centranthifolius



GENERAL SURVEY INFORMATION		
Project Name	Campo Wind (Private Land)	
Survey Date	2018-05-03	
Biologist(s)	Anita Hayworth	
Survey Area	Private 3	
Survey Pass	8	

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	10:05:00	62	64	0	5		
End	17:15:00	21	21.5	0	8		Gusts 10-22

	BUTTERFLY LIST SPECIES (COUNT)	
Behr's metalmark (1+)		

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)			
Brewer's sparrow (1+)	dark-eyed junco (1+)	red-tailed hawk (1+)	
black-throated sparrow (1+)	European starling (1+)	rock wren (1+)	
bushtit (1+)	house finch (1+)	Townsend's warbler (1+)	
California scrub-jay (1+)	mourning dove (1+)	warbling vireo (1+)	
California thrasher (1+)	northern flicker (1+)	Wilson's warbler (1+)	
California towhee (1+)	orange-crowned warbler (1+)		
common raven (1+)	Pacific-slope flycatcher (1+)		

	INCIDENTAL PLANT LIST	
(none)		



GENERAL SURVEY INFORMATION		
Project Name	Campo Wind (Private Land)	
Survey Date	2018-05-04	
Biologist(s)	Tricia Wotipka	
Survey Area	Private 4	
Survey Pass	8	

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:15:00	74	78	0	3	clear	
End	16:15:00	82	84	0	3	clear	

	BUTTERFLY LIST SPECIES (COUNT)				
Acmon blue (1+)	Behr's metalmark (1+)	blue-gray gnatcatcher (1+)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
Blainville's horned lizard (1+)	red-tailed hawk (1+)				
oak titmouse (1+)	common raven (1+)	spotted towhee (1+)			
ash-throated flycatcher (1+)	common side-blotched lizard (1+)	Townsend's warbler (1+)			
brush rabbit (1+)	lesser goldfinch (1+)	western fence lizard (1+)			
bushtit (1+)	mourning dove (1+)	western kingbird (1+)			
California ground squirrel (1+)	mule deer (1+)				

INCIDENTAL PLANT LIST					
(none)					



GENERAL SURVEY INFORMATION				
Project Name	Campo Wind (Private Land)			
Survey Date	2018-05-05			
Biologist(s)	Diana Saucedo, Erik LaCoste			
Survey Area	Private 5, Private 6			
Survey Pass	8			

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:00:00	77	81	0	3	clear	
End	15:35:00	85	91	0	7	clear	

	BUTTERFLY LIST SPECIES (COUNT)				
Acmon blue (4)	funereal duskywing (1)	Propertius duskywing (3)			
Behr's metalmark (22)	Gabb's checkerspot (1)	spring white (1)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
(none)					

INCIDENTAL PLANT LIST					
Pectocarya spp	Eriastrum sapphirinum	Leptosiphon floribundus			
Plagiobotrys	Erodium cicutarium	Leptosiphon lemmonii			
Amsinckia intermedia	Lasthenia gracilis	Salvia columbariae			



GENERAL SURVEY INFORMATION					
Project Name	Campo Wind (Private Land)				
Survey Date	2018-04-24				
Biologist(s)	Callie Amoaku, Patricia Schuyler				
Survey Area	Private 6				
Survey Pass	8				

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	13:02:00	86	88	20	1	clear	
End	17:20:00	83	0	30	2	clear	

	BUTTERFLY LIST SPECIES (COUNT)				
Acmon blue (1)	desert pearly marble (6)	pale swallowtail (1)			
Behr's metalmark (29)	Pacific sara orangetip (2)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
acorn woodpecker (1+)	becker (1+) California scrub-jay (1+) mule deer (1+)			
black-tailed jackrabbit (1+)	common side-blotched lizard (1+)	white-crowned sparrow (1+)		
California ground squirrel (1+)	granite spiny lizard (1+)	white-tailed antelope squirrel (1+)		
California quail (1+)	house finch (1+)	Wilson's warbler (1+)		

INCIDENTAL PLANT LIST				
Amsinckia intermedia	Ericameria linearifolia	Layia glandulosa		
Ceanothus leucodermis	Eriodictyon crassifolium	Linanthus bellus		
Ceanothus perplexans	Eriophyllum wallacei	Lupinus concinnus		
Dichelostemma capitatum	Lasthenia gracilis	Penstemon centranthifolius		



GENERAL SURVEY INFORMATION		
Project Name Campo Wind (Private Land)		
Survey Date	2018-04-27	
Biologist(s)	Tricia Wotipka	
Survey Area	Private 7	
Survey Pass	8	

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:15:00	61	62	0	3	clear	
End	16:00:00	78	74	0	4	clear	

	BUTTERFLY LIST SPECIES (COUNT)	
Behr's metalmark (1+)	pale swallowtail (1+)	
Pacific sara orangetip (1+)	western bluebird (1+)	

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
Lawrence's goldfinch (1+)	California quail (1+)	mourning dove (1+)			
oak titmouse (1+)	California scrub-jay (1+)	northern flicker (1+)			
acorn woodpecker (1+)	common raven (1+)	red-tailed hawk (1+)			
American kestrel (1+)	common side-blotched lizard (1+)	spotted towhee (1+)			
ash-throated flycatcher (1+)	European starling (1+)	western meadowlark (1+)			
black-tailed jackrabbit (1+)	greater roadrunner (1+)	wrentit (1+)			
brush rabbit (1+)	hooded oriole (1+)	yellow-rumped warbler (1+)			
bushtit (1+)	house finch (1+)				
California ground squirrel (1+)	lesser goldfinch (1+)				

INCIDENTAL PLANT LIST				
(none)				



GENERAL SURVEY INFORMATION		
Project Name Campo Wind (Private Land)		
Survey Date	2018-05-07	
Biologist(s)	Jeffrey Priest	
Survey Area	Private 1	
Survey Pass	9	

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:00:00	68	67	0	5		
Mid afternoon conditions.	14:08:00	86	90	0	12		
End	16:00:00	84	86	0	10		

	BUTTERFLY LIST SPECIES (COUNT)		
Acmon blue (1)	blue-gray gnatcatcher (1+)	Lorquin's admiral (2)	
Behr's metalmark (9)	desert pearly marble (1)		

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
San Diego black-tailed jackrabbit (1+)	California scrub-jay (1+)	Merriam's chipmunk (1+)			
acorn woodpecker (1+)	California towhee (1+)	mule deer (1+)			
American crow (1+)	cliff swallow (1+)	northern flicker (1+)			
Anna's hummingbird (1+)	common raven (1+)	phainopepla (1+)			
ash-throated flycatcher (1+)	common side-blotched lizard (1+)	red-tailed hawk (1+)			
Bewick's wren (1+)	coyote (1+)	spotted towhee (1+)			
brush rabbit (1+)	granite spiny lizard (1+)	turkey vulture (1+)			
bushtit (1+)	greater roadrunner (1+)	western kingbird (1+)			
California ground squirrel (1+)	house finch (1+)	white-throated swift (1+)			
California quail (1+)	lesser goldfinch (1+)				

INCIDENTAL PLANT LIST				
(none)				



GENERAL SURVEY INFORMATION			
Project Name	Campo Wind (Private Land)		
Survey Date	2018-05-07		
Biologist(s)	Callie Amoaku, Patricia Schuyler		
Survey Area	Private 2		
Survey Pass	9		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	12:40:00	86	88	0	8	clear	
End	16:46:00	90	93	0	3	clear	

BUTTERFLY LIST SPECIES (COUNT)				
Acmon blue (2)	Behr's metalmark (5)	California sister (1)		

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
Bewick's wren (1+)	common raven (1+)	turkey vulture (1+)			
California towhee (1+)	gophersnake (1+)	white-tailed antelope squirrel (1+)			

INCIDENTAL PLANT LIST				
(none)				



GENERAL SURVEY INFORMATION			
Project Name	Campo Wind (Private Land)		
Survey Date	2018-05-07		
Biologist(s)	Callie Amoaku, Patricia Schuyler		
Survey Area	Private 3		
Survey Pass	9		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:35:00	76	70	10	3	clear	
End	12:35:00	86	88	0	5	clear	

	BUTTERFLY LIST SPECIES (COUNT)			
Behr's metalmark (10)	California sister (1)	funereal duskywing (1)		

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
San Diego black-tailed jackrabbit (1+)	California scrub-jay (1+)			
bushtit (1+)	sagebrush sparrow (1+)			

INCIDENTAL PLANT LIST					
(none)					



GENERAL SURVEY INFORMATION			
Project Name	Campo Wind (Private Land)		
Survey Date	2018-05-08		
Biologist(s)	Callie Amoaku		
Survey Area	Private 4		
Survey Pass	9		

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:59:00	84	90	10	1	clear	
2	12:16:00	90	92	10	2	clear	
End	15:39:00	91	93	0	2	clear	

BUTTERFLY LIST SPECIES (COUNT)					
San Diegan tiger whiptail (1+)	Diegan tiger whiptail (1+) Behr's metalmark (2) gray hairstreak (2)				
Acmon blue (3)	California sister (1)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
ash-throated flycatcher (1+)	common raven (1+)	red-tailed hawk (1+)			
bushtit (1+)	common side-blotched lizard (1+)	spotted towhee (1+)			
California quail (1+)	hermit warbler (1+)				

INCIDENTAL PLANT LIST				
(none)				



GENERAL SURVEY INFORMATION			
Project Name	Campo Wind (Private Land)		
Survey Date	2018-05-09		
Biologist(s)	Erik LaCoste		
Survey Area	Private 5		
Survey Pass	9		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:00:00	78	78	0	3	clear	
End	15:15:00	90	95	10	8	clear	

	BUTTERFLY LIST SPECIES (COUNT)	
Acmon blue (2)	California sister (2)	
Behr's metalmark (4)	funereal duskywing (1)	

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
(none)				

INCIDENTAL PLANT LIST				
(none)				



GENERAL SURVEY INFORMATION				
Project Name	Campo Wind (Private Land)			
Survey Date	2018-05-07			
Biologist(s)	Anita Hayworth			
Survey Area	Private 6			
Survey Pass	9			

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	10:28:00	79	83	0	6		
End	18:42:00	78	76	0	8		Gusts to 13

	BUTTERFLY LIST SPECIES (COUNT)	
Behr's metalmark (1+)	southern blue (1+)	
fiery skipper (1+)	western bluebird (1+)	

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
oak titmouse (1+)	common raven (1+)	mule deer (1+)			
acorn woodpecker (1+)	dark-eyed junco (1+)	northern flicker (1+)			
ash-throated flycatcher (1+)	desert cottontail (1+)	Nuttall's woodpecker (1+)			
Bewick's wren (1+)	Eurasian collared-dove (1+)	red-tailed hawk (1+)			
Bullock's oriole (1+)	European starling (1+)	rock wren (1+)			
California ground squirrel (1+)	hermit warbler (1+)	Townsend's warbler (1+)			
California quail (1+)	hooded oriole (1+)	turkey vulture (1+)			
California scrub-jay (1+)	house finch (1+)	western tanager (1+)			
California thrasher (1+)	lesser goldfinch (1+)	western wood-pewee (1+)			
Cassin's kingbird (1+)	mourning dove (1+)	Wilson's warbler (1+)			

	INCIDENTAL PLANT LIST	
(none)		



GENERAL SURVEY INFORMATION		
Project Name	Campo Wind (Private Land)	
Survey Date	2018-05-07	
Biologist(s)	Erin Bergman	
Survey Area	Private 7, Private 8	
Survey Pass	9	

			SURVE	CONDIT	IONS		
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:04:00	74	76	20	1	clear	
End	16:59:00	73	76	0	1	clear	

BUTTERFLY LIST SPECIES (COUNT)		
Acmon blue (5)	desert pearly marble (2)	White species (5)
Behr's metalmark (16)	pale swallowtail (1)	
bramble hairstreak (1)	southern blue (2)	

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)		
acorn woodpecker (1+)	chipping sparrow (1+)	phainopepla (1+)
black phoebe (1+)	common raven (1+)	red-tailed hawk (1+)
bushtit (1+)	house wren (1+)	turkey vulture (1+)
California scrub-jay (1+)	mourning dove (1+)	wrentit (1+)

	INCIDENTAL PLANT LIST	
(none)		



GENERAL SURVEY INFORMATION		
Project Name	Campo Wind (Private Land)	
Survey Date	2018-05-12	
Biologist(s)	Margie Mulligan	
Survey Area	Private 1	
Survey Pass	10	

			SURVE	CONDIT	IONS		
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:32:00	49	0	100	5	drizzle	
End	09:35:00	53	0	50	10	patchy	
End	10:33:00	57	0	10	15	clear	
	11:31:00	61	0	0	15	clear	
End	12:43:00	61	0	0	20		

	BUTTERFLY LIST SPECIES (COUNT)	
(none)		

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)		
(none)		

INCIDENTAL PLANT LIST		
(none)		



GENERAL SURVEY INFORMATION		
Project Name	Campo Wind (Private Land)	
Survey Date	2018-05-11	
Biologist(s)	Jeffrey Priest	
Survey Area	Private 2	
Survey Pass	10	

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:45:00	62	62	20	8		
Mid day, valley, wind rising	13:00:00	72	79	20	29		Wind 8-15, gusts 15-29 mph.
End	14:00:00	72	79	20	30		Winds above protocol, survey cut short.

	BUTTERFLY LIST SPECIES (COUNT)				
Acmon blue (1)	Behr's metalmark (1)	blue-gray gnatcatcher (1+)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
acorn woodpecker (1+)	common raven (1+)	Merriam's chipmunk (1+)			
Bewick's wren (1+)	common side-blotched lizard (1+)	mourning dove (1+)			
brush rabbit (1+)	coyote (1+)	red-tailed hawk (1+)			
bushtit (1+)	granite spiny lizard (1+)	turkey vulture (1+)			
California ground squirrel (1+)	house finch (1+)	white-throated swift (1+)			
California scrub-jay (1+)	lesser goldfinch (1+)				

INCIDENTAL PLANT LIST				
(none)				



GENERAL SURVEY INFORMATION					
Project Name	ject Name Campo Wind (Private Land)				
Survey Date	2018-05-11				
Biologist(s)	Tricia Wotipka				
Survey Area	Private 3				
Survey Pass	10				

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:45:00	62	62	20	8	patchy	
End	14:00:00	72	79	40	27	patchy	Survey was called short due to sustained high winds exceeding an average of 15mph over a 30 second period.

	BUTTERFLY LIST SPECIES (COUNT)			
Acmon blue (1+)	blue-gray gnatcatcher (1+)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
oak titmouse (1+)	common side-blotched lizard (1+)	spotted towhee (1+)			
American crow (1+)	granite spiny lizard (1+)	turkey vulture (1+)			
brush rabbit (1+)	greater roadrunner (1+)	white-throated swift (1+)			
bushtit (1+)	house finch (1+)	wrentit (1+)			
California ground squirrel (1+)	lesser goldfinch (1+)				
California scrub-jay (1+)	Merriam's chipmunk (1+)				

INCIDENTAL PLANT LIST					
(none)					



GENERAL SURVEY INFORMATION					
Project Name	Campo Wind (Private Land)				
Survey Date	2018-05-12				
Biologist(s)	Jeffrey Priest				
Survey Area	Private 4				
Survey Pass	10				

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	10:00:00	54	62	10	10		
Mid day	12:34:00	58	64	10	8		
End	16:45:00	63	70	0	15		Wind 5-10 with gusts 10-15

	BUTTERFLY LIST SPECIES (COUNT)			
Acmon blue (1)	blue-gray gnatcatcher (1+)	Propertius duskywing (1)		

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
acorn woodpecker (1+)	cliff swallow (1+)	mourning dove (1+)			
American crow (1+)	common raven (1+)	mule deer (1+)			
ash-throated flycatcher (1+)	common side-blotched lizard (1+)	northern flicker (1+)			
Bewick's wren (1+)	coyote (1+)	red-tailed hawk (1+)			
black-throated sparrow (1+)	granite spiny lizard (1+)	Say's phoebe (1+)			
brush rabbit (1+)	greater roadrunner (1+)	spotted towhee (1+)			
bushtit (1+)	house finch (1+)	western rattlesnake (1+)			
California scrub-jay (1+)	lesser goldfinch (1+)	white-throated swift (1+)			
California towhee (1+)	Merriam's chipmunk (1+)				

INCIDENTAL PLANT LIST				
(none)				



GENERAL SURVEY INFORMATION			
Project Name Campo Wind (Private Land)			
Survey Date	2018-05-13		
Biologist(s)	Jeffrey Priest		
Survey Area	Private 5		
Survey Pass	10		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:30:00	58	62	0	5		
Mid day	12:07:00	70	76	0	10		Wind in valley: 2-7 with gusts 7-10. Wind on small peak: 6-10 with gusts 10-15.
End	16:00:00	75	82	0	12		

	BUTTERFLY LIST SPECIES (COUNT)		
Acmon blue (1)	Lorquin's admiral (1)		

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
American crow (1+)	California towhee (1+)	Merriam's chipmunk (1+)			
American kestrel (1+)	common raven (1+)	mourning dove (1+)			
Anna's hummingbird (1+)	coyote (1+)	mule deer (1+)			
black-tailed jackrabbit (1+)	granite spiny lizard (1+)	northern flicker (1+)			
black-throated sparrow (1+)	greater roadrunner (1+)	red-tailed hawk (1+)			
brush rabbit (1+)	house finch (1+)	turkey vulture (1+)			
bushtit (1+)	lesser goldfinch (1+)				

INCIDENTAL PLANT LIST			
(none)			



GENERAL SURVEY INFORMATION			
Project Name Campo Wind (Private Land)			
Survey Date	2018-05-11		
Biologist(s)	Margie Mulligan		
Survey Area	Private 6		
Survey Pass	10		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:04:00	60	0		8	clear	
	11:55:00	71	0	10	13	clear	Gusts to 13
End	14:02:00	70	0	20	17	clear	Gusts to 25

	BUTTERFLY LIST SPECIES (COUNT)	
Acmon blue (1)		

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)			
(none)			

INCIDENTAL PLANT LIST				
(none)				



Quino Checkerspot Butterfly Survey Data Form

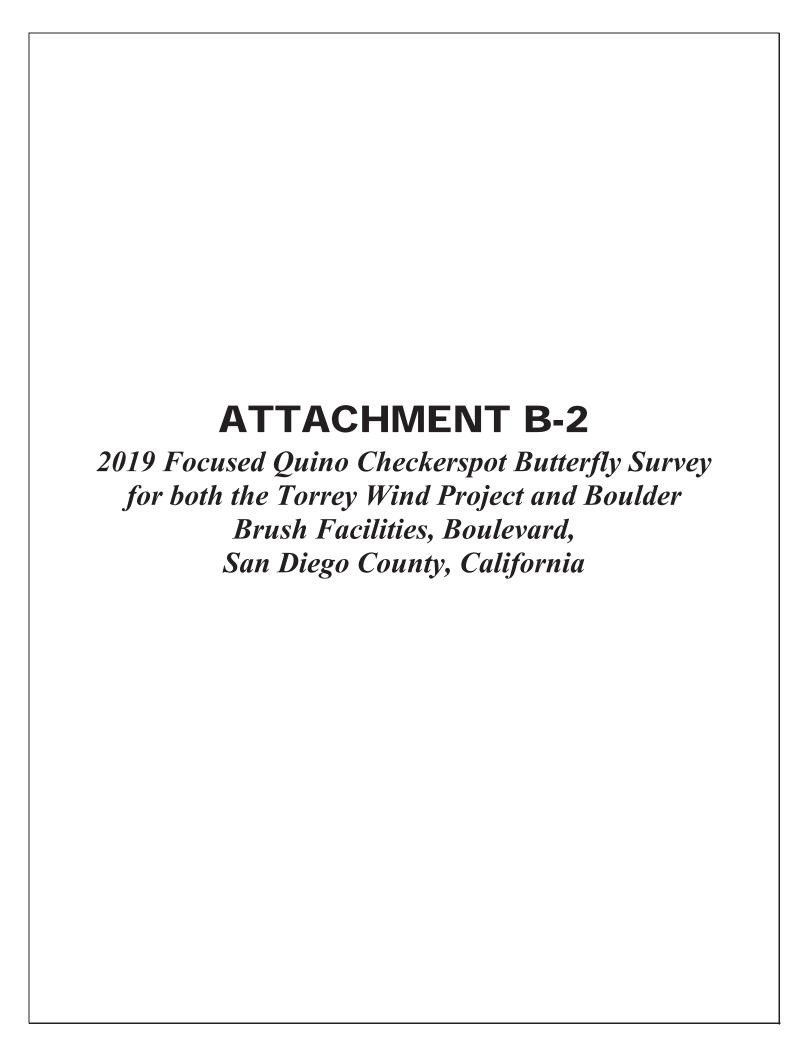
GENERAL SURVEY INFORMATION					
Project Name Campo Wind (Private Land)					
Survey Date 2018-05-11					
Biologist(s)	Erik LaCoste				
Survey Area	Private 7, Private 8				
Survey Pass	10				

SURVEY CONDITIONS							
Status Time Air Ground Cover (%) Wind (mph) Sky Notes							Notes
Start	08:15:00	60	63	0	8	clear	
End	13:45:00	70	72	10	26	clear	

	BUTTERFLY LIST SPECIES (COUNT)	
California sister (1)		

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
(none)				

INCIDENTAL PLANT LIST				
(none)				



August 7, 2019 10212

U.S. Fish and Wildlife Service Attention: Stacey Love, Recovery Permit Coordinator 2177 Salk Avenue, Suite 250 Carlsbad, California 92008

Subject: 2019 Focused Quino Checkerspot Butterfly Survey Report for Proposed Wind Energy Facilities,

Boulevard, San Diego County, California

Dear Ms. Love:

This letter report documents the spring 2019 results of a focused survey conducted by Dudek for the federally listed endangered Quino checkerspot butterfly (*Euphydryas editha quino*) (Quino). This survey was conducted in support of proposed wind energy facilities north of the community of Boulevard in southeastern San Diego County, California. This report is intended to satisfy reporting requirements for the following Quino-permitted biologists: <u>Andrew Borcher (TE-092162-4)</u>, Antonette Gutierrez (TE-50992B), Brock Ortega (TE-813545-6), Callie Amoaku (TE-36118B-1), David Erik LaCoste (TE-027736-6), Diana Saucedo (TE-221287-1), Erin Bergman (TE-53771B-2), Garrett Huffman (TE-20186A-2.1), Jeff Priest (TE-840619-6), Lindsay Willrick (TE-61175B-0), Margie Mulligan (TE-88969B-0), Patricia Schuyler (TE-27502B-1), and Victor Novik (TE-069534).

Study Area and Existing Conditions

The study area is located in southeastern San Diego County north of the community of Boulevard, California (Figure 1, Survey Results – Index). The study area consisted of the anticipated disturbance areas with an additional 250-foot buffer along the outer edge of anticipated disturbance areas (Figures 2 and 3, Survey Results). The study area includes the disturbances and associated buffer for the Boulder Brush Facilities (a component of the Campo Wind Project) and for the Torrey Wind Project (see Figure 1).

The study area is situated north of the community of Boulevard and Interstate (I-)8 at an elevation between approximately 3,280 feet and 4,120 feet above mean sea level. The landscape consists of a mixture of large-lot rural residences and open space with mountainous terrain consisting of steep slopes, prominent ridgelines, and rock outcroppings.

The study area is located in the McCain Valley area of unincorporated areas of San Diego County, north of the community of Boulevard and I-8. It currently consists of largely undeveloped ranch land, a portion of which has historically been used by private, off-road recreational vehicles. The surrounding area primarily consists of vacant land. The 500 kV Sunrise Powerlink traverses the northeast portion of the study area, and wind turbines associated with the Kumeyaay Wind and Tule Wind facilities are located to the southwest, east, northeast, and north.

The study area is within the U.S. Geological Survey's 7.5-minute Sombrero Peak and Live Oak Springs quadrangle maps within Township 17 South, Range 7 East, Sections 05, 06, 07, and 08; and Township 16 South, Range 7 East, Sections 19, 20, 29, 30, 31, and 32...



Subject: 2019 Focused Quino Checkerspot Butterfly Survey Report for Proposed Wind Energy Facilities, Boulevard, San Diego County, California

According to the U.S. Department of Agriculture, Natural Resources Conservation Service, the following seven soil series were mapped within the study area: Calpine (coarse sandy loam, 5% to 9% slopes); La Posta (loamy coarse sand, 5% to 30% slopes, eroded); loamy coarse sand, 5% to 30% slopes, eroded); loamy alluvial land; Mottsville (loamy coarse sand, 2% to 9% slopes); and Tollhouse (rocky coarse sandy loam, 5% to 30% slopes, eroded) (USDA 2019).

Vegetation Communities

The study area supports chaparral, scrub, grassland, and oak woodland communities.

Quino Checkerspot Butterfly Survey

Background Information

The Quino subspecies was added to the federal Endangered Species List by the U.S. Fish and Wildlife Service (USFWS) on January 16, 1997 (62 FR 2313–2322). The species, Edith's checkerspot (*E. editha*), has a range extending from British Columbia and Alberta, Canada, south through Colorado and Utah, and west along the coast to northern Baja California. It is divided into 20 subspecies, each of which has its own range and biological and morphological characteristics. In California, there are 12 subspecies (Garth and Tilden 1986), 3 of which are currently known to occur in Southern California. The Quino is the southwestern-most subspecies of *E. editha* (Mattoni et al. 1997).

The Quino is known to occur in association with a variety of plant communities, soil types, and elevations (up to 5,000 feet above mean sea level). The plant communities include clay soil meadows, open grasslands, coastal sage scrub, chamise chaparral, red shank chaparral, juniper woodlands, and semi-desert scrub (Ballmer et al. 2001). The Quino is also associated with clay soils that possess cryptogamic crusts and vernal pools (USFWS 2002).

The Quino is a medium-sized butterfly (approximately 0.8-inch to 1.1-inch wingspan) belonging to the family Nymphalidae. The adults are primarily orange-red with white and black markings on the dorsal wing surface. They are active primarily in March and April, but this active period may vary depending on weather conditions (Ballmer et al. 2001). The adult butterfly feeds on nectar, which it obtains from spring annuals such as popcorn flower (*Plagiobothrys* spp., *Cryptantha* spp.), whitedaisy tidytips (*Layia glandulosa*), goldenbush (*Ericameria* spp.), pincushion (*Chaenactis* spp.), fiddleneck (*Amsinckia* spp.), chia (*Salvia columbariae*), and bluedicks (*Dichelostemma capitatum*), among others.

Adult males and virgin females sometimes "hilltop," or travel to elevated locations to find mates. While waiting for females to arrive, the males will often exhibit territorial behavior and will chase other butterflies that approach them. Frequently, the butterflies are observed in meadows or clearings where their host plants occur (Ballmer et al. 2001).

A female may lay 20 to 75 eggs at one time and may produce up to 1,200 eggs in her lifetime. The eggs hatch in approximately 10 days under favorable weather conditions and the young larvae will immediately begin to feed upon a host plant. As of 2014, the USFWS considers the following as larval host plants: dwarf plantain (*Plantago erecta*), woolly plantain (*P. patagonica*), Coulter's snapdragon (*Antirrhinum coulterianum*), purple Chinese houses (*Collinsia*)

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Subject: 2019 Focused Quino Checkerspot Butterfly Survey Report for Proposed Wind Energy Facilities, Boulevard, San Diego County, California

heterophylla), stiffbranch bird's beak (Cordylanthus rigidus), and exserted Indian paintbrush (Castilleja exserta) (USFWS 2014). In addition, Chinese houses (Collinsia concolor) is a potential larval host plant (Pratt and Pierce 2009).

After feeding, the early larva enters an obligatory aestival diapause (dormant stage), which may be broken after fall or winter rains (Murphy and White 1984; Osborne 1998). If adverse weather conditions occur, the emergent larva may reenter a diapause stage repeatedly, for up to 5 or 6 years, until favorable weather conditions permit sufficient growth of the host plant to allow the larva to complete its development.

The Quino was once common in Southern California. It ranged north into Ventura County, west to the Pacific Ocean, east to the deserts, and south into northern Baja California. Currently, it is known to occur only in a few, potentially isolated, colonies in southwestern Riverside County, San Diego County, and northern Baja California.

Reasons for the butterfly's reduction in population are not well understood. Habitat loss due to degradation and fragmentation caused by urban and rural development, agricultural conversion, off-road vehicular use, the invasion of non-native plants and insects, fire management practices, over collecting, and adverse weather conditions have likely contributed to the species' decline (62 FR 2313–2322).

Methods – Habitat Assessment and Host Plant Mapping

Prior to the 2018 focused surveys, Dudek biologists conducted a habitat assessment in 2018 within the study area in order to identify suitable habitat and exclude unsuitable habitat for focused surveys. Exclusion areas, which were based on the 2018 habitat assessment, consisted of densely vegetated chaparral with tall shrubs forming closed canopies. While host plant surveys were performed in concert with the habitat assessment, surveyors also looked for host plants during the 2018 focused surveys to document any changes from the initial host plant mapping effort. No host plants were observed in 2018 during focused surveys (Dudek 2019a, 2019b).

Dudek biologists conducted two passes of Quino host plant mapping surveys between March 6 and May 2, 2019, as shown the schedule provided in Table 1. Botanical surveys were conducted by biologists Patricia Schuyler, Shana Carey, Olivia Koziel, and Margie Mulligan. All surveys were conducted on foot. Approximately 10 person-days were spent conducting host plant mapping within the study area.

The host plant mapping surveys focused on the identification and location of six recognized host plants and one potential host plant for Quino: dwarf plantain, woolly plantain, Coulter's snapdragon, stiffbranch bird's beak, exserted Indian paintbrush, purple Chinese houses, and Chinese houses (USFWS 2014; Pratt and Pierce 2009). However, purple Chinese houses do not have an eastern San Diego County distribution and therefore are not likely to occur within the study area. Nectar plants were recorded each week of surveys.

Table 1. Schedule of 2019 Host Plant Mapping Surveys

Date	Hours	Personnel	Conditions (temperature, cloud cover, wind speed)
2019-03-06	10:30 a.m. – 5:00 p.m.	Shana Carey and Patricia Schuyler	51°F-59°F; 20%-70% cloud cover; 12-22 mph wind
2019-03-07	8:29 a.m3:59 p.m.	Margie Mulligan	53°F-57°F; 50%-90% cloud cover; 5-20 mph wind
2019-03-07	8:30 a.m3:00 p.m.	Shana Carey	48°F-51°F; 50%-80% cloud cover; 8-19 mph wind
2019-04-22	8:20 a.m5:00 p.m.	Olivia Koziel	63°F-64°F; 10%-90% cloud cover; 2-8 mph wind



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Boulevard, San Diego County, California

Table 1. Schedule of 2019 Host Plant Mapping Surveys

Date	Hours	Personnel	Conditions (temperature, cloud cover, wind speed)
2019-04-23	8:15 a.m4:40 p.m.	Olivia Koziel	67°F-77°F; 0%-10% cloud cover; 1-7 mph wind
2019-04-24	8:00 a.m4:15 p.m.	Shana Carey	72°F-79°F; 0% cloud cover; 3–13 mph wind
2019-04-25	9:30 a.m5:30 p.m.	Shana Carey	58°F-69°F; 10% cloud cover; 1-10 mph wind
2019-05-03	9:00 a.m5:15 p.m.	Shana Carey	57°F-69°F; 0% cloud cover; 1-3 mph wind
2019-05-02	8:00 a.m4:30 p.m.	Shana Carey	67°F-74°F; 1% cloud cover; 2-4 mph wind

Dudek biologists recorded locations of Quino host plants using a mobile application for data collection and mapping. Data collected included the surveyor(s) date, species of host plant, and density of the host plant where the host plant was observed. All host plant occurrences were mapped as points. Density was collected using the following classes:

Very Low: 1–19 plantsLow: 20–100 plants

Medium: 100-500 plants

• High: 500–10,000+ plants

Points were collected within patches of host plant at least as close as every 3 meters (10 feet). At the conclusion of surveys, Dudek geographic information systems (GIS) analysts created a GIS coverage map for host plants. After review by a biologist, a geodatabase was created to ensure these data are topologically correct and met final quality control and assurance procedures.

Methods – Quino Protocol Surveys

The 2014 USFWS protocol states that focused Quino surveys should begin the third week of February and end the second Saturday in May, unless otherwise approved by USFWS. Surveys are to be conducted during the adult flight season by biologists possessing a recovery permit for this species pursuant to Section 10(a)(1)(A) of the federal Endangered Species Act (USFWS 2014). The 2019 focused surveys followed the 2014 USFWS protocol with the exception of an approved amendment discussed in the 2019 notification. The amendment allowed surveys to begin the week of March 11 to account for the location's higher elevation, generally colder conditions, and general later start of Quino emergence.

Focused Quino surveys were conducted over nine visits from March 15, 2019, through May 13, 2019, per the 2014 USFWS Quino Checkerspot Butterfly Survey Guidelines (see Table 2). The survey area consisted of suitable habitat for Quino within the anticipated disturbance areas and associated buffer (Figures 2 and 3). Surveys were conducted by Quino-permitted biologists Andrew Borcher (TE-092162-4), Antonette Gutierrez (TE-50992B), Brock Ortega (TE-813545-6), Callie Amoaku (TE-36118B-1), David Erik LaCoste (TE-027736-6), Diana Saucedo (TE-221287-1), Erin Bergman (TE-53771B-2), Garrett Huffman (TE-20186A-2.1), Jeff Priest (TE-840619-6), Lindsay Willrick (TE-61175B-0), Margie Mulligan (TE-88969B-0), Patricia Schuyler (TE-27502B-1), and Victor Novik (TE-069534).



Table 2. Schedule of 2019 Focused Quino Checkerspot Butterfly Surveys

Survey Area	Survey Pass	Survey Date	Biologist	Survey Time	Conditions	Notes
1	1 (7)	2019-03-16	VN	11:15 a.m6:00 p.m.	Air temp: 59°F-64°F; Ground temp: 61°F-63°F;	
	(Portion)				0% cloud cover; 4–13 mph wind; Clear	
	1	2019-03-17	AG, VN	9:30 a.m1:45 p.m.	Air temp: 62°F-67°F; Ground temp: 60°F-68°F;	
	(Finish)				0% cloud cover; 5–14 mph wind; Clear	
	2	2019-03-24	AG	9:45 a.m4:45 p.m.	Air temp: 65°F-75°F; Ground temp: 0°F-70°F;	
					0%-10% cloud cover; 0 mph wind; Clear	
	3	2019-03-26	DS, EL, LW	12:00 p.m2:10 p.m.	Air temp: 69°F-72°F; Ground temp: 69°F-72°F;	
					0% cloud cover; 1–4 mph wind; Clear	
	4	2019-04-08	DS, EL	8:30 a.m11:48 a.m.	Air temp: 70°F-83°F; Ground temp: 70°F-83°F;	
		00400444	10.101		10%–20% cloud cover; 0–4 mph wind; Clear to patchy	
	5	2019-04-14	AG, VN	9:30 a.m2:00 p.m.	Air temp: 68°F-80°F; Ground temp: 68°F-80°F;	
		2012.01.10		0.00	40% cloud cover; 0–12 mph wind; Overcast	
	6	2019-04-19	EL	8:00 a.m2:45 p.m.	Air temp: 70°F-84°F; Ground temp: 71°F-86°F;	
					10% cloud cover; 2–6 mph wind; Clear	
	7	2019-04-24	DS, EL	11:15 a.m2:45 p.m.	Air temp: 80°F-84°F; Ground temp: 84°F-85°F; Clear	
	8	2019-05-03	DS, EL, LW	8:25 a.m4:00 p.m.	65°F-84°F; 1-4 mph wind; Clear	Survey includes Area 2
	9	2019-05-10	AG	10:45 a.m5:45 p.m.	Air temp: 60°F-61°F; Ground temp: 62°F-70°F;	
					Water temp: null; 40%-100% cloud cover; 0-6 mph	
					wind; Overcast to null	
2	1	2019-03-15	AB	9:01 a.m4:01 p.m.	Air temp: 56°F-64°F; Ground temp: 0°F-56°F;	
					0% cloud cover; 1–14 mph wind; Clear	
	2	2019-03-19	AB	9:30 a.m4:32 p.m.	Air temp: 69°F-72°F; Ground temp: 0°F-65°F;	
					10% cloud cover; 0-3 mph wind; Clear	
	3	2019-03-25	LW	10:15 a.m11:45 a.m.	63°F-67°F; 0% cloud cover; 0-2 mph wind; Clear	
	(Portion)					
	3	2019-03-29	LW, DS, EL	9:45 a.m12:00 p.m.	67°F-70°F; 0% cloud cover; 0-3 mph wind; Clear	
	(Finish)					
	4	2019-04-09	CA, EL, PS	9:00 a.m11:30 a.m.	Air temp: 62°F-72°F; Ground temp: 62°F-71°F;	
	(Portion)				10%-30% cloud cover; 7-14 mph wind; Patchy	
	4	2019-04-10	CA	3:01 p.m4:45 p.m.	Air temp: 66°F-72°F; Ground temp: 72°F-78°F;	
	(Finish)				Clear	

Table 2. Schedule of 2019 Focused Quino Checkerspot Butterfly Surveys

Survey Area	Survey Pass	Survey Date	Biologist	Survey Time	Conditions	Notes
	5	2019-04-13	DS, LW	9:30 a.m1:00 p.m.	Air temp: 64°F-77°F; Ground temp: 61°F-79°F; 0% cloud cover; 0-4 mph wind; Clear	
	6	2019-04-19	DS, LW	8:00 a.m12:00 p.m.	71°F-85°F; 0%-10% cloud cover; 1-3 mph wind; Clear	
	7	2019-04-24	EL, LW	8:00 a.m11:15 a.m.	Air temp: 75°F-80°F; Ground temp: 75°F-84°F; 0% cloud cover; 1–6 mph wind; Clear	
	8	2019-05-03	DS, EL, LW	8:25 a.m4:00 p.m.	65°F-84°F; 1-4 mph wind; Clear	Survey includes Area 1
	9	2019-05-10	LW	10:45 a.m5:15 p.m.	70°F-72°F; 50%-70% cloud cover; 3-13 mph wind; Clear	
3	1	2018-03-17	GH	9:00 a.m4:00 p.m.	Air temp: 61°F-73°F; Ground temp: 64°F-75°F; 10% cloud cover; 2–10 mph wind; Clear	
	2	2019-03-22	CA, PS	10:22 a.m. – 2:30 p.m.	Air temp: 56.3°F-68°F; Ground temp: 60.1°F-70°F; 10%-20% cloud cover; 0-2 mph wind; Clear	
	3	2019-03-29	DS, EL, LW	2:20 p.m4:40 p.m.	Air temp: 67°F–72°F; Ground temp: 70°F–74°F; 10% cloud cover; 2–4 mph wind; Clear	
	4	2019-04-10	JP	9:00 a.m3:46 p.m.	Air temp: 60°F–68°F; Ground temp: 65°F–70°F; 0% cloud cover; 0–5 mph wind; Clear	
	5	2019-04-14	AG, VN	2:00 p.m5:40 p.m.	Air temp: 72°F-80°F; Ground temp: 72°F-80°F; Water temp: null; 20%-40% cloud cover; 0-12 mph wind; Patchy	
	6	2019-04-19	DS, LW	12:00 p.m3:30 p.m.	Air temp: 84°F-85°F; Ground temp: 86.5°F-87°F; 0%-10% cloud cover; 2-11 mph wind; Clear	
	7	2019-04-25	CA, EB, PS	8:14 a.m1:31 p.m.	Air temp: 68°F-91°F; Ground temp: 70°F-96°F; 0%-10% cloud cover; 0-3 mph wind; Clear	
	8	2019-05-03	DS, EL, LW	8:00 a.m2:30 p.m.	Air temp: 65°F-78°F; Ground temp: 65°F-84°F; 0% cloud cover; 2-9 mph wind; Clear	
	9 (Portion)	2019-05-06	EB	8:03 a.m10:55 a.m.	Air temp: 49°F–51°F; Ground temp: 53°F–55°F; Overcast	
	9 (Finish)	2019-05-10	DS	11:00 a.m5:45 p.m.	Air temp: 70°F; Ground temp: 74°F-75°F; 50%-70% cloud cover; 6-13 mph wind; Overcast to patchy	

Table 2. Schedule of 2019 Focused Quino Checkerspot Butterfly Surveys

Survey Area	Survey Pass	Survey Date	Biologist	Survey Time	Conditions	Notes
4	1 (Portion)	2019-03-15	VN	11:15 a.m. – 5:00 p.m.	Air temp: 57°F; Ground temp: 60°F; 30%–40% cloud cover; 2–14 mph wind	
	1 (Finish)	2019-03-16	VN	10:00 a.m11:15 a.m.	Air temp: 58°F-59°F; Ground temp: 60°F-61°F; 0% cloud cover; 8-17 mph wind; Clear	
	2	2019-03-24	DS, VN	9:15 a.m1:00 p.m.	Air temp: 60°F-69°F; Ground temp: 60°F-72°F; 0%-30% cloud cover; 0-7 mph wind; Clear	
	3	2019-03-30	AG, VN	9:15 p.m1:10 p.m.	Air temp: 62°F-70°F; Ground temp: 60°F-70°F; Water temp: null; null% cloud cover; 0-12 mph wind; Clear	
	4 a	2019-04-05	LW, DS	11:30 a.m12:00 p.m.	63°F-64°F; 90% cloud cover; 5-11 mph wind; Overcast to drizzle	
	4	2019-04-08	DS, EL	12:00 p.m3:20 p.m.	Air temp: 82°F-89°F; Ground temp: 83°F-91°F; 20% cloud cover; 2-4 mph wind; Patchy	
	5	2019-04-13	DS, LW	1:00 p.m4:35 p.m.	Air temp: 74°F–77°F; Ground temp: 77°F–79°F; 0% cloud cover; 0–1 mph wind; Clear	
	6	2019-04-19	AG	9:00 a.m4:00 p.m.	Air temp: 70°F-89°F; Ground temp: 68°F-81°F; Water temp: null; 10% cloud cover; 0-8 mph wind; Clear	
	7	2019-04-24	LW	8:30 a.m3:30 p.m.	67°F-73°C; 0% cloud cover; 0-5 mph wind; Clear	
	8	2019-05-02	DS, EL	12:00 p.m3:30 p.m.	Air temp: 77°F; Ground temp: 77°F; 40% cloud cover; 4–7 mph wind; Patchy	
	9	2019-05-12	AG	10:00 a.m5:00 p.m.	Air temp: 70°F-78°F; Ground temp: 71°F-76°F; Water temp: null; 20%-30% cloud cover; 0-7 mph wind; Patchy	
5	1	2019-03-17	DS, VN	9:30 a.m1:45 p.m.	Air temp: 62°F-67°F; Ground temp: 60°F-68°F; 0% cloud cover; 5-14 mph wind; Clear	
	2	2019-03-24	DS, VN	1:00 p.m4:30 p.m.	Air temp: 67°F-69°F; Ground temp: 70°F-72°F; 20%-30% cloud cover; 2-8 mph wind; Clear	
	3	2019-03-30	AG, VN	1:10 p.m4:40 p.m.	Air temp: 70°F; Ground temp: 63°F-70°F; 0% cloud cover; 2-12 mph wind; Clear	
	4	2019-04-04	DS, VN	10:37 a.m3:15 p.m.	Air temp: 59°F-62°F; Ground temp: 60.6°F-61°F; 10%-30% cloud cover; 4-10 mph wind; Patchy to clear	

Table 2. Schedule of 2019 Focused Quino Checkerspot Butterfly Surveys

Survey Area	Survey Pass	Survey Date	Biologist	Survey Time	Conditions	Notes
	5	2019-04-10	LW, MM	9:24 a.m1:02 p.m.	63°F-67°F; 0% cloud cover; 4-5 mph wind	
	6	2019-04-21	JP	9:00 a.m3:30 p.m.	Air temp: 56°F–68°F; Ground temp: 66°F–75°F; 0% cloud cover; 0–8 mph wind; Clear	
	7	2019-04-25	EL	7:50 a.m2:20 p.m.	Air temp: 67°F–90°F; Ground temp: 67°F–93°F; 0% cloud cover; 1–8 mph wind; Clear	
	8	2019-05-02	DS, EL	8:30 a.m12:00 p.m.	Air temp: 70°F-73°F; Ground temp: 70°F-74°F; 60%-90% cloud cover; 0-2 mph wind; Overcast to patchy	
	9	2019-05-09	AG, DS	11:15 a.m3:30 p.m.	Air temp: 61°F-63°F; Ground temp: 63°F-74°F; Water temp: null; 10%-30% cloud cover; 0-11 mph wind; Patchy	
6	1	2019-03-18	EB	8:51 a.m4:44 p.m.	Air temp: 70.2°F-77°F; Ground temp: 71.5°F-78°F; 0% cloud cover; 0-3 mph wind; Clear	
	2	2019-03-22	EB	9:41 a.m4:50 p.m.	Air temp: 61.4°F-67°F; Ground temp: 66.5°F-70°F; 0%-20% cloud cover; 0-3 mph wind; Clear	
	3	2019-03-29	CA, EB, PS	8:21 a.m12:04 p.m.	Air temp: 60°F–69°F; Ground temp: 60°F–65.7°F; 0% cloud cover; 0–3 mph wind; Clear	
	4	2019-04-04	CA, PS	10:40 a.m1:44 p.m.	Air temp: 52°F-61°F; Ground temp: 60°F-62.4°F; 0%-20% cloud cover; 2-7 mph wind; Clear	
	5	2019-04-10	EB	8:17 a.m6:09 p.m.	Air temp: 67°F–69°F; Ground temp: 69°F–74°F; 0% cloud cover; 0–4 mph wind; Clear	Survey includes Survey Area 7
	6	2019-04-17	CA, PS	1:25 p.m4:29 p.m.	Air temp: 75°F–76°F; Ground temp: 79°F–80°F; 0% cloud cover; 1–4 mph wind; Clear	
	7	2019-04-22	EB	8:54 a.m3:57 p.m.	Air temp: 69°F-70°F; Ground temp: 72°F-76°F; 30%-40% cloud cover; 0-3 mph wind; Clear to patchy	
	8	2019-05-02	EB	9:31 a.m4:11 p.m.	Air temp: 67°F-77°F; Ground temp: 70°F-84°F; 20%-40% cloud cover; 0-4 mph wind; Patchy to clear	
	9 (Portion)	2019-05-08	EB	8:45 a.m10:09 a.m.	Air temp: 50°F-57°F; Ground temp: 59°F-61°F; 100% cloud cover; 0-4 mph wind; Overcast	
	9 (Finish)	2019-05-13	EB	10:01 a.m5:02 p.m.	Air temp: 78°F-81°F; Ground temp: 75.2°F-87°F; 10%-60% cloud cover; 0-3 mph wind; Clear	

Table 2. Schedule of 2019 Focused Quino Checkerspot Butterfly Surveys

Survey Area	Survey Pass	Survey Date	Biologist	Survey Time	Conditions	Notes
7	1	2019-03-19	AB, LW	12:30 p.m5:15 p.m.	64°F-72°F; 0%-10% cloud cover; 0-5 mph wind; Clear	
	2	2019-03-23	JP	9:30 a.m4:30 p.m.	Air temp: 60°F-66°F; Ground temp: 60°F-64°F; 0% cloud cover; 2-14 mph wind; Clear	
	3	2019-03-29	CA, EB, PS	12:04 p.m2:54 p.m.	Air temp: 69°F-75°F; Ground temp: 65.7°F-75.7°F; 0%-20% cloud cover; 0-5 mph wind; Clear to patchy	
	4	2019-04-04	CA, PS	1:47 p.m5:10 p.m.	Air temp: 58°F-61°F; Ground temp: 60°F-62.4°F; 0%-50% cloud cover; 2-6 mph wind; Clear to Patchy	
	5	2019-04-10	EB, MM, LW	8:17 a.m6:09 p.m.	Air temp: 67°F-69°F; Ground temp: 69°F-74°F; 0% cloud cover; 0-4 mph wind; Clear	Survey includes Survey Area 6
	6	2019-04-17	CA, PS	9:48 a.m1:18 p.m.	Air temp: 72°F-74°F; Ground temp: 66°F-80°F; 0% cloud cover; 1–5 mph wind; Clear	
	7	2019-04-25	CA, EB, PS	1:40 p.m4:23 p.m.	Air temp: 81°F-91°F; Ground temp: 84°F-96°F; 0% cloud cover; 0-6 mph wind; Clear	
	8	2019-05-02	ВО	8:01 AM-2:59 AM	Air temp: 70–80°F; Ground temp: 70–78°F; 30–50% cloud cover; 1–5 mph wind; Patchy	
	9	2019-05-09	CA, PS	10:33 a.m2:01 p.m.	Air temp: 68°F-70°F; Ground temp: 65°F-77°F; 10%-40% cloud cover; 0-10 mph wind; Patchy to clear	
8	1	2019-03-17	JP	10:00 a.m2:30 p.m.	Air temp: 60°F-65°F; Ground temp: 60°F-66°F; 0% cloud cover; 3-12 mph wind; Clear	
	2	2019-03-22	CA, PS	2:44 p.m4:49 p.m.	Air temp: 66°F-69°F; Ground temp: 70°F-73°F; 20%-30% cloud cover; 0-2 mph wind; Clear	
	3 (Portion)	2019-03-27	PS	10:00 a.m10:58 a.m.	Air temp: 62°F; Ground temp: 63.3°F-64°F; 60%-100% cloud cover; 3-9 mph wind; Patchy to overcast	
	3 (Finish)	2019-03-29	CA, EB, PS	2:58 p.m4:34 p.m.	Air temp: 67°F-75°F; Ground temp: 69°F-75.7°F; 10%-20% cloud cover; 0-5 mph wind; Patchy to clear	
	4	2019-04-03	PS	10:16 a.m2:27 p.m.	Air temp: 56°F-61°F; Ground temp: 61°F-72°F; 30%-40% cloud cover; 4-12 mph wind; Patchy	
	5	2019-04-08	PS	10:11 a.m2:41 p.m.	Air temp: 80.6°F-86°F; ground temp: 79.5°F-89°F; Clear	

Table 2. Schedule of 2019 Focused Quino Checkerspot Butterfly Surveys

Survey Area	Survey Pass	Survey Date	Biologist	Survey Time	Conditions	Notes
	6	2019-04-15	PS	10:02 p.m2:26 p.m.	Air temp: 64°F-69.2°F; Ground temp: 69.4°F-71.9°F; 30%-40% cloud cover; 1-10 mph wind;	
					Patchy to clear	
	7	2019-04-25	PS	8:14 a.m12:49 p.m.	Air temp: 68°F-92°F; Ground temp: 70°F-96.2°F;	
					0%-10% cloud cover; 0-2 mph wind; Clear	
	8	2019-05-01	CA, PS	10:05 a.m2:32 p.m.	Air temp: 66°F-74°F; Ground temp: 69.1°F-81°F;	
					0% cloud cover; 0-5 mph wind; Clear	
	9	2019-05-09	CA, PS	2:08 p.m4:30 p.m.	Air temp: 65°F-68°F; Ground temp: 70°F-77°F;	
					10%-30% cloud cover; 2-8 mph wind; Clear	

Notes: AB = Andrew Borcher (TE-092162-4); AG = Antonette Gutierrez (TE-50992B); BO = Brock Ortega (TE-813545-6); CA = Callie Amoaku (TE-36118B-1); DS = Diana Saucedo (TE-221287-1); EB = Erin Bergman (TE-53771B-2); EL = David Erik LaCoste (TE-027736-6); GH = Garrett Huffman (TE-20186A-2.1); JP = Jeffrey Priest (TE-840619-6); LW = Lindsay Willrick (TE-61175B-0); MM = Margie Mulligan (TE-88969B-0); PS = Patricia Schuyler (TE-27502B-1); VN = Victor Novik (TE-069534).

^a Surveys terminated early due to non-protocol weather conditions.

Subject: 2019 Focused Quino Checkerspot Butterfly Survey Report for Proposed Wind Energy Facilities, Boulevard, San Diego County, California

Dudek biologists were provided with 200-scale (1 inch = 200 feet) aerial maps of the study area. Binoculars were used to aid in detecting and identifying butterfly and other wildlife species.

The survey methods consisted of slowly walking roughly parallel transects spaced approximately 30 feet (10 meters) apart throughout all suitable habitats within the 502-acre study area. The study area was divided into eight survey areas, ranging from 44 acres to 69 acres each (Figures 2 and 3). Survey routes were arranged to thoroughly cover the survey area at a rate of no more than 10 acres per person-hour. All wildlife species were recorded and are included in Appendix A.

Surveys were conducted only during acceptable weather conditions (i.e., surveys were not conducted during fog, drizzle, or rain; winds greater than 15 miles per hour measured 4 to 6 feet above ground level for more than 30 seconds; temperature in the shade at ground level less than 60°F on a clear, sunny day; or temperature in the shade at ground level less than 70°F on an overcast or cloudy day). Survey times, personnel, and conditions during the Quino survey are shown in Table 2. Copies of the surveyors' field notes are included as Appendix B.

Weather conditions varied throughout the survey season, and numerous surveys were postponed or ended early/began late due to high winds, cloud cover, and/or low temperatures. Because of these weather conditions, some areas were surveyed over 2 days to complete the survey. If a survey pass was missed due to sustained inclement weather, a makeup survey was performed on non-consecutive days the following week, in accordance with the 2014 USFWS protocol.

Results – Quino Protocol Survey

A total of five Quino were observed during the 2019 focused surveys by Ms. Erin Bergman on April 10, 2019 within the Boulder Brush Corridor (Figure 2a and 2b) (Appendix C). The Quino were observed in an area with open decomposed granite soils, hilltops, ridges, numerous granitic rock outcrops, and various nectar sources. No host plants were observed within the immediate survey area. Quino spent much of the observation time nectaring on Clearwater cryptantha (*Cryptantha intermedia* var. *intermedia*) and pointed cryptantha (*Cryptantha muricata* var. *jonesii*) for short periods of time (a few seconds), landing on bare ground (a few seconds) and performing hill topping behaviors the majority of the time. These Quino were only observed during this one survey week on this one day. No other Quino were observed during the protocol surveys. While there is suitable habitat within the Torrey Wind Project area, no Quino were observed within the Torrey Wind Project area (Figure 3a and 3b). However, based on communications with the USFWS (pers com 7/10/2019), the USFWS typically considers all suitable habitat within 1km of an observation to be occupied. The Quino observation within the Boulder Brush Corridor was within 1km of suitable habitat within the Torrey Wind Project area.

A total of 53 butterfly species were observed during the surveys. The weeks in which these butterflies were observed are shown in Tables 3A and 3B.

Table 3A. Butterflies Observed Within the Study Area During Weeks 1–5

			Week			
Scientific Name	Common Name	1	2	3	4	5
Hesperiidae - Skippers						
Copaeodes aurantiacus	orange skipperling	-	_	Х	_	_
Erynnis funeralis	funereal duskywing	Х	Х	Х	Х	Х
Erynnis propertius	Propertius duskywing	-	-	Х	Х	-



Subject: 2019 Focused Quino Checkerspot Butterfly Survey Report for Proposed Wind Energy Facilities, Boulevard, San Diego County, California

Table 3A. Butterflies Observed Within the Study Area During Weeks 1–5

Common Name				Week				
Erynnis tristis mournful duskywing - X X - X - X - X - X - X - X - <	Scientific Name	Common Name	1	2	3	4	5	
Pholisora catullus			-	-	_	_	_	
Pyrgus albescens White checkered-skipper X		Common sootywing	_	-	Х	Х	Х	
Nymphalidae - Brush-Footed Butterflies Chlosyne californica	Pyrgus albescens	white checkered-skipper	Х	-	Х	Х	_	
Chlosyne gabbii Gabb's checkerspot						ı		
Chlosyne gabbii Gabb's checkerspot	Chlosyne californica	California patch	Х	_	Х	_	_	
Danaus gilippus queen		Gabb's checkerspot	_	-	-	_	_	
Danaus plexippus monarch		queen	_	-	-	-	-	
Euphydryas chalcedona chalcedona Euphydryas editha quino Junonia coenia Nymphalis antiopa Nymphalis californica Vanessa annabella Vanessa cardui lady sp. Lycaenidae - Blues and Hairstreaks Atlides halesus Brephidium exile Callophrys augustinus Callophrys dumetorum bramble hairstreak Callophrys dumetorum Callophrys perplexa Euphilotes battoides bernardino Bernardino square-spotted blue Federa armona Euphydryas chilate of the country blue Federa armona Reakirt's blue Federa armona Melissa blue Strymon melinus Papilionidae - Swallowtails		monarch	_	Х	-	-	-	
Euphydryas editha quino quino checkerspot butterfly		Chalcedon variable checkerspot	_	-	-	-	-	
Junonia coenia Common buckeye -		quino checkerspot butterfly	_	-	_	_	Х	
Nymphalis antiopa mourning cloak		common buckeye	-	-	-	_	-	
Nymphalis californica California tortoiseshell X X X X X Vanessa annabella west coast lady X X X X X Vanessa cardui painted lady painted lady painted lady painted lady painted lady R X X X X X X X X X X X X X X X X X X		mourning cloak	-	-	-	_	-	
Vanessa annabella west coast lady X <t< td=""><td></td><td>California tortoiseshell</td><td>Х</td><td>Х</td><td>Х</td><td>Х</td><td>Х</td></t<>		California tortoiseshell	Х	Х	Х	Х	Х	
Lycaenidae - Blues and Hairstreaks Atlides halesus great purple hairstreak X Brephidium exile western pygmy-blue - X - X Callophrys augustinus brown elfin X X X X X Callophrys dumetorum bramble hairstreak X X X X X Callophrys dumetorum dffinis immaculate bramble hairstreak Callophrys perplexa Perplexing hairstreak - X Euphilotes battoides bernardino Bernardino square-spotted blue Everes amyntula western tailed-blue Glaucopsyche lygdamus australis southern blue Hemiargus ceraunus gyas Edward's blue X Hemiargus isola Reakirt's blue X Leptotes marina marine blue X Leptotes marina marine blue X Strymon melinus gray hairstreak - X - X - X Papillonidae - Swallowtails		west coast lady	Х	Х	Х	Х	Х	
Lycaenidae - Blues and Hairstreaks Atlides halesus Brephidium exile Western pygmy-blue X Callophrys augustinus Callophrys dumetorum bramble hairstreak X<		painted lady	Х	Х	Х	Х	Х	
Atlides halesus great purple hairstreak X Brephidium exile western pygmy-blue - X - X - X - X - X - X - X - X - X -		lady sp.	Х	Х	-	-	Х	
Brephidium exile western pygmy-blue	Lycaenidae - Blues and Hairstreaks					ı		
Callophrys augustinus Callophrys augustinus Drown elfin	Atlides halesus	great purple hairstreak	Х	_	_	_	Х	
Callophrys augustinus Callophrys dumetorum bramble hairstreak Callophrys dumetorum affinis immaculate bramble hairstreak Callophrys dumetorum affinis immaculate bramble hairstreak Callophrys perplexa Perplexing hairstreak Perplexing hairstreak Callophrys perplexa Euphilotes battoides bernardino Bernardino square-spotted blue Western tailed-blue Southern blue Callophrys perplexa Euphilotes battoides bernardino Bernardino square-spotted blue Callophrys perplexa Euphilotes battoides bernardino Bernardino square-spotted blue Callophrys perplexa Euphilotes battoides bernardino Bernardino square-spotted blue Callophrys dumetorum affinis Euphilotes battoides bernardino Bernardino square-spotted blue Callophrys dumetorum affinis Euphilotes battoides bernardino Bernardino square-spotted blue Callophrys dumetorum affinis Euphilotes battoides bernardino Bernardino square-spotted blue Callophrys dumetorum affinis Euphilotes battoides bernardino Bernardino square-spotted blue Callophrys dumetorum affinis Euphilotes battoides bernardino Reakirt's blue Callophrys dumetorum affinis Euphilotes battoides bernardino Euphilotes battoides bernardino Bernardino square-spotted blue Callophrys dumetorum affinis Euphilotes battoides bernardino Euphilotes battoides battoides battoides battoides battoides battoide	Brephidium exile	western pygmy-blue	_	Х	-	Х	_	
Callophrys dumetorumbramble hairstreakXXXCallophrys dumetorum affinisimmaculate bramble hairstreakCallophrys perplexaPerplexing hairstreak-XEuphilotes battoides bernardinoBernardino square-spotted blueEveres amyntulawestern tailed-blueGlaucopsyche lygdamus australissouthern blueHemiargus ceraunus gyasEdward's blueX-Hemiargus isolaReakirt's blueIcaricia acmon acmonAcmon blueX-Leptotes marinamarine blueX-Lycaeides melissaMelissa blueXStrymon melinusgray hairstreak-X-XPapilionidae - Swallowtails		brown elfin	Х	Х	Х	Х	Х	
Callophrys dumetorum affinis Callophrys perplexa Perplexing hairstreak Perplexing hairstreak Callophrys perplexa Perplexing hairstreak Perplexing hairstreak Callophrys perplexa Perplexing hairstreak Callophrys perplexa Perplexing hairstreak Callophrys perplexa Perplexing hairstreak Callophrys perplexa Perplexing hairstreak Callophrys perplexa Perplexing hairstreak Callophrys perplexa Perplexing hairstreak Callophrys perplexa Perplexing hairstreak Callophrys perplexa Perplexing hairstreak Callophrys perplexa Perplexing hairstreak Callophrys perplexa Perplexing hairstreak Callophrys perplexa Perplexing hairstreak Callophrys perplexa Perplexing hairstreak Callophrys perplexa Perplexing hairstreak Callophrys perplexa Nesters perplexing hairstreak Callophrys perplexa Callophrys perplexa Perplexing hairstreak Callophrys perplexa Callophrys perple	_	bramble hairstreak	Х	Х	Х	Х	Х	
Callophrys perplexa Perplexing hairstreak - X - - Euphilotes battoides bernardino Bernardino square-spotted blue - - - Everes amyntula western tailed-blue - - - Glaucopsyche lygdamus australis southern blue - - - Hemiargus ceraunus gyas Edward's blue - - X - Hemiargus isola Reakirt's blue - - - - Icaricia acmon acmon Acmon blue - - X - Leptotes marina marine blue - - X - Lycaeides melissa Melissa blue - - - X Strymon melinus gray hairstreak - X - X Papilionidae - Swallowtails		immaculate bramble hairstreak	_	-	-	-	_	
Euphilotes battoides bernardino Everes amyntula Glaucopsyche lygdamus australis Hemiargus ceraunus gyas Edward's blue Feakirt's blue Caricia acmon acmon Leptotes marina Lycaeides melissa Strymon melinus Bernardino square-spotted blue Western tailed-blue Feakirt's blue Fedward's blue Fedw		Perplexing hairstreak	-	Х	-	-	-	
Glaucopsyche lygdamus australis Hemiargus ceraunus gyas Edward's blue Reakirt's blue X - Hemiargus isola Reakirt's blue X - Icaricia acmon acmon Acmon blue X Leptotes marina Lycaeides melissa Melissa blue Strymon melinus Melissa blue Papilionidae – Swallowtails	Euphilotes battoides bernardino	Bernardino square-spotted blue	_	-	-	-	-	
Hemiargus ceraunus gyas Edward's blue - - X - Hemiargus isola Reakirt's blue - - - - - Icaricia acmon acmon Acmon blue - - X - Leptotes marina marine blue - - X Lycaeides melissa Melissa blue - - - Strymon melinus gray hairstreak - X - X Papillonidae - Swallowtails	Everes amyntula	western tailed-blue	_	-	-	-	-	
Hemiargus ceraunus gyas Edward's blue - - X - Hemiargus isola Reakirt's blue - - - - Icaricia acmon acmon Acmon blue - - X - Leptotes marina marine blue - - X - Lycaeides melissa Melissa blue - - - X Strymon melinus gray hairstreak - X - X Papilionidae - Swallowtails	Glaucopsyche lygdamus australis	southern blue	_	-	-	-	-	
Icaricia acmon acmon Acmon blue - - X - Leptotes marina marine blue - - - X Lycaeides melissa Melissa blue - - - - Strymon melinus gray hairstreak - X - X Papillonidae - Swallowtails - X - X		Edward's blue	_	-	Х	-	Х	
Leptotes marina marine blue - - X Lycaeides melissa Melissa blue - - - Strymon melinus gray hairstreak - X - X Papilionidae - Swallowtails - X - X - X	Hemiargus isola	Reakirt's blue	_	-	-	-	-	
Lycaeides melissa Melissa blue Strymon melinus gray hairstreak - X - X blue sp. Papilionidae – Swallowtails	Icaricia acmon acmon	Acmon blue	_	-	Х	-	Х	
Lycaeides melissa Melissa blue - - - - Strymon melinus gray hairstreak - X - X blue sp. - X - X Papilionidae - Swallowtails - X - X		marine blue	-	-	-	Х	Х	
Strymon melinus gray hairstreak - X - X blue sp X - X Papilionidae - Swallowtails		Melissa blue	-	-	-	-	-	
Papilionidae - Swallowtails	Strymon melinus	gray hairstreak	-	Х	-	Х	Х	
		blue sp.	-	Х	-	Х	-	
Papilio eurymedon pale swallowtail - - X -	Papilionidae – Swallowtails							
	Papilio eurymedon	pale swallowtail	_	-	Х	_	-	



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Table 3A. Butterflies Observed Within the Study Area During Weeks 1–5

		Week				
Scientific Name	Common Name	1	2	3	4	5
Pieridae - Whites and Sulfurs						
Anthocharis cethura	desert orangetip	X	Х	Х	Х	-
Anthocharis sara sara	Pacific Sara orangetip	Х	Х	Х	Х	Х
Colias eurydice	California dogface	-	Х	Х	Х	-
Colias eurytheme	orange sulphur	Х	-	Х	Х	-
Colias harfordii	Harford's sulphur	Х	Х	-	Х	Х
Euchloe hyantis	California marble	Х	-	-	-	-
Euchloe hyantis lotta	desert pearly marble	Х	Х	Х	Х	Х
Eurema nicippe	sleepy orange	-	-	-	-	-
Nathalis iole	dainty sulphur	Х	Х	Х	Х	Х
Phoebis sennae	cloudless sulphur	-	-	Х	-	-
Pieris rapae	cabbage white	-	Х	-	Х	Х
Pontia beckerii	Becker's white	-	-	Х	Х	-
Pontia protodice	checkered white	Х	Х	Х	Х	Х
Pontia sisymbrii	spring white	Х	Х	Х	Х	Х
	orangetip sp.	Х	-	-	-	-
	sulphur sp.	Х	Х	Х	Х	Х
	white sp.	-	Х	Х	-	Х
Riodinidae - Metalmarks						
Apodemia mormo virgulti	Behr's metalmark	_	Х	Х	Х	Х

Table 3B. Butterflies Observed Within the Study Area During Weeks 6-9

		Week						
Scientific Name	Common Name	6	7	8	9			
Hesperiidae – Skippers								
Copaeodes aurantiacus	orange skipperling	-	-	-	-			
Erynnis funeralis	funereal duskywing	Х	Х	Х	Х			
Erynnis propertius	Propertius duskywing	Х	Х	Х	Х			
Erynnis tristis	mournful duskywing	-	Χ	-	-			
Pholisora catullus	Common sootywing	Х	Χ	-	-			
Pyrgus albescens	white checkered-skipper	Х	Х	-	Х			
Nymphalidae – Brush-Footed Butterflies								
Chlosyne californica	California patch	-	_	-	-			
Chlosyne gabbii	Gabb's checkerspot	Χ	-	-	-			



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Table 3B. Butterflies Observed Within the Study Area During Weeks 6-9

Scientific Name	Common Name	6	7	8	9
Danaus gilippus	queen	Х	_	-	_
Danaus plexippus	monarch	-	-	_	Х
Euphydryas chalcedona chalcedona	Chalcedon variable checkerspot	X	-	-	-
Euphydryas editha quino	quino checkerspot butterfly	-	-	-	-
Junonia coenia	common buckeye	-	-	Х	-
Nymphalis antiopa	mourning cloak	-	-	Х	-
Nymphalis californica	California tortoiseshell	-	-	-	-
Vanessa annabella	west coast lady	Х	Х	Х	-
Vanessa cardui	painted lady	Х	Х	Х	Х
	lady sp.	Х	Х	Х	Х
Lycaenidae - Blues and Hairstreaks		·			
Atlides halesus	great purple hairstreak	X	Х	-	-
Brephidium exile	western pygmy-blue	Х	Х	Х	Х
Callophrys augustinus	brown elfin	-	-	Х	-
Callophrys dumetorum	bramble hairstreak	Х	-	Х	-
Callophrys dumetorum affinis	immaculate bramble hairstreak	-	Х	-	-
Callophrys perplexa	Perplexing hairstreak	-	-	-	-
Euphilotes battoides bernardino	Bernardino square-spotted blue	-	_	-	Х
Everes amyntula	western tailed-blue	-	_	Х	Х
Glaucopsyche lygdamus australis	southern blue	-	Х	-	-
Hemiargus ceraunus gyas	Edward's blue	X	Х	Х	Х
Hemiargus isola	Reakirt's blue	X	-	-	_
Icaricia acmon acmon	Acmon blue	-	Х	Х	Х
Leptotes marina	marine blue	-	X	Х	Х
Lycaeides melissa	Melissa blue	_	_	-	Х
Strymon melinus	gray hairstreak	X	X	X	Х
	blue sp.	X	_	Х	Х
Papilionidae - Swallowtails					
Papilio eurymedon	pale swallowtail	X	Х	Х	-
Pieridae - Whites and Sulfurs					
Anthocharis cethura	desert orangetip	X	_	Х	
Anthocharis sara sara	Pacific Sara orangetip	Х	Х	Х	Х
Colias eurydice	California dogface	Х	_	-	-
Colias eurytheme	orange sulphur	Х	Х	Х	Х
Colias harfordii	Harford's sulphur	Х	Х	Х	Х



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Table 3B. Butterflies Observed Within the Study Area During Weeks 6–9

		Week			
Scientific Name	Common Name	6	7	8	9
Euchloe hyantis	California marble	-	-	-	-
Euchloe hyantis lotta	desert pearly marble	Х	Х	Х	Х
Eurema nicippe	sleepy orange	Х	-	-	-
Nathalis iole	dainty sulphur	Х	Х	Х	Х
Phoebis sennae	cloudless sulphur	-	-	-	-
Pieris rapae	cabbage white	Х	-	Х	Х
Pontia beckerii	Becker's white	Х	-	-	Х
Pontia protodice	checkered white	Х	Х	Х	Х
Pontia sisymbrii	spring white	Х	-	-	-
	orangetip sp.	-	-	-	-
	sulphur sp.	Х	-	-	Х
	white sp.	Х	Х	Х	Х
Riodinidae – Metalmarks					
Apodemia mormo virgulti	Behr's metalmark	Х	Х	Х	Х

Results – Host Plant Mapping

Three Quino larval host plants, Coulter's snapdragon, Chinese houses, and stiffbranch bird's beak were observed within the study area during the focused surveys (Figures 4a, 4b, 5a, and 5b, Host Plant Mapping). Coulter's snapdragon was mapped with a Very Low density in one location in the southeastern portion of the study area (Figure 5). Chinese houses was the most abundant Quino larval host plant mapped throughout the study area with Very Low, Low, and Medium densities (Figures 4 and 5). The third Quino larval host plant, stiffbranch bird's beak, was mapped in five locations in the central and southern portions of the study area occurring in Very Low and Low densities (Figures 4 and 5). Table 4 includes the known and observed adult Quino nectar plants (according to Mattoni et al. 1997; USFWS 2002, 2003; 67 FR 18355–18395). Larval host plants are also included in Table 4 and are shown in bold print. All plant species that were in bloom during the 2019 surveys were documented in the field notes.

Table 4. Quino Adult Nectar Plants and Larval Food Plants

Scientific Name	Common Name	Observed During Focused Survey
Apiaceae - Carrot Family		
Lomatium dasycarpum ssp. dasycarpum	woollyfruit desertparsley	X
Lomatium utriculatum	common lomatium	_
Asteraceae - Sunflower Family		
Achillea millefolium	common yarrow, milfoil	X
Lasthenia californica or Lasthenia gracilis	California goldfields or needle goldfields	X
Lasthenia coronaria	royal goldfields	_

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Table 4. Quino Adult Nectar Plants and Larval Food Plants

Scientific Name	Common Name	Observed During Focused Survey
Layia platyglossa	coastal tidytips, common tidytips	Х
Boraginaceae - Borage Family		
Amsinckia menziesii	Menzies' fiddleneck, rancher's fireweed	Х
Amsinckia menziesii var. intermedia	rancher's fiddleneck	_
Amsinckia menziesii var. menziesii	rigid fiddleneck	_
Cryptantha spp. or Plagiobothrys spp.	cryptantha or popcorn flower	Х
Phacelia distans	distant phacelia, wild-heliotrope	X
Fabaceae – Pea Family		
Acmispon (=Lotus) spp.	deerweed, spanishclover, lotus	X
Hydrophyllaceae - Waterleaf Family		
Eriodictyon crassifolium var. crassifolium	thickleaf yerba santa	_
Eriodictyon trichocalyx var. trichocalyx	hairy yerba santa	_
Lamiaceae – Mint Family		
Salvia columbariae	chia	X
Plantaginaceae - Plantain Family		
Antirrhinum coulterianum	Coulter's snapdragon	X
Collinsia heterophylla	Purple Chinese houses	_
Collinsia concolor	Chinese houses	X
Keckiella antirrhinoides var. antirrhinoides	snapdragon penstemon	_
Keckiella cordifolia	heartleaf keckiella, climbing bush penstemon	_
Plantago erecta	dwarf plantain	_
Plantago patagonica	woolly plantain	_
Polemoniaceae - Phlox Family		
Gilia angelensis	chaparral gilia	X
Gilia capitata ssp. abrotanifolia	bluehead gilia	_
Linanthus spp.	ground pink	X
Polygonaceae - Buckwheat Family		
Eriogonum fasciculatum	California buckwheat	X
Orobanchaceae – Broom-Rape Family		
Castilleja exserta	exserted Indian paintbrush, common owl's-clover	_
Scrophulariaceae – Figwort Family		
Cordylanthus rigidus	stiffbranch bird's beak	X
Liliaceae – Lily Family		
Allium haematochiton	redskin onion	_
Allium peninsulare	Mexicali onion, red-flower onion	_



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Table 4. Quino Adult Nectar Plants and Larval Food Plants

Scientific Name	Common Name	Observed During Focused Survey
Allium praecox	early onion	_
Bloomeria clevelandii	San Diego goldenstar	_
Dichelostemma capitatum	bluedicks	X
Muilla maritima	sea muilla, common muilla	_

Sources: List derived from Mattoni et al. 1997; USFWS 2002, 2003; 67 FR 18355-18395 (for Euphydryas editha).

Note: Plants listed in **bold print** are known Quino larval host plant species.

Dudek certifies that the information in this survey report and the attached figures and appendices fully and accurately represents the work conducted by the Quino-permitted biologists who conducted this focused survey.

Please feel free to contact Brock Ortega at bortega@dudek.com or Callie Amoaku at cford@dudek.com if you have any questions regarding the contents of this report.

Sincerely,

Andrew Borcher Antonette Gutierrez
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Lindsay Willrick Permit #TE-61175B-0 Margie Mulligan Permit #TE-88969B-0 Patricia Schuyler Permit #TE-27502B-1

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Att: Figure 1, Survey Results - Index Map

Figure 2A, Survey Results - Boulder Brush

Figure 2B, Survey Results - Boulder Brush

Figure 3A, Survey Results - Torrey

Figure 3B, Survey Results - Torrey

Figure 4A, Host Plant Mapping - Boulder Brush

Figure 4B, Host Plant Mapping - Boulder Brush

Figure 5A, Host Plant Mapping - Torrey

Figure 5B, Host Plant Mapping - Torrey

Appendix A – List of Wildlife Species Observed during the 2019 Quino Survey for the Proposed Wind Energy Facilities

Appendix B - Field Notes Collected during the 2019 Quino Survey for the Proposed Wind Energy Facilities

Appendix C - Notification of Observation of Quino Checkerspot Butterfly for the Proposed Wind Energy Facilities

cc: Brock Ortega, Dudek

Matthew Valerio, Dudek

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Appendix A

List of Wildlife Species Observed during the 2019 Quino Survey for the Proposed Wind Energy Facilities

AMPHIBIAN

TOADS

BUFONIDAE—TRUE TOADS

Anaxyrus boreas-western toad

BIRD

BLACKBIRDS, ORIOLES, AND ALLIES

ICTERIDAE—BLACKBIRDS

Icterus cucullatus—hooded oriole Icterus parisorum—Scott's oriole Sturnella neglecta—western meadowlark

BUSHTITS

AEGITHALIDAE—LONG-TAILED TITS AND BUSHTITS

Psaltriparus minimus—bushtit

CARDINALS, GROSBEAKS, AND ALLIES

CARDINALIDAE—CARDINALS AND ALLIES

Pheucticus melanocephalus—black-headed grosbeak Piranga ludoviciana—western tanager

FALCONS

FALCONIDAE—CARACARAS AND FALCONS

Falco sparverius-American kestrel

FINCHES

FRINGILLIDAE-FRINGILLINE AND CARDUELINE FINCHES AND ALLIES

Haemorhous mexicanus—house finch Spinus psaltria—lesser goldfinch



FIYCATCHERS

TYRANNIDAE—TYRANT FLYCATCHERS

Contopus sordidulus—western wood-pewee

Empidonax hammondii—Hammond's flycatcher

Myiarchus cinerascens-ash-throated flycatcher

Sayornis nigricans—black phoebe

Sayornis saya-Say's phoebe

Tyrannus verticalis—western kingbird

Tyrannus vociferans—Cassin's kingbird

GOATSUCKERS

CAPRIMULGIDAE—GOATSUCKERS

Phalaenoptilus nuttallii—common poorwill

HAWKS

ACCIPITRIDAE-HAWKS, KITES, EAGLES, AND ALLIES

Accipiter cooperii—Cooper's hawk

Buteo jamaicensis—red-tailed hawk

HUMMINGRIRDS

TROCHILIDAE—HUMMINGBIRDS

Archilochus alexandri—black-chinned hummingbird Calypte anna—Anna's hummingbird Calypte costae—Costa's hummingbird

JAYS, MAGPIES, AND CROWS

CORVIDAE—CROWS AND JAYS

Aphelocoma californica—California scrub-jay Corvus brachyrhynchos—American crow Corvus corax—common raven Cyanocitta stelleri—Steller's jay

MOCKINGBIRDS AND THRASHERS

MIMIDAE-MOCKINGBIRDS AND THRASHERS

Mimus polyglottos—northern mockingbird Toxostoma redivivum—California thrasher



NEW WORLD QUAIL

ODONTOPHORIDAE—NEW WORLD QUAIL

Callipepla californica—California quail
Oreortyx pictus—mountain quail

NEW WORLD SPARROWS

PASSERELLIDAE—NEW WORLD SPARROWS

Amphispiza bilineata—black-throated sparrow

Junco hyemalis—dark-eyed junco

Melospiza melodia—song sparrow

Melozone crissalis-California towhee

Pipilo maculatus-spotted towhee

Spizella atrogularis-black-chinned sparrow

Spizella passerina—chipping sparrow

Zonotrichia leucophrys-white-crowned sparrow

NEW WORLD VULTURES

CATHARTIDAE—NEW WORLD VULTURES

Cathartes aura-turkey vulture

NUTHATCHES

SITTIDAE—NUTHATCHES

Sitta carolinensis—white-breasted nuthatch

OLD WORLD WARBLERS AND GNATCATCHERS

SYLVIIDAE—SYLVIID WARBLERS

Polioptila caerulea—blue-gray gnatcatcher

OWIS

TYTONIDAE—BARN OWLS

Tyto alba-barn owl



PIGEONS AND DOVES

COLUMBIDAE—PIGEONS AND DOVES

Patagioenas fasciata—band-tailed pigeon

Zenaida macroura—mourning dove

* Streptopelia decaocto—Eurasian collared-dove

Zenaida asiatica—white-winged dove

QUAILS, PHEASANTS, AND RELATIVES

PHASIANIDAE—PARTRIDGES, GROUSE, TURKEYS, AND OLD WORLD QUAIL

Meleagris gallopavo—wild turkey

ROADRUNNERS AND CUCKOOS

CUCULIDAE-CUCKOOS, ROADRUNNERS, AND ANIS

Geococcyx californianus—greater roadrunner

SILKY FLYCATCHERS

PTILOGONATIDAE—SILKY-FLYCATCHERS

Phainopepla nitens-phainopepla

STARLINGS AND ALLIES

STURNIDAE—STARLINGS

* Sturnus vulgaris—European starling

SWALLOWS

HIRUNDINIDAE—SWALLOWS

Hirundo rustica—barn swallow

SWIFTS

APODIDAE—SWIFTS

Aeronautes saxatalis—white-throated swift

THRUSHES

TURDIDAE-THRUSHES

Sialia mexicana—western bluebird
Turdus migratorius—American robin



TITMICF

PARIDAE—CHICKADEES AND TITMICE

Baeolophus inornatus-oak titmouse

VIREOS

VIREONIDAE—VIREOS

Vireo gilvus—warbling vireo

WOOD WARBLERS AND ALLIES

PARULIDAE-WOOD-WARBLERS

Oreothlypis celata—orange-crowned warbler

Oreothlypis ruficapilla—Nashville warbler

Setophaga coronata—yellow-rumped warbler

Setophaga occidentalis—hermit warbler

Setophaga petechia—yellow warbler

Setophaga townsendi—Townsend's warbler

WOODPECKERS

PICIDAE-WOODPECKERS AND ALLIES

Colaptes auratus—northern flicker

Melanerpes formicivorus-acorn woodpecker

Dryobates nuttallii-Nuttall's woodpecker

Dryobates scalaris—ladder-backed woodpecker

WRENS

TROGLODYTIDAE—WRENS

Campylorhynchus brunneicapillus—cactus wren

Salpinctes obsoletus-rock wren

Thryomanes bewickii-Bewick's wren

WRENTITS

TIMALIIDAE—BABBLERS

Chamaea fasciata—wrentit



INVERTEBRATE

BUTTERFLIES

LYCAENIDAE-BLUES, HAIRSTREAKS, AND COPPERS

Atlides halesus—great purple hairstreak

Brephidium exile-western pygmy-blue

Callophrys augustinus—brown elfin

Callophrys dumetorum affinis—immaculate bramble hairstreak

Callophrys dumetorum—bramble hairstreak

Euphilotes battoides bernardino-Bernardino square-spotted blue

Everes amyntula—western tailed-blue

Glaucopsyche lygdamus australis—southern blue

Hemiargus ceraunus gyas-Edward's blue

Hemiargus isola—Reakirt's blue

Icaricia acmon acmon-Acmon blue

Leptotes marina—marine blue

Lycaeides melissa—Melissa blue

Strymon melinus—gray hairstreak

Callophrys perplexa—Perplexing hairstreak

-Blue sp.

NYMPHALIDAE—BRUSH-FOOTED BUTTERFLIES

Chlosyne californica—California patch

Chlosyne gabbii—Gabb's checkerspot

Danaus gilippus—queen

Danaus plexippus-monarch

Euphydryas chalcedona chalcedona—Chalcedon variable checkerspot

Euphydryas editha quino—quino checkerspot butterfly

Junonia coenia—common buckeye

Nymphalis antiopa—mourning cloak

Nymphalis californica—California tortoiseshell

Vanessa annabella—west coast lady

Vanessa cardui—painted lady

—Lady sp.

RIODINIDAE-METALMARKS

Apodemia mormo virgulti-Behr's metalmark



HESPERIIDAE—SKIPPERS

Copaeodes aurantiacus—orange skipperling

Erynnis funeralis-funereal duskywing

Erynnis propertius-Propertius duskywing

Erynnis tristis-mournful duskywing

Pholisora catullus—common sootywing

Pyrgus albescens—white checkered-skipper

PAPILIONIDAE—SWALLOWTAILS

Papilio eurymedon—pale swallowtail

PIERIDAE-WHITES AND SULFURS

Anthocharis cethura—desert orangetip

Anthocharis sara sara—Pacific sara orangetip

Colias eurydice—California dogface

Colias eurytheme—orange sulphur

Colias harfordii—Harford's sulphur

Euchloe hyantis lotta—desert pearly marble

Eurema nicippe—sleepy orange

Nathalis iole—dainty sulphur

Phoebis sennae—cloudless sulphur

Pieris rapae—cabbage white

Pontia beckerii-Becker's white

Pontia protodice—checkered white

Pontia sisymbrii—spring white

Euchloe hyantis—California marble

- —Orangetip sp.
- -Sulphur sp.
- -White sp.

MOTHS

SPHINGIDAE—HAWK MOTHS

Hyles lineata—white-lined sphinx moth



MAMMAI

CANIDS

CANIDAE—WOLVES AND FOXES

Canis latrans—coyote

CATS

FELIDAE—CATS

Puma concolor-cougar

HARES AND RABBITS

LEPORIDAE—HARES AND RABBITS

Lepus californicus bennettii—San Diego black-tailed jackrabbit Lepus californicus—black-tailed jackrabbit Sylvilagus audubonii—desert cottontail Sylvilagus bachmani—brush rabbit

KANGAROO RATS

HETEROMYIDAE-POCKET MICE AND KANGAROO RATS

Dipodomys sp.—kangaroo rat

POCKET GOPHERS

GEOMYIDAE—POCKET GOPHERS

Thomomys bottae—Botta's pocket gopher

RATS, MICE, AND VOLES

CRICETIDAE-RATS, MICE, AND VOLES

Neotoma lepida—desert woodrat Neotoma sp.—woodrat

SQUIRRELS

SCIURIDAE—SQUIRRELS

Ammospermophilus leucurus—white-tailed antelope squirrel Spermophilus (Otospermophilus) beecheyi—California ground squirrel Tamias merriami—Merriam's chipmunk



UNGULATES

CERVIDAE—DEERS

Odocoileus hemionus-mule deer

REPTILE

LIZARDS

CROTAPHYTIDAE—COLLARED LIZARDS

Gambelia wislizenii—long-nosed leopard lizard

PHRYNOSOMATIDAE—IGUANID LIZARDS

Phrynosoma blainvillii—Blainville's horned lizard Sceloporus occidentalis—western fence lizard Sceloporus orcutti—granite spiny lizard Uta stansburiana—common side-blotched lizard

SCINCIDAE—SKINKS

Plestiodon gilberti-Gilbert's skink

TEIIDAE-WHIPTAIL LIZARDS

Aspidoscelis tigris stejnegeri—San Diegan tiger whiptail Aspidoscelis tigris—tiger whiptail

SNAKES

COLUBRIDAE—COLUBRID SNAKES

Coluber lateralis—striped racer Pituophis catenifer—gophersnake

VIPERIDAE—VIPERS

Crotalus oreganus—western rattlesnake

* signifies introduced (non-native) species



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Appendix B

Field Notes Collected During the 2019 Quino Survey for the Proposed Wind Energy Facilities



GENERAL SURVEY INFORMATION			
Project Name	Proposed Wind Energy Facilities		
Survey Date	2019-03-16		
Biologist(s)	Victor Novik		
Survey Area	1		
Survey Pass	1		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	11:15:00	59	63	0	13	clear	
End	18:00:00	64	61	0	11	clear	

BUTTERFLY LIST SPECIES (COUNT)				
brown elfin (1)	Saras orangtip (17)			
painted lady (1+)	white checkered-skipper (1)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
(none)				

INCIDENTAL PLANT LIST					
Arabis sp.	Descurainia pinnata	Ribes quercetorum			
Camisonia sp.	Erodium cicutarium	Sanicula arguta			
Cryptantha sp.	Plagiobothrys sp.				



GENERAL SURVEY INFORMATION			
Project Name	Proposed Wind Energy Facilities		
Survey Date	2019-03-17		
Biologist(s)	Antonette Gutierrez, Victor Novik		
Survey Area	1		
Survey Pass	1		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:30:00	62	60	0	9	clear	
End	13:45:00	67	68	0	14	clear	

	BUTTERFLY LIST SPECIES (COUNT)				
bramble hairstreak (1)	Pacific sara orangetip (43) spring white (1)				
funereal duskywing (2)	painted lady (1+)	Sulphur sp. (3)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
(none)				

INCIDENTAL PLANT LIST					
Arctostaphylus sp.	Descurainia pinnata	Plagiobothryus sp.			
Camisonia sp.	Erodium cicutarium	Tropidocarpum gracile			
Cryptantha sp.	Lasthenia californica				



GENERAL SURVEY INFORMATION			
Project Name	Proposed Wind Energy Facilities		
Survey Date	2019-03-24		
Biologist(s)	Antonette Gutierrez		
Survey Area	1		
Survey Pass	2		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:45:00	65	0	0	2	clear	
End	16:45:00	75	70	10	2	clear	

	BUTTERFLY LIST SPECIES (COUNT)					
blue sp. (1)	funereal duskywing (5)	spring white (5)				
cabbage white (1)	Pacific sara orangetip (23)	sulphur butterfly sp (1+)				
dainty sulphur (1)	painted lady (11)	western bluebird (1+)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
black-chinned sparrow (1+)	common side-blotched lizard (1+)	red-tailed hawk (1+)			
California quail (1+)	coyote (1+)	Vanessa butterfly sp. (1+)			
California scrub-jay (1+)	granite spiny lizard (1+)	western fence lizard (1+)			
California thrasher (1+)	greater roadrunner (1+)	white butterfly sp (6)			
common raven (1+)	mule deer (1+)	wrentit (1+)			

INCIDENTAL PLANT LIST					
Boechera pulchra	Erodium cicutarium	Ranunculus californicus			
Camissoniopsis micrantha	Gilia diegensis	Rhus ovata			
Cercocarpus betuloides var. betuloides	Lasthenia glabrata	Salvia columbariae			
Descurainia pinnata ssp. brachycarpa	Lomatium mohavense	Xylococcus bicolor			
Ericameria pinifolia	Phacelia parryi				
Eriogonum fasciculatum var. fasciculatum	Plagiobothrys bracteatus				



GENERAL SURVEY INFORMATION				
Project Name Proposed Wind Energy Facilities				
Survey Date 2019-03-26				
Biologist(s) Diana Saucedo, Erik LaCoste, Lindsay Willrick				
Survey Area	1			
Survey Pass	1			

	SURVEY CONDITIONS						
Status Time Air Ground Cover (%) Wind (mph) Sky Notes							
Start	12:00:00	69	69	0	3	clear	
End	14:10:00	72	72	0	4	clear	

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (1)	common sootywing (14)	funereal duskywing (2)			
California tortoiseshell (7)	desert orangetip (2)	Pacific sara orangetip (11)			
checkered white (3)	desert pearly marble (2)	painted lady (40)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
(none)				

INCIDENTAL PLANT LIST					
Descurainia sophia Lomatium dasycarpum Linanthus bellus					
Eriophyllum wallacei	Plagiobothrys sp.				
Erodium cicutarium					



GENERAL SURVEY INFORMATION				
Project Name Proposed Wind Energy Facilities				
Survey Date	2019-04-08			
Biologist(s)	Diana Saucedo, Erik LaCoste			
Survey Area	1			
Survey Pass	4, Round 4 make up.			

SURVEY CONDITIONS							
Status Time Air Ground Cover (%) Wind (mph) Sky Notes							
Start	08:30:00	70	70	10	2	clear	
End	11:48:00	83	83	20	4	patchy	

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (19)	desert orangetip (5)	orange sulphur (8)			
bramble hairstreak (2)	desert pearly marble (34)	Pacific sara orangetip (16)			
brown elfin (3)	funereal duskywing (3)	painted lady (50)			
California tortoiseshell (6)	gray hairstreak (1)				
common sootywing (1)	Harford's sulphur (2)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
(none)				

INCIDENTAL PLANT LIST		
Acmispon strigosus	Descurainia pinnata	Oenothera californica
Amsinckia menziesii	Erodium sp.	Salvia columbariae
Camissoniopsis pallida	Gilia angelensis	Linanthus bellus
Ceanothus perplexans	Gilia diegensis	
Cryptantha sp.	Lasthenia sp.	



GENERAL SURVEY INFORMATION		
Project Name	Proposed Wind Energy Facilities	
Survey Date	2019-04-14	
Biologist(s)	Antonette Gutierrez, Victor Novik	
Survey Area	1	
Survey Pass	4	

			SURVE	Y CONDIT	TONS		
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:30:00	68	68	40	1	overcast	
End	14:00:00	80	80	40	12	overcast	

	BUTTERFLY LIST SPECIES (COUNT)	
Behr's metalmark (178)	great purple hairstreak (1)	painted lady (32)
brown elfin (1)	Harford's sulphur (1)	Unidentified lady (32)
checkered white (10)	marine blue (4)	Unidentified sulphur (19)
funereal duskywing (1)	Pacific sara orangetip (24)	

INCIE	DENTAL WILDLIFE LIST SPECIES (C	OUNT)
(none)		

INCIDENTAL PLANT LIST				
Amsinckia menziesii	Ericameria palmeri	Marah macrocarpa		
Arabis sp.	Erodium cicutarium	Oenothera californica		
Camisonia spp.	Gilia diegensis	Penstemon clevelandii		
Ceanothus leucodermis	Hypochaeris glabra	Phacelia distans		
Ceanothus perplexans	Lasthenia californica	Plagibothryus sp.		
Cercocarpus betuloides	Layia glandulosa	Platystemon californicus		
Chamyesecea sp.	Leptosiphon lemmonii	Salvia columbariae		
Cryptantha sp.	Linanthus sp.	Uropappus lindleyi		
Descurainia pinnata	Lomatium lucidum	Yucca schidigera		
Dichelostemma capitatum	Lupinus concinnus			
Emmenanthe penduliflora	Malacothrix californica			



GENERAL SURVEY INFORMATION		
Project Name	Proposed Wind Energy Facilities	
Survey Date	2019-04-19	
Biologist(s)	Erik LaCoste	
Survey Area	1	
Survey Pass	6	

			SURVE	Y CONDIT	IONS		
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:00:00	70	71	10	4	clear	
End	14:45:00	84	86	10	6	clear	

	BUTTERFLY LIST SPECIES (COUNT)	
Behr's metalmark (45)	dainty sulphur (8)	Reakirt's blue (1)
Blue sp. (1+)	desert pearly marble (10)	sleepy orange (2)
bramble hairstreak (1)	orange sulphur (4)	white checkered-skipper (1)
checkered white (2)	Pacific sara orangetip (8)	
common sootywing (2)	painted lady (8)	

INCIE	ENTAL WILDLIFE LIST SPECIES (C	OUNT)
Sulfur sp. (1+)		

INCIDENTAL PLANT LIST		
Amsinckia menziesii	Erodium cicutarium	Penstemon clevelandii
Camissonia strigulosa	Gilia diegensis	Phacelia cicutaria
Ceanothus leucodermis	Lasthenia glabrata	Phacelia parryi
Delphinium parishii	Leptosiphon lemmonii	Plagiobothrys sp.
Dichelostemma capitatum	Lupinus concinnus	Salvia columbariae
Eriophyllum wallacei	Oenothera californica	Linanthus bellus



GENERAL SURVEY INFORMATION		
Project Name	Proposed Wind Energy Facilities	
Survey Date	2019-04-24	
Biologist(s)	Diana Saucedo, Erik LaCoste	
Survey Area	1	
Survey Pass	7	

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	11:15:00	80	84	0	6	clear	
End	14:45:00	84	85	0	6	clear	

BUTTERFLY LIST SPECIES (COUNT)						
Acmon blue (3)	Edward's blue (3)	orange sulphur (4)				
Behr's metalmark (104)	funereal duskywing (7)	Pacific sara orangetip (27)				
dainty sulphur (3)	great purple hairstreak (1)	painted lady (22)				
desert pearly marble (11)	Harford's sulphur (3)	pale swallowtail (2)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
Checkered white Skipper (1)					

INCIDENTAL PLANT LIST						
Ceanothus leucodermis	Ericameria sp	Phacelia				
Ceanothus perplexans	Erodium cicutarium	Plagiobotrys sp				
Chaenactis sp	Lasthenia gracilis	Salvia columbariae				
Cryptantha micrantha	Layia platyglossa	Tropidocarpum gracile				
Delphinium	Lupinus concinnus	Linanthus bellus				
Descurainia pinnata	Malacothrix glabrata					
Descurainia sophia	Pectocarya recurvata					



GENERAL SURVEY INFORMATION					
Project Name	Proposed Wind Energy Facilities				
Survey Date	2019-05-10				
Biologist(s)	Antonette Gutierrez				
Survey Area	1				
Survey Pass	9null				

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	10:45:00	61	70	100	0	overcast	not overcast just clouds
End	17:45:00	60	62	40	6		

BUTTERFLY LIST SPECIES (COUNT)						
Behr's metalmark (1+)	funereal duskywing (1+)	painted lady (1+)				
checkered white (1+)	gray hairstreak (1+)					
Edward's blue (1+)	Pacific sara orangetip (1+)					

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
(none)					

INCIDENTAL PLANT LIST					
Acmispon strigosus	Descurainia pinnata ssp. brachycarpa	Lupinus concinnus			
Adenostoma fasciculatum	Dichelostemma capitatum ssp. capitatum	Oenothera californica ssp. avita			
Anisocoma acaulis	Emmenanthe penduliflora	Phacelia cicutaria var. hispida			
Astragulas sp	Ephedra californica	plagiobothrys sp			
Camissonia sp	Eriastrum eremicum	Rhus aromatica			
Ceanothus leucodermis	Ericameria linearifolia	Rhus ovata			
Chaenactis fremontii	Eriodictyon crassifolium var. nigrescens	Salvia columbariae			
Chaenactis glabriuscula	Eriogonum fasciculatum var. foliolosum	Solanum parishii			
Chorizanthe fimbriata	Eriophyllum wallacei	Geraea viscida			



INCIDENTAL PLANT LIST						
Collinsia concolor Erodium cicutarium Linanthus bellus						
cryptantha sp	Lasthenia glabrata					
Delphinium parishii ssp. parishii	Leptosiphon lemmonii					



GENERAL SURVEY INFORMATION					
Project Name Proposed Wind Energy Facilities					
Survey Date 2019-03-16					
Biologist(s) Andrew Borcher					
Survey Area	2				
Survey Pass	1				

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:01:00	56	56	0	5		Pass 1
End	16:01:00	64	0	0	14	clear	

	BUTTERFLY LIST SPECIES (COUNT)			
painted lady (1+)	Sara's orangetip (1+)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
Cactus wren (1+)	Turkey vulture (1+)	Western scrub jay (1+)			

INCIDENTAL PLANT LIST				
Cryptantha sp.	Erodium cicutarium	Lomatium dasycarpum		



GENERAL SURVEY INFORMATION				
Project Name Proposed Wind Energy Facilities				
Survey Date	ey Date 2019-03-19			
Biologist(s) Andrew Borcher				
Survey Area	2			
Survey Pass	2			

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:30:00	69	65	10	1	clear	Pass 2
End	16:32:00	72	0	10	3	clear	

	BUTTERFLY LIST SPECIES (COUNT)		
Painted Lady (1+)	Sara's orangetip (1+)		

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)						
Black-throated sparrow (1+) Dainty sulfur (1+) Perplexing hairstreak (1+)						
California tortoiseshell (1+) Gilberts skink (1+)						

INCIDENTAL PLANT LIST					
Cammosonia sp.	Descuriana sp	Lomatium			
Chryptantha sp Erodium cicutarium					



GENERAL SURVEY INFORMATION				
Project Name	Proposed Wind Energy Facilities			
Survey Date 2019-03-29				
Biologist(s) Diana Saucedo, Erik Lacoste, Lindsay Willrick				
Survey Area	2			
Survey Pass	4			

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:45:00	67	0	0	3	clear	
End	12:00:00	70	0	0	3	clear	

BUTTERFLY LIST SPECIES (COUNT)					
Becker's white (3)	common sootywing (24)	painted lady (74)			
Behr's metalmark (2)	desert orangetip (5)	pale swallowtail (1)			
blue-gray gnatcatcher (1+)	desert pearly marble (10)	spring white (3)			
bramble hairstreak (3)	funereal duskywing (7)	west coast lady (3)			
California patch (2)	orange skipperling (1)				
California tortoiseshell (23)	Pacific sara orangetip (7)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
oak titmouse (1+)	common raven (1+)	Sulfur sp. (1+)			
barn swallow (1+)	coyote (1+)	turkey vulture (1+)			
cactus wren (1+)	Nashville warbler (1+)	white-crowned sparrow (1+)			
California quail (1+)	red-tailed hawk (1+)	wrentit (1+)			
California scrub-jay (1+)	rock wren (1+)				
California thrasher (1+)	spotted towhee (1+)				

INCIDENTAL PLANT LIST		
Caulanthus heterophyllus	Lasthenia californica	Platystemon californicus
Descurainia sophia	Leptosyne californica	Ribes quercetorum
Eriophyllum wallacei	Lomatium dasycarpum	Salvia columbariae
Erodium cicutarium	Nama demissa	Linanthus bellus



GENERAL SURVEY INFORMATION		
Project Name	Proposed Wind Energy Facilities	
Survey Date	2019-03-25	
Biologist(s)	Lindsay Willrick	
Survey Area	2	
Survey Pass	3	

			SURVE	CONDIT	IONS		
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	10:15:00	63	0	0	2	clear	
End	11:45:00	67	0	0	2	clear	

	BUTTERFLY LIST SPECIES (COUNT)	
California patch (2)	painted lady (3)	
desert orangetip (2)	white checkered-skipper (1)	

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)			
California scrub-jay (1+) common raven (1+) white-crowned sparrow (1+)			
California thrasher (1+)	cougar (1+)		

INCIDENTAL PLANT LIST		
Erodium cicutarium	Lomatium dasycarpum	



GENERAL SURVEY INFORMATION		
Project Name	Proposed Wind Energy Facilities	
Survey Date	2019-04-10	
Biologist(s)	Callie Amoaku	
Survey Area	2	
Survey Pass	5	

			SURVE	CONDIT	IONS		
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	15:01:00	72	78	0	2	clear	
End	16:45:00	66	72	0	4	clear	

	BUTTERFLY LIST SPECIES (COUNT)	
Behr's metalmark (12)	painted lady (16)	
desert pearly marble (8)	Propertius duskywing (2)	

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)		
spotted towhee (1+)	white-crowned sparrow (1+)	

INCIDENTAL PLANT LIST		
(none)		



GENERAL SURVEY INFORMATION		
Project Name	Proposed Wind Energy Facilities	
Survey Date	2019-04-09	
Biologist(s)	Callie Amoaku, Erik LaCoste, Patricia Schuyler	
Survey Area	2	
Survey Pass	5	

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:00:00	62	62	30	12	patchy	
Mid	10:43:00	72	71	10	14	patchy	
End	11:30:00	72	76	20	21	patchy	Called off early due to heavy winds.

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (27)	checkered white (1)	orange sulphur (1)			
Blue sp. (1+)	common sootywing (3)	Pacific sara orangetip (3)			
bramble hairstreak (1)	desert orangetip (3)	painted lady (38)			
cabbage white (1)	desert pearly marble (5)	Propertius duskywing (1)			
California tortoiseshell (3)	funereal duskywing (3)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
(none)				

INCIDENTAL PLANT LIST					
Boechera pulchra	Gilia diegensis	Plagiobothrys sp			
Descurainia pinnata	Lasthenia sp.	Salvia columbariae			
Erodium sp.	Lomatium dasycarpum	Linanthus bellus			
Gilia angelensis	Lupinus concinnus				



GENERAL SURVEY INFORMATION					
Project Name Proposed Wind Energy Facilities					
Survey Date	2019-04-13				
Biologist(s)	Diana Saucedo, Lindsay Willrick				
Survey Area	2				
Survey Pass	5				

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:30:00	64	61	0	4	clear	
End	13:00:00	77	79	0	1	clear	

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (1+)	common sootywing (4)	Harford's sulphur (5)			
bramble hairstreak (1)	desert pearly marble (17)	Pacific sara orangetip (6)			
California tortoiseshell (4)	Edward's blue (3)	painted lady (21)			
checkered white (4)	funereal duskywing (6)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
(none)				

INCIDENTAL PLANT LIST					
Cryptantha micrantha	Gilia sp	Lupinus concinnus			
Descurainia pinnata	Lasthenia gracilis	Salvia columbariae			
Descurainia sophia	Layia platyglossa	Linanthus bellus			
Erodium cicutarium	Leptosyne californica				



GENERAL SURVEY INFORMATION					
Project Name Proposed Wind Energy Facilities					
Survey Date	2019-04-13				
Biologist(s)	Diana Saucedo, Lindsay Willrick				
Survey Area	2				
Survey Pass	5				

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:30:00	64	61	0	4	clear	
End	13:00:00	77	79	0	1	clear	

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (1+)	common sootywing (4)	Harford's sulphur (5)			
bramble hairstreak (1)	desert pearly marble (17)	Pacific sara orangetip (6)			
California tortoiseshell (4)	Edward's blue (3)	painted lady (21)			
checkered white (4)	funereal duskywing (6)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
(none)				

INCIDENTAL PLANT LIST						
Cryptantha micrantha Gilia sp Lupinus concinnus						
Descurainia pinnata	Lasthenia gracilis	Salvia columbariae				
Descurainia sophia	Layia platyglossa	Linanthus bellus				
Erodium cicutarium	Leptosyne californica					



GENERAL SURVEY INFORMATION				
Project Name Proposed Wind Energy Facilities				
Survey Date 2019-04-19				
Biologist(s) Diana Saucedo, Lindsay Willrick				
Survey Area	2			
Survey Pass	6			

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:00:00	71	0	0	3	clear	
End	12:00:00	85	0	10	3	clear	

BUTTERFLY LIST SPECIES (COUNT)					
Becker's white (2)	common sootywing (4)	Pacific sara orangetip (11)			
Behr's metalmark (95)	dainty sulphur (10)	painted lady (23)			
blue-gray gnatcatcher (1+)	desert pearly marble (5)				
checkered white (12)	orange sulphur (11)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)						
acorn woodpecker (1+)	common raven (1+)	northern flicker (1+)				
ash-throated flycatcher (1+)	dark-eyed junco (1+)	orange-crowned warbler (1+)				
Bewick's wren (1+)	desert cottontail (1+)	red-tailed hawk (1+)				
black-throated sparrow (1+)	European starling (1+)	spotted towhee (1+)				
California ground squirrel (1+)	granite spiny lizard (1+)	Steller's jay (1+)				
California quail (1+)	greater roadrunner (1+)	warbling vireo (1+)				
California scrub-jay (1+)	Hammond's flycatcher (1+)	western fence lizard (1+)				
California towhee (1+)	ladder-backed woodpecker (1+)	wild turkey (1+)				
chipping sparrow (1+)	mourning dove (1+)	wrentit (1+)				
common poorwill (1+)	Nashville warbler (1+)					

INCIDENTAL PLANT LIST					
Ceanothus palmeri Eriophyllum wallacei Sisymbrium altissimum					
Cryptantha micrantha	Layia platyglossa	Caulanthus simulans			



INCIDENTAL PLANT LIST					
Descurainia pinnata Leptosiphon lemmonii Geraea viscida					
Descurainia sophia	Platystemon californicus	Linanthus bellus			



GENERAL SURVEY INFORMATION				
Project Name Proposed Wind Energy Facilities				
Survey Date	2019-04-24			
Biologist(s) Diana Saucedo, Erik LaCoste				
Survey Area	2			
Survey Pass	7			

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:00:00	75	75	0	2	clear	
End	11:15:00	80	84	0	6	clear	

BUTTERFLY LIST SPECIES (COUNT)					
Acmon blue (4)	Edward's blue (1)	Pacific sara orangetip (13)			
Behr's metalmark (66)	funereal duskywing (2)	painted lady (18)			
checkered white (8)	gray hairstreak (1)	pale swallowtail (3)			
dainty sulphur (5)	Harford's sulphur (3)				
desert pearly marble (6)	orange sulphur (1)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
(none)					

INCIDENTAL PLANT LIST			
Ceanothus leucodermis	Ericameria sp	Phacelia	
Ceanothus perplexans	Erodium cicutarium	Plagiobotrys sp	
Chaenactis sp	Lasthenia gracilis	Salvia columbariae	
Cryptantha micrantha	Layia platyglossa	Tropidocarpum gracile	
Delphinium	Lupinus concinnus	Linanthus bellus	
Descurainia pinnata	Malacothrix glabrata		
Descurainia sophia	Pectocarya recurvata		



GENERAL SURVEY INFORMATION			
Project Name	Proposed Wind Energy Facilities		
Survey Date	2019-04-24		
Biologist(s)	Diana Saucedo, Erik LaCoste		
Survey Area	1		
Survey Pass	7		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:00:00	75	75	0	2	clear	
End	11:15:00	80	84	0	6	clear	

	BUTTERFLY LIST SPECIES (COUNT)			
Acmon blue (4)	Edward's blue (1)	Pacific sara orangetip (13)		
Behr's metalmark (66)	funereal duskywing (2)	painted lady (18)		
checkered white (8)	gray hairstreak (1)	pale swallowtail (3)		
dainty sulphur (5)	Harford's sulphur (3)			
desert pearly marble (6)	orange sulphur (1)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)			
(none)			

INCIDENTAL PLANT LIST			
Ceanothus leucodermis	Ericameria sp	Phacelia	
Ceanothus perplexans	Erodium cicutarium	Plagiobotrys sp	
Chaenactis sp	Lasthenia gracilis	Salvia columbariae	
Cryptantha micrantha	Layia platyglossa	Tropidocarpum gracile	
Delphinium	Lupinus concinnus	Linanthus bellus	
Descurainia pinnata	Malacothrix glabrata		
Descurainia sophia	Pectocarya recurvata		



GENERAL SURVEY INFORMATION		
Project Name	Proposed Wind Energy Facilities	
Survey Date	2019-05-09	
Biologist(s)	Lindsay Willrick	
Survey Area	2	
Survey Pass	9	

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	10:45:00	70	0	70	13	clear	
End	17:15:00	72	0	50	6	clear	

BUTTERFLY LIST SPECIES (COUNT)				
San Diegan tiger whiptail (1+)	Bernardino square-spotted blue (1)	gray hairstreak (2)		
Acmon blue (3)	checkered white (13)	Harford's sulphur (14)		
Becker's white (2)	dainty sulphur (2)	painted lady (4)		
Behr's metalmark (35)	Edward's blue (7)	western bluebird (1+)		

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
Costa's hummingbird (1+)	California thrasher (1+)	mourning dove (1+)		
oak titmouse (1+)	chipping sparrow (1+)	northern flicker (1+)		
yellow warbler (1+)	common side-blotched lizard (1+)	red-tailed hawk (1+)		
acorn woodpecker (1+)	cougar (1+)	Say's phoebe (1+)		
ash-throated flycatcher (1+)	coyote (1+)	Scott's oriole (1+)		
black-chinned hummingbird (1+)	desert cottontail (1+)	spotted towhee (1+)		
black-throated sparrow (1+)	granite spiny lizard (1+)	turkey vulture (1+)		
bushtit (1+)	ladder-backed woodpecker (1+)	western wood-pewee (1+)		
California quail (1+)	long-nosed leopard lizard (1+)	white-throated swift (1+)		
California scrub-jay (1+)	Mountain Quail (1+)	wrentit (1+)		

INCIDENTAL PLANT LIST				
Acmispon strigosus	Eriophyllum wallacei	Navar.etia hamata		
Astragalus didymocarpus Erodium cicutarium Pectocarya linearis				



INCIDENTAL PLANT LIST			
Chorizanthe fimbriata	Euphorbia albomarginata	Pectocarya setosa	
Cryptantha micrantha	Heliotropium curassavicum	Salvia columbariae	
Dichelostemma capitatum	Lasthenia gracilis	Sisymbrium altissimum	
Ericameria pinifolia	Leptosiphon lemmonii	Geraea viscida	
Eriogonum fasciculatum	Lupinus bicolor	Linanthus bellus	



GENERAL SURVEY INFORMATION				
Project Name	Proposed Wind Energy Facilities			
Survey Date	2019-03-17			
Biologist(s)	Garrett Huffman			
Survey Area	3			
Survey Pass	1			

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:00:00	61	64	10	8	clear	
End	16:00:00	73	75	10	10	clear	

BUTTERFLY LIST SPECIES (COUNT)					
California tortoiseshell (5)	funereal duskywing (3)	painted lady (350)			
checkered white (2)	orange sulphur (1)				
dainty sulphur (2)	Pacific sara orangetip (50)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
(none)					

INCIDENTAL PLANT LIST					
Camissoniopsis pallida	Erodium ssp./em>	Ribes quercetorum			
Cercocarpus betuloides	Plagiobothrys spp	Ziziphus parryi			



GENERAL SURVEY INFORMATION				
Project Name	Proposed Wind Energy Facilities			
Survey Date	2019-03-22			
Biologist(s)	Callie Amoaku, Patricia Schuyler			
Survey Area	3			
Survey Pass	2			

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	10:22:00	56.3	60.1	10	1	clear	
End	14:30:00	68	70	20	2		

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (7)	California tortoiseshell (61)	Pacific sara orangetip (53)			
bramble hairstreak (4)	dainty sulphur (16)	painted lady (94)			
brown elfin (1)	desert pearly marble (5)	western pygmy-blue (2)			
California dogface (2)	monarch (3)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
common raven (1+)	spotted towhee (1+)	white-crowned sparrow (1+)			
dark-eyed junco (1+) western fence lizard (1+) White-lined sphyx moth (1)					

INCIDENTAL PLANT LIST						
Amsinckia menziesii	Descurainia pinnata	Plagiobothrys sp				
Boechera californica	Erodium cicutarium	Caulanthus simulans				
Camissoniopsis pallida	Lasthenia gracilis					
Cryptantha sp	Lomatium dasycarpum					



GENERAL SURVEY INFORMATION				
Project Name	Proposed Wind Energy Facilities			
Survey Date	2019-03-29			
Biologist(s)	Diana Saucedo, Erik LaCoste, Lindsay Willrick			
Survey Area	3			
Survey Pass	3			

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	14:20:00	72	74	10	4	clear	High haze
End	16:40:00	67	70	10	4	clear	

BUTTERFLY LIST SPECIES (COUNT)					
Becker's white (6)	dainty sulphur (2)	Pacific sara orangetip (13)			
Behr's metalmark (1+)	desert orangetip (9)	painted lady (120)			
California tortoiseshell (11)	desert pearly marble (30)				
checkered white (3)	funereal duskywing (6)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
Common sootywing (11)				

INCIDENTAL PLANT LIST					
Boechera sp	Descurainia sophia	Prunus ilicifolia			
Ceanothus perplexans	Eriophyllum wallacei	Viola spp			
Coreopsis tinctoria	Phacelia campanularia	Caulanthus simulans			
Descurainia pinnata	Platystemon californicus	Linanthus bellus			



GENERAL SURVEY INFORMATION				
Project Name	Proposed Wind Energy Facilities			
Survey Date	2019-03-29			
Biologist(s)	Diana Saucedo, Erik LaCoste, Lindsay Willrick			
Survey Area	3			
Survey Pass	3			

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	14:20:00	72	74	10	4	clear	High haze
End	16:40:00	67	70	10	4	clear	

BUTTERFLY LIST SPECIES (COUNT)					
Becker's white (5)	dainty sulphur (1)	Pacific sara orangetip (6)			
Behr's metalmark (1+)	desert orangetip (4)	painted lady (85)			
California tortoiseshell (6)	desert pearly marble (28)				
checkered white (1)	funereal duskywing (6)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
Common sootywing (6)				

INCIDENTAL PLANT LIST				
(none)				



GENERAL SURVEY INFORMATION				
Project Name	Proposed Wind Energy Facilities			
Survey Date	2019-04-10			
Biologist(s)	Jeffrey Priest			
Survey Area	3			
Survey Pass	6			

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:00:00	60	65	0	5	clear	
Mid day	12:48:00	68	70	0	5	clear	
End	15:46:00	72	72	0	5	clear	

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (12)	Pacific sara orangetip (12)	tiger whiptail (1+)			
checkered white (18)	painted lady (12)	western pygmy-blue (2)			
funereal duskywing (11)	spring white (1)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)						
acorn woodpecker (1+)	coyote (1+)	northern flicker (1+)				
Bewick's wren (1+)	granite spiny lizard (1+)	red-tailed hawk (1+)				
brush rabbit (1+)	greater roadrunner (1+)	spotted towhee (1+)				
California quail (1+)	house finch (1+)	turkey vulture (1+)				
California scrub-jay (1+)	K-rat sp. (tail-drags/prints sign) (1+)	white-crowned sparrow (1+)				
California thrasher (1+)	lesser goldfinch (1+)	wrentit (1+)				
common raven (1+)	mourning dove (1+)					
common side-blotched lizard (1+)	mule deer (1+)					

	INCIDENTAL PLANT LIST	
(none)		



GENERAL SURVEY INFORMATION		
Project Name	Proposed Wind Energy Facilities	
Survey Date	2019-04-14	
Biologist(s)	Antonette Gutierrez, Victor Novik	
Survey Area	3	
Survey Pass	6null	

			SURVE	Y CONDIT	IONS		
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	14:00:00	80	80	40	12	patchy	
End	17:40:00	72	72	20	0	patchy	

	BUTTERFLY LIST SPECIES (COUNT)	
Behr's metalmark (1)	Edward's blue (1)	painted lady (1)
brown elfin (1)	great purple hairstreak (1+)	spring white (1)
checkered white (1)	Pacific sara orangetip (1)	

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)		
(none)		

INCIDENTAL PLANT LIST			
Acmispon strigosus	Ericameria brachylepis	Malacothrix californica	
Amsinckia intermedia	Erodium cicutarium	Oenothera californica	
Anisocoma acaulis	Gilia diegensis	Pectocarya peninsularis	
Castilleja subinclusa ssp. subinclusa	Lasthenia glabrata	Phacelia distans	
Ceanothus perplexans	Leptosiphon lemmonii	Plagiobothrys bracteatus	
Descurainia pinnata	Logfia filaginoides	Platystemon californicus	
Emmenanthe penduliflora	Lupinus concinnus	Sisymbrium irio	



GENERAL SURVEY INFORMATION		
Project Name	Proposed Wind Energy Facilities	
Survey Date	2019-04-19	
Biologist(s)	Diana Saucedo, Lindsay Willrick	
Survey Area	3	
Survey Pass	6	

			SURVE	CONDIT	IONS		
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	12:00:00	85	87	10	3	clear	
End	15:30:00	84	86.5	0	11	clear	

BUTTERFLY LIST SPECIES (COUNT)			
Becker's white (3)	desert pearly marble (9)	painted lady (23)	
Behr's metalmark (50)	Edward's blue (2)	pale swallowtail (2)	
bramble hairstreak (1)	funereal duskywing (11)	queen (1)	
checkered white (10)	orange sulphur (3)		
dainty sulphur (12)	Pacific sara orangetip (4)		

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)		
(none)		

INCIDENTAL PLANT LIST			
Boechera californica	Erodium cicutarium	Platystemon californicus	
Camissoniopsis bistorta	Lasthenia gracilis	Salvia columbariae	
Ceanothus leucodermis	Layia platyglossa	Tropidocarpum gracile	
Cryptantha micrantha	Lomatium dasycarpum	Geraea viscida	
Descurainia pinnata	Lupinus concinnus	Linanthus bellus	
Descurainia sophia	Malacothrix glabrata		



GENERAL SURVEY INFORMATION		
Project Name	Proposed Wind Energy Facilities	
Survey Date	2019-04-25	
Biologist(s)	Callie Amoaku, Erin Bergman, Patricia Schuyler	
Survey Area	3	
Survey Pass	7	

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:14:00	68	70	10	2	clear	
Temp check	13:31:00	91	96	0	3	clear	

BUTTERFLY LIST SPECIES (COUNT)					
Acmon blue (10)	Edward's blue (5)	Pacific sara orangetip (29)			
Behr's metalmark (188)	Lady species (1+)	painted lady (22)			
dainty sulphur (16)	orange sulphur (7)	pale swallowtail (9)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
California towhee (1+)					

INCIDENTAL PLANT LIST					
Acmispon strigosus	Ericameria linearifolia	Leptosiphon lemmonii			
Anisocoma acaulis	Eriophyllum wallacei	Leptosiphon parviflorus			
Calyptridium monandrum	Erodium cicutarium	Nama demissa			
Castilleja foliolosa	Galium andrewsii	Nama demissa var. demissa			
Ceanothus leucodermis	Gilia angelensis	Pectocarya setosa			
Chaenactis glabriuscula	Gilia capitata	Platystemon californicus			
Collinsia concolor	Gilia diegensis	Salvia columbariae			
Cryptantha intermedia var. intermedia	Lasthenia gracilis	Geraea viscida			
Cryptantha micrantha	Layia glandulosa				



GENERAL SURVEY INFORMATION					
Project Name Proposed Wind Energy Facilities					
Survey Date	2019-05-06				
Biologist(s)	Erin Bergman				
Survey Area	3				
Survey Pass	10				

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:03:00	49	53	100	2	overcast	
Temp check	09:11:00	51	55	100	3	overcast	
Temp check	10:09:00	53	64	100	2	overcast	Too cold too cloudy
End	10:55:00	52	66	100	4	drizzle	Start to rain — headed back to office

BUTTERFLY LIST SPECIES (COUNT)				
(none)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
(none)					

INCIDENTAL PLANT LIST					
(none)					



GENERAL SURVEY INFORMATION					
Project Name Proposed Wind Energy Facilities					
Survey Date	2019-05-03				
Biologist(s)	Diana Saucedo, Erik LaCoste, Lindsay Willrick				
Survey Area	3				
Survey Pass	9				

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:00:00	65	65	0	4	clear	
End	14:30:00	78	84	0	9	clear	

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (70)	gray hairstreak (1)	painted lady (4)			
checkered white (23)	marine blue (5)	pale swallowtail (1)			
dainty sulphur (12)	orange sulphur (3)	Propertius duskywing (1)			
funereal duskywing (2)	Pacific sara orangetip (17)	western tailed-blue (1)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
(none)				

INCIDENTAL PLANT LIST				
Amsinckia menziesii	Erodium cicutarium	Penstemon clevelandii		
Anisocoma acaulis	Eulobus californicus	Plagiobothrys sp.		
Antirrhinum coulterianum	Gilia capitata	Platystemon californicus		
Delphinium parishii	Lasthenia glabrata	Salvia columbariae		
Descurainia sophia	Layia glandulosa	Senecio californicus		
Dichelostemma capitatum	Leptosiphon lemmonii	Uropappus lindleyi		
Ericameria linearifolia	Oenothera californica	Geraea viscida		
Eriodictyon trichocalyx	Penstemon centranthifolius	Linanthus bellus		



GENERAL SURVEY INFORMATION		
Project Name Proposed Wind Energy Facilities		
Survey Date	2019-05-10	
Biologist(s)	Diana Saucedo	
Survey Area	3	
Survey Pass	9	

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	11:00:00	70	75	70	13	overcast	Clouds breaking
Mid survey check	13:30:00	70	74	50	8	patchy	
End	17:45:00	68	71.4	40	6	patchy	

BUTTERFLY LIST SPECIES (COUNT)				
Behr's metalmark (14)	gray hairstreak (2)	painted lady (7)		
checkered white (17)	marine blue (1)	Propertius duskywing (1)		
Edward's blue (1)	orange sulphur (1)			
funereal duskywing (1)	Pacific sara orangetip (2)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)			
(none)			

INCIDENTAL PLANT LIST					
Antirrhinum coulterianum	Ericameria pinifolia	Layia glandulosa			
Chaenactis sp	Eriodyction sp	Leptosiphon lemmonii			
Collinsia heterophylla	Eriophyllum confertiflorum var. confertiflorum	Leptosiphon parviflorus			
Cryptantha micrantha	Eriophyllum wallacei	Lupinus concinnus			
Cryptantha sp	Gilia angelensis	Malacothrix glabrata			
Descurainia pinnata	Lasthenia gracilis	Solanum parishii			



GENERAL SURVEY INFORMATION		
Project Name	Proposed Wind Energy Facilities	
Survey Date	2019-03-16	
Biologist(s)	Victor Novik	
Survey Area	4	
Survey Pass	1	

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	10:00:00	58	60	0	17	clear	Gusts to 18
End	11:15:00	59	61	0	12	clear	

	BUTTERFLY LIST SPECIES (COUNT)		
painted lady (427)	Saras orangetip (1)		

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)			
(none)			

INCIDENTAL PLANT LIST					
Arctostaphylus sp.	Descurainia pinnata	Plagiobothrys sp.			
Cryptantha sp. Erodium cicutarium					



GENERAL SURVEY INFORMATION			
Project Name	Proposed Wind Energy Facilities		
Survey Date	2019-03-15		
Biologist(s)	Victor Novik		
Survey Area	4		
Survey Pass	1		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	11:15:00	57	60	40	14		
End	17:00:00	57	60	30	8		

	BUTTERFLY LIST SPECIES (COUNT)				
desert orangetip (1)	painted lady (99)	Sara's orangetip (11)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
(none)				

INCIDENTAL PLANT LIST					
Arctostaphylos sp.	Lasthenia californica	Tauschia arguta			
Descurainia pinnata	Plagiobothrys sp.				
Erodium cicutarium	Senecio californicus				



GENERAL SURVEY INFORMATION			
Project Name	Proposed Wind Energy Facilities		
Survey Date	2019-03-24		
Biologist(s)	Diana Saucedo, Victor Novik		
Survey Area	4		
Survey Pass	2		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:00:00	60	62	0	4	clear	
End	13:00:00	67	72	30	4	patchy	High haze

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (1)	dainty sulphur (2)	painted lady (102)			
bramble hairstreak (1)	desert orangetip (8)	Sara orange-tip (15)			
brown elfin (1)	funereal duskywing (3)	spring white (10)			
checkered white (3)	Harford's sulphur (1)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
(none)					

INCIDENTAL PLANT LIST					
Amsinckia menziesii	Erodium cicutarium	Sisymbrium irio			
Arctostaphylos spp	Lasthenia californica	Tropidocarpum gracile			
Camissoniopsis bistorta	Lomatium dasycarpum				
Cryptantha spp	Ribes quercetorum				



GENERAL SURVEY INFORMATION			
Project Name	Proposed Wind Energy Facilities		
Survey Date	2019-03-24		
Biologist(s)	Diana Saucedo, Victor Novik		
Survey Area	4		
Survey Pass	2		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:15:00	60	60	0	7	clear	
End	13:00:00	69	72	30	4	clear	

	BUTTERFLY LIST SPECIES (COUNT)				
bramble hairstreak (1)	Pacific sara orangetip (18)	Spring white (8)			
dainty sulphur (4)	painted lady (500)	Unidentified sulphur (1)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
White butterfly unidentified (5)				

INCIDENTAL PLANT LIST					
Arabis sp.	Descurainia pinnata	Ribes quercetorum			
Camisonia sp.	Erodium cicutarium	Sanicula arguta			
Ceanothus greggi	Lasthenia californica	Senicio sp.			
Cryptantha sp.	Plagiobothryus sp.				



GENERAL SURVEY INFORMATION				
Project Name	Proposed Wind Energy Facilities			
Survey Date	2019-03-30			
Biologist(s)	Antonette Gutierrez, Victor Novik			
Survey Area	4			
Survey Pass	3null			

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:15:00	62	60	0	5	clear	
End	13:10:00	70	70	0	6	clear	

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (1+)	dainty sulphur (1+)	west coast lady (1+)			
blue-gray gnatcatcher (1+)	desert pearly marble (1+)	western bluebird (1+)			
bramble hairstreak (1+)	Pacific sara orangetip (1+)	white sp (1+)			
brown elfin (1+)	painted lady (1+)				
checkered white (1+)	Propertius duskywing (1+)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)						
black-chinned sparrow (1+)	southern Pacific rattlesnake (1+)					
Bewick's wren (1+)	common raven (1+)	spotted towhee (1+)				
California ground squirrel (1+)	desert cottontail (1+)	vanessa sp (1+)				
California quail (1+)	greater roadrunner (1+)	wrentit (1+)				
California scrub-jay (1+)	ladder-backed woodpecker (1+)					
California thrasher (1+)	mule deer (1+)					

INCIDENTAL PLANT LIST					
Amsinckia intermedia	Gilia diegensis	Platystemon californicus			
Boechera arcuata	Hypochaeris glabra	Salvia columbariae			
Camissoniopsis micrantha	Lasthenia glaberrima	Sanicula arguta			
Ericameria linearifolia	Leptosyne californica	Tauschia arguta			
Erodium cicutarium	Lomatium dasycarpum	Yucca schidigera			

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GENERAL SURVEY INFORMATION				
Project Name	Proposed Wind Energy Facilities			
Survey Date	2019-04-08			
Biologist(s)	Diana Saucedo, Erik LaCoste			
Survey Area	4			
Survey Pass	4, Round 4 make up day			

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	12:00:00	82	83	20	4	patchy	
End	15:20:00	89	91	20	4	patchy	

	BUTTERFLY LIST SPECIES (COUNT)				
Becker's white (1)	checkered white (15)	marine blue (1)			
Behr's metalmark (63)	dainty sulphur (1)	orange sulphur (4)			
bramble hairstreak (4)	desert pearly marble (9)	Pacific sara orangetip (12)			
California tortoiseshell (7)	funereal duskywing (2)	painted lady (20)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
Sootywing (2)				

INCIDENTAL PLANT LIST			
Acmispon strigosus	Eriophyllum wallacei	Lupinus concinnus	
Amsinckia menziesii	Gilia angelensis	Malacothrix californica	
Boechera pulchra	Gilia diegensis	Mentzelia veatchiana	
Ceanothus perplexans	Lasthenia gracilis	Plagiobothrys sp.	
Descurainia pinnata	Layia glandulosa	Linanthus bellus	
Descurainia sophia	Leptosyne californica		



GENERAL SURVEY INFORMATION		
Project Name	Proposed Wind Energy Facilities	
Survey Date	2019-04-05	
Biologist(s)	Diana Saucedo, Lindsay Willrick	
Survey Area	4	
Survey Pass	4	

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	11:30:00	64	0	90	11	overcast	
End	12:00:00	63	0	90	10	drizzle	

	BUTTERFLY LIST SPECIES (COUNT)	
(none)		

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)		
(none)		

INCIDENTAL PLANT LIST		
(none)		



GENERAL SURVEY INFORMATION		
Project Name	Proposed Wind Energy Facilities	
Survey Date	2019-04-13	
Biologist(s)	Diana Saucedo, Lindsay Willrick	
Survey Area	3	
Survey Pass	5	

			SURVE	CONDIT	IONS		
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	13:00:00	77	79	0	1	clear	
End	16:35:00	74	77	0	1	clear	

	BUTTERFLY LIST SPECIES (COUNT)	
Behr's metalmark (40)	common sootywing (1)	funereal duskywing (2)
bramble hairstreak (1)	dainty sulphur (2)	Harford's sulphur (1)
California tortoiseshell (1)	desert pearly marble (13)	Pacific sara orangetip (3)
checkered white (1)	Edward's blue (3)	painted lady (24)

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)		
Gre (1+)		

INCIDENTAL PLANT LIST			
Cryptantha micrantha	Gilia sp	Lupinus concinnus	
Descurainia pinnata	Lasthenia gracilis	Salvia columbariae	
Descurainia sophia	Layia platyglossa	Linanthus bellus	
Erodium cicutarium	Leptosyne californica		



GENERAL SURVEY INFORMATION		
Project Name	Proposed Wind Energy Facilities	
Survey Date	2019-04-13	
Biologist(s)	Diana Saucedo, Lindsay Willrick	
Survey Area	3	
Survey Pass	5	

SURVEY CONDITIONS								
Status Time Air Ground Cover (%) Wind (mph) Sky Notes								
Start	13:00:00	77	79	0	1	clear		
End	16:35:00	74	77	0	1	clear		

BUTTERFLY LIST SPECIES (COUNT)						
Behr's metalmark (40)	common sootywing (1)	funereal duskywing (2)				
bramble hairstreak (1)	dainty sulphur (2)	Harford's sulphur (1)				
California tortoiseshell (1)	desert pearly marble (13)	Pacific sara orangetip (3)				
checkered white (1)	Edward's blue (3)	painted lady (24)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)						
Gre (1+)						

INCIDENTAL PLANT LIST						
Cryptantha micrantha	Gilia sp	Lupinus concinnus				
Descurainia pinnata	Lasthenia gracilis	Salvia columbariae				
Descurainia sophia	Layia platyglossa	Linanthus bellus				
Erodium cicutarium	Leptosyne californica					



GENERAL SURVEY INFORMATION					
Project Name	Proposed Wind Energy Facilities				
Survey Date	2019-04-19				
Biologist(s)	Antonette Gutierrez				
Survey Area	4				
Survey Pass	6null				

SURVEY CONDITIONS								
Status Time Air Ground Cover (%) Wind (mph) Sky Notes								
Start	09:00:00	68	70	10	0	clear		
End	16:00:00	89	81	10	8	clear		

BUTTERFLY LIST SPECIES (COUNT)						
Behr's metalmark (1)	great purple hairstreak (1)	unidentified blue sp (1)				
checkered white (1)	orange sulphur (1)	unidentified sulphur sp (1)				
dainty sulphur (1)	Pacific sara orangetip (1)	unidentified white sp (1)				
desert pearly marble (1)	painted lady (1)	west coast lady (1)				
Edward's blue (1)	Propertius duskywing (1)					
funereal duskywing (1)	queen (1)					

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)						
unidentified Vanessa sp (1)						

INCIDENTAL PLANT LIST						
Achillea millefolium	Dichelostemma capitatum	Phacelia cicutaria				
Amsinckia intermedia	Emmenanthe penduliflora	Phacelia distans				
Anisocoma acaulis	Ericameria linearifolia	Plagiobothrys sp				
Boechera arcuata	Eriophyllum wallacei	Platystemon californicus				
Camissonia sp	Erodium cicutarium	Salvia columbariae				
Castilleja subinclusa ssp. subinclusa	Gilia diegensis	Yucca schidigera				
Ceanothus leucodermis	Lasthenia glabrata	Linanthus bellus				
cryptantha sp	Leptosiphon lemmonii					



INCIDENTAL PLANT LIST					
Descurainia pinnata ssp. glabra	Lupinus concinnus				



GENERAL SURVEY INFORMATION					
Project Name Proposed Wind Energy Facilities					
Survey Date	2019-04-19				
Biologist(s) Antonette Gutierrez					
Survey Area	4				
Survey Pass	6null				

SURVEY CONDITIONS								
Status Time Air Ground Cover (%) Wind (mph) Sky Notes								
Start	09:00:00	70	68	10	0	clear		
End	16:00:00	89	81	10	8	clear		

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (1+)	Edward's blue (1+)	queen (1+)			
blue sp (1+)	funereal duskywing (1+)	sulphur sp (1+)			
checkered white (1+)	great purple hairstreak (1+)	west coast lady (1+)			
common sootywing (1+)	orange sulphur (1+)	white sp. (1+)			
dainty sulphur (1+)	Pacific sara orangetip (1+)				
desert pearly marble (1+)	painted lady (1+)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
Vanessa sp. (1+)				

INCIDENTAL PLANT LIST				
Acmispon strigosus	Ericameria linearifolia	Lupinus concinnus		
Amsinckia menziesii	Eriophyllum wallacei	Mimulus palmeri		
Anisocoma acaulis	Erodium cicutarium	Phacelia distans		
Boechera californica	Gilia diegensis	Platystemon californicus		
Castilleja subinclusa ssp. subinclusa	Lasthenia glabrata	Salvia columbariae		
Ceanothus perplexans	Layia glandulosa	Yucca schidigera		
Descurainia pinnata ssp. brachycarpa	Leptosyne californica	Linanthus bellus		
Dichelostemma capitatum	Lomatium dasycarpum			



INCIDENTAL PLANT LIST				
Emmenanthe penduliflora	Lomatium mohavense			



GENERAL SURVEY INFORMATION			
Project Name Proposed Wind Energy Facilities			
Survey Date	2019-04-24		
Biologist(s)	Lindsay Willrick		
Survey Area	4		
Survey Pass	7		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:30:00	67	0	0	1	clear	
Midday	11:30:00	73	0		5	clear	
End	15:30:00	84	0	0	8	clear	

BUTTERFLY LIST SPECIES (COUNT)					
San Diegan tiger whiptail (1+)	dainty sulphur (18)	Harford's sulphur (3)			
Behr's metalmark (75)	desert pearly marble (12)	orange sulphur (1)			
blue-gray gnatcatcher (1+)	Edward's blue (12)	Pacific sara orangetip (4)			
checkered white (27)	gray hairstreak (2)	painted lady (17)			
common sootywing (8)	great purple hairstreak (1)	western pygmy-blue (2)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
Costa's hummingbird (1+)	California thrasher (1+)	granite spiny lizard (1+)		
oak titmouse (1+)	California towhee (1+)	mourning dove (1+)		
acorn woodpecker (1+)	chipping sparrow (1+)	northern flicker (1+)		
ash-throated flycatcher (1+)	common raven (1+)	red-tailed hawk (1+)		
black-throated sparrow (1+)	common side-blotched lizard (1+)	spotted towhee (1+)		
bushtit (1+)	coyote (1+)	turkey vulture (1+)		
California ground squirrel (1+)	desert cottontail (1+)	western fence lizard (1+)		
California quail (1+)	Eurasian collared-dove (1+)	wrentit (1+)		
California scrub-jay (1+)	European starling (1+)			

INCIDENTAL PLANT LIST				
Ceanothus perplexans	Leptosiphon lemmonii	Rhus aromatica		



INCIDENTAL PLANT LIST				
Cryptantha micrantha	Leptosyne californica	Salvia columbariae		
Ericameria pinifolia	Lupinus concinnus	Sisymbrium altissimum		
Erodium cicutarium	Malacothrix glabrata	Geraea viscida		
Lasthenia gracilis	Pectocarya setosa	Linanthus bellus		
Layia platyglossa	Platystemon californicus			



GENERAL SURVEY INFORMATION			
Project Name	Proposed Wind Energy Facilities		
Survey Date	2019-05-02		
Biologist(s)	Diana Saucedo, Erik LaCoste		
Survey Area	4		
Survey Pass	9		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
End	15:30:00	77	77	40	7	patchy	

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (63)	funereal duskywing (1)	Pacific sara orangetip (15)			
brown elfin (1)	gray hairstreak (1)	painted lady (4)			
checkered white (10)	Harford's sulphur (2)	pale swallowtail (1)			
dainty sulphur (13)	marine blue (4)	Propertius duskywing (4)			
Edward's blue (1)	orange sulphur (1)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
(none)				

INCIDENTAL PLANT LIST					
Delphinium parishii	Erodium cicutarium	Mentzelia sp.			
Descurainia pinnata ssp. glabra	Gilia diegensis	Plagiobothrys sp.			
Dichelostemma capitatum	Lasthenia glabrata	Salvia columbariae			
Emmenanthe penduliflora	Layia glandulosa	Senecio californicus			
Ericameria paniculata	Leptosiphon lemmonii	Linanthus bellus			



GENERAL SURVEY INFORMATION				
Project Name	Proposed Wind Energy Facilities			
Survey Date	2019-05-12			
Biologist(s)	Antonette Gutierrez			
Survey Area	4			
Survey Pass	9null			

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	10:00:00	70	71	20	0	patchy	
End	17:00:00	78	76	30	7	patchy	

	BUTTERFLY LIST SPECIES (COUNT)				
Acmon blue (1+)	funereal duskywing (1+)	painted lady (1+)			
Behr's metalmark (1+)	gray hairstreak (1+)	Propertius duskywing (1+)			
checkered white (1+)	marine blue (1+)	unidentified blue sp (1+)			
dainty sulphur (1+)	orange sulphur (1+)	unidentified sulphur sp (1+)			
Edward's blue (1+)	Pacific sara orangetip (1+)	unidentified white sp (1+)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
unidentified Vanessa sp (1+)				

INCIDENTAL PLANT LIST					
Adenostoma fasciculatum var. obtusifolium	Dichelostemma capitatum	Mentzelia veatchiana			
Anisocoma acaulis	Emmenanthe penduliflora	Monardella nana			
Astragalus sp	Ericameria linearifolia	Orobanche fasciculata			
Camissonia sp	Eriodictyon trichocalyx	Penstemon spectabilis			
Ceanothus leucodermis	Eriogonum fasciculatum var. foliolosum	Plagiobothrys sp.			
Chaenactis fremontii	Eriophyllum confertiflorum	Prunus ilicifolia ssp. ilicifolia			
Chaenactis glabriuscula	Eriophyllum wallacei	Quercus agrifolia			
Chamaesyce sp	Erodium cicutarium	Salvia columbariae			
Chorizanthe fimbriata	Gilia diegensis	Solanum parishii			



INCIDENTAL PLANT LIST					
Collinsia concolor	Lasthenia glabrata	Tauschia arguta			
Cordylanthus rigidus	Layia glandulosa	Yucca schidigera			
Cryptantha sp	Leptosiphon lemmonii	Geraea viscida			
Delphinium parishii	Leptosyne californica	Linanthus bellus			
Descurainia pinnata ssp. glabra	Lupinus concinnus				



GENERAL SURVEY INFORMATION				
Project Name	Proposed Wind Energy Facilities			
Survey Date	2019-03-17			
Biologist(s)	Diana Saucedo, Victor Novik			
Survey Area	5			
Survey Pass	1			

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:30:00	62	60	0	9	clear	
End	13:45:00	67	68	0	14	clear	

BUTTERFLY LIST SPECIES (COUNT)						
brown elfin (1)	funereal duskywing (3) spring white (1)					
dainty sulphur (2)	Pacific sara orangetip (10)					
desert orangetip (5)	painted lady (100)					

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
(none)				

INCIDENTAL PLANT LIST				
Camissoniopsis bistorta	Pentachaeta aurea	Tropidocarpum gracile		
Erodium cicutarium	Sanicula sp			
Lasthenia gracilis	Sisymbrium irio			



GENERAL SURVEY INFORMATION			
Project Name	Proposed Wind Energy Facilities		
Survey Date	2019-03-17		
Biologist(s)	Diana Saucedo, Victor Novik		
Survey Area	5		
Survey Pass	1		

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:30:00	62	60	0	9	clear	
End	13:45:00	67	68	0	14	clear	

BUTTERFLY LIST SPECIES (COUNT)				
brown elfin (1)	funereal duskywing (3)	spring white (1)		
dainty sulphur (2)	Pacific sara orangetip (10)			
desert orangetip (5)	painted lady (100)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
(none)				

INCIDENTAL PLANT LIST				
Camissoniopsis bistorta	Pentachaeta aurea	Tropidocarpum gracile		
Erodium cicutarium	Sanicula sp			
Lasthenia gracilis	Sisymbrium irio			



GENERAL SURVEY INFORMATION			
Project Name	Proposed Wind Energy Facilities		
Survey Date	2019-03-17		
Biologist(s)	Diana Saucedo, Victor Novik		
Survey Area	5		
Survey Pass	1		

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:30:00	62	60	0	9	clear	
End	13:45:00	67	68	0	14	clear	

BUTTERFLY LIST SPECIES (COUNT)			
brown elfin (1)	funereal duskywing (3)	spring white (1)	
dainty sulphur (2)	Pacific sara orangetip (10)		
desert orangetip (5)	painted lady (4)		

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)			
(none)			

INCIDENTAL PLANT LIST				
(none)				



GENERAL SURVEY INFORMATION			
Project Name	Proposed Wind Energy Facilities		
Survey Date	2019-03-24		
Biologist(s)	Diana Saucedo, Victor Novik		
Survey Area	5		
Survey Pass	2		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	13:00:00	67	72	30	4	patchy	
End	16:30:00	69	72	20	8	patchy	

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (1)	dainty sulphur (3)	painted lady (102)			
bramble hairstreak (1)	desert orangetip (9)	Sara orange-tip (15)			
brown elfin (1)	funereal duskywing (3)	spring white (9)			
checkered white (5)	Harford's sulphur (1)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
(none)				

INCIDENTAL PLANT LIST					
Amsinckia menziesii	Erodium cicutarium	Sisymbrium irio			
Arctostaphylos spp	Lasthenia californica	Tropidocarpum gracile			
Camissoniopsis bistorta	Lomatium dasycarpum				
Cryptantha spp	Ribes quercetorum				



GENERAL SURVEY INFORMATION			
Project Name	Proposed Wind Energy Facilities		
Survey Date	2019-03-24		
Biologist(s)	Diana Saucedo, Victor Novik		
Survey Area	5		
Survey Pass	2		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	13:00:00	69	72	30	4	clear	High haze
End	16:30:00	67	70	20	8	clear	Light haze

BUTTERFLY LIST SPECIES (COUNT)					
California tortoiseshell (1)	funereal duskywing (1)	Unifentified sulphur (1)			
checkered white (7)	Pacific sara orangetip (15)				
dainty sulphur (1)	painted lady (1+)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
Unidentified white (3)				

INCIDENTAL PLANT LIST					
Arabis sp.	Descurainia pinnata	Nuttalianthus canadensis			
Brassica sp.	Erodium cicutarium	Plagiobothryus sp.			
Camisonia sp.	Leptosyne californica				
Cryptantha sp.	Mimulus fremontii				



GENERAL SURVEY INFORMATION			
Project Name	Proposed Wind Energy Facilities		
Survey Date	2019-03-30		
Biologist(s)	Antonette Gutierrez, Victor Novik		
Survey Area	5		
Survey Pass	3		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	13:10:00	70	70	0	12	clear	
End	16:40:00	70	63	0	7	clear	

BUTTERFLY LIST SPECIES (COUNT)				
Behr's metalmark (10)	funereal duskywing (1)	spring white (20)		
California tortoiseshell (4)	Pacific sara orangetip (47)			
checkered white (24)	painted lady (1+)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
(none)				

INCIDENTAL PLANT LIST					
Amsinckia menziesii	Gilia sp.	Mimulus fremontii			
Arabis sp.	Hypochaeris glabra	Plagiobothryus sp.			
Ceanothus greggi	Lasthenia californica	Prunus fremontii			
Cryptantha sp.	Layia glandulosa	Sisymbrium irio			
Descurainia pinnata	Leptosyne californica	Tauschia arguta			
Erodium cicutarium	Lomatium sp.				



GENERAL SURVEY INFORMATION				
Project Name	Proposed Wind Energy Facilities			
Survey Date	2019-04-04			
Biologist(s)	Diana Saucedo, Victor Novik			
Survey Area	5			
Survey Pass	4			

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	10:37:00	59	60.6	30	6	patchy	
End	15:15:00	62	61	10	10	clear	

BUTTERFLY LIST SPECIES (COUNT)					
Becker's white (5)	desert orangetip (7)	painted lady (28)			
Behr's metalmark (27)	desert pearly marble (60)	spring white (2)			
California tortoiseshell (14)	funereal duskywing (6)	Unidentified sulphur (1+)			
common sootywing (3)	Pacific sara orangetip (17)	white checkered-skipper (1)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
(none)				

INCIDENTAL PLANT LIST				
Calandrinia menziesii	Lasthenia gracilis	Mimulus fremontii		
Ceanothus perplexans	Layia glandulosa	Plagiobotrys sp		
Crytantha sp	Leptosyne californica	Platystemon californicus		
Descurainia pinnata	Lomatium dasycarpum ssp. dasycarpum	Sisymbrium irio		
Descurainia sophia	Lupinus hirsutissimus	Tropidocarpum gracile		
Erodium cicutarium	Malacothrix californica	Linanthus bellus		



GENERAL SURVEY INFORMATION				
Project Name	Proposed Wind Energy Facilities			
Survey Date	2019-04-10			
Biologist(s)	Lindsay Willrick, Margie Mullian			
Survey Area	5			
Survey Pass	5			

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:24:00	63	0	0	6		
End	13:02:00	67	0	0	7		

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (26)	common sootywing (4)	gray hairstreak (2)			
bramble hairstreak (3)	dainty sulphur (2)	painted lady (33)			
California tortoiseshell (2)	desert pearly marble (11)				
checkered white (10)	Edward's blue (1)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
(none)				

INCIDENTAL PLANT LIST			
Cordylanthus rigidus	Layia glandulosa	Lupinus concinnus	
Descurainia sophia	Leptosiphon lemmonii	Platystemon californicus	
Erodium botrys	Leptosyne californica	Rhus aromatica	
Lasthenia gracilis	Lomatium dasycarpum ssp. dasycarpum	Linanthus bellus	



GENERAL SURVEY INFORMATION		
Project Name	Proposed Wind Energy Facilities	
Survey Date	2019-04-21	
Biologist(s)	Jeffrey Priest	
Survey Area	5	
Survey Pass	7	

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:00:00	56	66	0	4	clear	
Mid day	12:08:00	68	75	0	8	clear	
End	15:30:00	67	73	0	12	clear	

	BUTTERFLY LIST SPECIES (COUNT)	
Behr's metalmark (20)	orange sulphur (2)	spring white (1)
checkered white (16)	Pacific sara orangetip (11)	western pygmy-blue (3)
desert orangetip (1)	painted lady (10)	
funereal duskywing (2)	queen (1)	

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)			
acorn woodpecker (1+)	California towhee (1+)	mourning dove (1+)	
Bewick's wren (1+)	common raven (1+)	mule deer (1+)	
black-tailed jackrabbit (1+)	common side-blotched lizard (1+)	Neotoma sp. (middens) (1+)	
brush rabbit (1+)	coyote (1+)	northern mockingbird (1+)	
bushtit (1+)	granite spiny lizard (1+)	red-tailed hawk (1+)	
California ground squirrel (1+)	greater roadrunner (1+)	spotted towhee (1+)	
California quail (1+)	hooded oriole (1+)	turkey vulture (1+)	
California scrub-jay (1+)	house finch (1+)	white-crowned sparrow (1+)	
California thrasher (1+)	Merriam's chipmunk (1+)	yellow-rumped warbler (1+)	

INCIDENTAL PLANT LIST		
(none)		



GENERAL SURVEY INFORMATION		
Project Name	Proposed Wind Energy Facilities	
Survey Date	2019-04-25	
Biologist(s)	Erik LaCoste	
Survey Area	5	
Survey Pass	7	

			SURVE	CONDIT	IONS		
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	07:50:00	67	67	0	2	clear	
End	14:20:00	90	93	0	8	clear	

	BUTTERFLY LIST SPECIES (COUNT)	
Behr's metalmark (54)	funereal duskywing (2)	Pacific sara orangetip (25)
checkered white (8)	gray hairstreak (1)	painted lady (18)
dainty sulphur (6)	marine blue (1)	Propertius duskywing (1)
Edward's blue (1)	orange sulphur (5)	

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)		
(none)		

INCIDENTAL PLANT LIST			
Amsinckia menziesii	Ericameria linearifolia	Lasthenia glabrata	
Collinsia concolor	Erodium sp.	Leptosiphon lemmonii	
Descurainia pinnata	Eulobus californicus	Plagiobothrys sp.	
Dichelostemma capitatum	Gilia diegensis	Salvia columbariae	



GENERAL SURVEY INFORMATION		
Project Name	Proposed Wind Energy Facilities	
Survey Date	2019-05-02	
Biologist(s)	Diana Saucedo, Erik LaCoste	
Survey Area	5	
Survey Pass	9	

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:30:00	70	70	90	1	overcast	
End	12:00:00	73	74	60	2	patchy	

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (70)	funereal duskywing (1)	Pacific sara orangetip (18)			
checkered white (16)	gray hairstreak (3)	painted lady (4)			
dainty sulphur (1)	marine blue (14)				
Edward's blue (1)	mourning cloak (1)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
(none)				

INCIDENTAL PLANT LIST					
Castilleja subinclusa	Eriophyllum confertiflorum	Plagiobothrys sp.			
Ceanothus leucodermis	Erodium cicutarium	Salvia columbariae			
Descurainia pinnata	Gilia diegensis	Uropappus lindleyi			
Dichelostemma capitatum	Lasthenia gracilis	Geraea viscida			
Emmenanthe penduliflora	Layia glandulosa	Linanthus bellus			
Ericameria linearifolia	meria linearifolia Leptosiphon lemmonii				
Eriodictyon trichocalyx	Penstemon centranthifolius				



GENERAL SURVEY INFORMATION					
Project Name Proposed Wind Energy Facilities					
Survey Date	2019-05-09				
Biologist(s)	Antonette Gutierrez, Diana Saucedonull				
Survey Area	5				
Survey Pass	9null				

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	11:15:00	61	63	30	10	patchy	
End	15:30:00	63	74	10	11	patchy	

BUTTERFLY LIST SPECIES (COUNT)						
Becker's white (1+)	funereal duskywing (1+)	painted lady (1+)				
Behr's metalmark (1+)	gray hairstreak (1+)	Propertius duskywing (1+)				
checkered white (1+)	marine blue (1+)	western tailed-blue (1+)				
dainty sulphur (1+)	monarch (1+)					
desert pearly marble (1+)	Pacific sara orangetip (1+)					

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
unidentified Vanessa Species (1+)				

INCIDENTAL PLANT LIST					
(none)					



GENERAL SURVEY INFORMATION					
Project Name	Proposed Wind Energy Facilities				
Survey Date	2019-03-18				
Biologist(s)	Erin Bergman				
Survey Area	6				
Survey Pass	1				

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:51:00	70.2	71.5	0	2	clear	
End	16:44:00	77	78	0	3	clear	Really nice day

BUTTERFLY LIST SPECIES (COUNT)					
desert orangetip (1)	Harford's sulphur (1)	Pacific sara orangetip (19)			
desert pearly marble (6)	Lady species (15)	painted lady (52)			
great purple hairstreak (1)	Orangetip species (1+)	west coast lady (3)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
California quail (1+) chipping sparrow (1+) European starling (1+)				
California scrub-jay (1+)	common raven (1+)	western meadowlark (1+)		

INCIDENTAL PLANT LIST			
Amsinckia menziesii	Lasthenia gracilis		
Cryptantha micrantha	Sisymbrium altissimum		



GENERAL SURVEY INFORMATION			
Project Name	Proposed Wind Energy Facilities		
Survey Date	2019-03-22		
Biologist(s)	Erin Bergman		
Survey Area	6		
Survey Pass	2		

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:41:00	61.4	66.5	0	2	clear	
End	16:50:00	67	70	20	3	clear	

BUTTERFLY LIST SPECIES (COUNT)				
brown elfin (2)	desert pearly marble (14)	Pacific sara orangetip (21)		
California tortoiseshell (12)	gray hairstreak (1)	painted lady (82)		
dainty sulphur (3)	Lady species (5)	west coast lady (2)		

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
oak titmouse (1+)	California quail (1+) European starling (1+)			
San Diego black-tailed jackrabbit (1+)	California scrub-jay (1+)	red-tailed hawk (1+)		
acorn woodpecker (1+)	California thrasher (1+)	turkey vulture (1+)		
American robin (1+)	common raven (1+)	wild turkey (1+)		

INCIDENTAL PLANT LIST			
Amsinckia menziesii	Erodium cicutarium		
Descurainia pinnata	Nemophila menziesii		



GENERAL SURVEY INFORMATION		
Project Name Proposed Wind Energy Facilities		
Survey Date	2019-03-29	
Biologist(s) Callie Amoaku, Erin Bergman, Patricia Schuyler		
Survey Area	6	
Survey Pass	3	

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:21:00	60	60	0	2	clear	
End	12:04:00	69	65.7	0	3	clear	

BUTTERFLY LIST SPECIES (COUNT)				
Behr's metalmark (3)	desert pearly marble (7)	painted lady (96)		
blue-gray gnatcatcher (1+)	funereal duskywing (3)	White species (4)		
bramble hairstreak (3)	Pacific sara orangetip (6)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
oak titmouse (1+)	common side-blotched lizard (1+)	red-tailed hawk (1+)		
American kestrel (1+)	mule deer (1+)	turkey vulture (1+)		
California scrub-jay (1+)	northern flicker (1+)	western kingbird (1+)		
common raven (1+)	northern mockingbird (1+)	white-crowned sparrow (1+)		

INCIDENTAL PLANT LIST				
Acmispon heermannii	Erodium cicutarium	Phacelia distans		
Acmispon strigosus	Eschscholzia californica	Phacelia imbricata		
Amsinckia menziesii	Lasthenia gracilis	Salvia columbariae		
Anisocoma acaulis	Lomatium dasycarpum	Taraxacum officinale		
Calyptridium monandrum	Lupinus concinnus	Tropidocarpum gracile		
Cryptantha micrantha	Marah macrocarpa	Caulanthus simulans		
Descurainia pinnata	Nemophila menziesii	Streptanthus campestris		



GENERAL SURVEY INFORMATION			
Project Name	Proposed Wind Energy Facilities		
Survey Date	2019-04-04		
Biologist(s)	Callie Amoaku, Patricia Schuyler		
Survey Area	6		
Survey Pass	4		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	10:40:00	52	60	20	7	clear	
End	13:44:00	61	62.4	0	5	clear	Gusts at 8-12 but not sustained.

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (23)	dainty sulphur (1)	painted lady (41)			
blue-gray gnatcatcher (1+)	desert orangetip (1)	Propertius duskywing (2)			
bramble hairstreak (4)	desert pearly marble (32)				
cabbage white (2)	funereal duskywing (1)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
oak titmouse (1+)	California quail (1+)	Nuttall's woodpecker (1+)			
acorn woodpecker (1+)	California scrub-jay (1+)	red-tailed hawk (1+)			
American kestrel (1+)	California towhee (1+)	turkey vulture (1+)			
ash-throated flycatcher (1+)	common raven (1+)	white-breasted nuthatch (1+)			
Bewick's wren (1+)	European starling (1+)				
bushtit (1+)	northern mockingbird (1+)				

INCIDENTAL PLANT LIST				
Boechera pulchra	Ericameria linearifolia	Layia glandulosa		



GENERAL SURVEY INFORMATION			
Project Name	Proposed Wind Energy Facilities		
Survey Date	2019-04-17		
Biologist(s)	Callie Amoaku, Patricia Schuyler		
Survey Area	6		
Survey Pass	6		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	13:25:00	75	80	0	4		
End	16:29:00	76	79	0	3	clear	

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (90)	Edward's blue (1)	painted lady (15)			
cabbage white (13)	Gabb's checkerspot (1)	Propertius duskywing (2)			
desert orangetip (3)	Harford's sulphur (1)	Sulphur sp (2)			
desert pearly marble (11)	Pacific sara orangetip (1)	western pygmy-blue (1)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
(none)					

INCIDENTAL PLANT LIST					
(none)					



GENERAL SURVEY INFORMATION			
Project Name	Proposed Wind Energy Facilities		
Survey Date	2019-04-22		
Biologist(s)	Erin Bergman		
Survey Area	6		
Survey Pass	7		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:54:00	70	76	30	3	clear	
End	15:57:00	69	72	40	2	patchy	

BUTTERFLY LIST SPECIES (COUNT)		
Acmon blue (1)	great purple hairstreak (4)	Pacific sara orangetip (44)
Behr's metalmark (104)	immaculate bramble hairstreak (6)	painted lady (33)
desert pearly marble (17)	Lady species (1+)	southern blue (14)
funereal duskywing (7)	mournful duskywing (1)	west coast lady (10)

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)			
oak titmouse (1+)	chipping sparrow (1+)	red-tailed hawk (1+)	
acorn woodpecker (1)	common raven (1+)	western kingbird (1+)	
barn owl (1+)	European starling (1+)	western meadowlark (1)	
black-tailed jackrabbit (1+)	mourning dove (1+)	western rattlesnake (1+)	
California quail (1+)	northern flicker (1+)		
California scrub-jay (1+)	phainopepla (1+)		

INCIDENTAL PLANT LIST				
Amsinckia intermedia	Eschscholzia californica	Malacothrix glabrata		
Arctostaphylos pungens	Euphorbia albomarginata	Oenothera californica ssp. avita		
Boechera pulchra	Gilia angelensis	Pectocarya setosa		
Calyptridium monandrum	Gilia diegensis	Penstemon centranthifolius		
Ceanothus leucodermis	Lasthenia gracilis	Phacelia distans		
Ceanothus perplexans	Layia glandulosa	Plagiobothrys arizonicus		



INCIDENTAL PLANT LIST				
Collinsia concolor	Leptosiphon floribundus ssp. glaber	Salvia columbariae		
Cryptantha intermedia var. intermedia	Leptosiphon lemmonii	Sisymbrium altissimum		
Cryptantha micrantha	Leptosiphon parviflorus	Sisymbrium irio		
Descurainia pinnata	Lomatium dasycarpum ssp. dasycarpum	Uropappus lindleyi		
Ericameria linearifolia	Lupinus bicolor	Linanthus bellus		
Erodium cicutarium	Lupinus concinnus			



GENERAL SURVEY INFORMATION				
Project Name	Proposed Wind Energy Facilities			
Survey Date	2019-05-02			
Biologist(s)	Erin Bergman			
Survey Area	6			
Survey Pass	8			

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
End	04:11:00	70	75	20	3	patchy	
Start	09:31:00	67	70	40	4	patchy	Sky clear in my area
Temp check	14:38:00	77	84	20	3	clear	

BUTTERFLY LIST SPECIES (COUNT)					
Acmon blue (2)	desert pearly marble (15)	painted lady (21)			
Behr's metalmark (174)	Edward's blue (8)	west coast lady (6)			
checkered white (5)	gray hairstreak (16)	White species (1+)			
common buckeye (2)	Lady species (1+)				
desert orangetip (2)	Pacific sara orangetip (14)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)						
acorn woodpecker (1+) common raven (1+) red-tailed hawk (1+)						
California quail (1+)	European starling (1+)	Townsend's warbler (1+)				
California scrub-jay (1+)	mourning dove (1+)	warbling vireo (1+)				

INCIDENTAL PLANT LIST					
(none)					



GENERAL SURVEY INFORMATION				
Project Name	Proposed Wind Energy Facilities			
Survey Date	2019-05-08			
Biologist(s)	Erin Bergman			
Survey Area	6			
Survey Pass	10			

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:45:00	50	59	100	4	overcast	Can't start too cold and too cloudy
End	09:25:00	57	61	100	3	overcast	Too cold and cloudy
End	10:09:00	58	64	100	3	overcast	Too cold too cloudy going to help others in Jacumba

	BUTTERFLY LIST SPECIES (COUNT)	
(none)		

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
(none)					

INCIDENTAL PLANT LIST					
(none)					



GENERAL SURVEY INFORMATION				
Project Name	Proposed Wind Energy Facilities			
Survey Date	2019-05-13			
Biologist(s)	Erin Bergman			
Survey Area	6			
Survey Pass	10			

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	10:01:00	78	75.2	10	3	clear	
Temp check	13:47:00	81	87	60	3	clear	
Temp check	14:37:00	78	86	50	2	clear	
End	17:02:00	91	86	20	3	clear	

BUTTERFLY LIST SPECIES (COUNT)					
Acmon blue (11)	gray hairstreak (7)	painted lady (42)			
Behr's metalmark (45)	Harford's sulphur (1)	Sulphur species (1+)			
checkered white (22)	Melissa blue (1)	White species (10)			
dainty sulphur (11)	orange sulphur (2)				
funereal duskywing (1)	Pacific sara orangetip (11)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)						
oak titmouse (1+) common raven (1+) mule deer (1)						
California scrub-jay (1+)	hooded oriole (1+)	red-tailed hawk (1+)				
California towhee (1+) mourning dove (1+)						

INCIDENTAL PLANT LIST					
Anisocoma acaulis	Eriastrum eremicum ssp. eremicum	Lupinus concinnus			
Antirrhinum coulterianum	Eriodictyon trichocalyx var. lanatum	Oenothera californica ssp. avita			
Calycoseris parryi	Erodium cicutarium	Pectocarya setosa			
Calyptridium monandrum	Eulobus californicus	Penstemon centranthifolius			
Castilleja applegatei	Euphorbia albomarginata	Rhus aromatica			



INCIDENTAL PLANT LIST					
Chaenactis glabriuscula	haenactis glabriuscula Lasthenia gracilis Uropappus				
Chenopodium californicum	Layia glandulosa	Astragalus douglasii var. perstrictus			
Chorizanthe fimbriata	Leptosiphon lemmonii	Delphinium parishii ssp. subglobosum			
Cryptantha intermedia var. intermedia	Leptosiphon parviflorus	Geraea viscida			
Cryptantha micrantha	Lupinus bicolor				



GENERAL SURVEY INFORMATION			
Project Name Proposed Wind Energy Facilities			
Survey Date	2019-03-19		
Biologist(s)	Antonette Gutierrez, Victor Novik		
Survey Area	7		
Survey Pass	1		

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	12:30:00	72	0	0	2	clear	
End	17:15:00	64	0	10	5	clear	Wind gusts 8-11

	BUTTERFLY LIST SPECIES (COUNT)				
brown elfin (1)	California tortoiseshell (3) Pacific sara orangetip (13)				
California patch (2)	dainty sulphur (7)	painted lady (9)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
Blainville's horned lizard (1+)	northern flicker (1+)				
oak titmouse (1+)	chipping sparrow (1+)	red-tailed hawk (1+)			
acorn woodpecker (1+)	common raven (1+)	western meadowlark (1+)			
American kestrel (1+)	dark-eyed junco (1)	white-crowned sparrow (1+)			
California marble (4)	European starling (1+)	yellow-rumped warbler (1+)			
California quail (1+)	granite spiny lizard (1+)				
California scrub-jay (1+)	mourning dove (1+)				

INCIDENTAL PLANT LIST					
Caulanthus heterophyllus Erodium cicutarium Lomatium dasycarpum					
Cryptantha intermedia	Eschscholzia californica	Pectocarya linearis			
Descurainia pinnata	Lasthenia californica	Tropidocarpum gracile			



GENERAL SURVEY INFORMATION					
Project Name Proposed Wind Energy Facilities					
Survey Date	2019-03-23				
Biologist(s)	Jeffrey Priest				
Survey Area	7				
Survey Pass	2				

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:30:00	60	60	0	7	clear	Less than 5% clouds cover.
Hilltop	12:01:00	66	64	0	14	clear	Wind 8-10 with gusts 10-14. Wind higher on hilltop. Clouds less than 10%.
Mid day	13:16:00	68	70	30	10	patchy	
End	16:30:00	64	66	40	14	patchy	Wind 5-12 with gusts 12-14

BUTTERFLY LIST SPECIES (COUNT)					
desert orangetip (2)	Lady sp. butterfly (fly-by) (101)	painted lady (25)			
funereal duskywing (2)	Pacific sara orangetip (10)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
oak titmouse (1+)	California towhee (1+)	mourning dove (1+)			
acorn woodpecker (1+)	Cassin's kingbird (1+)	mule deer (1+)			
American kestrel (1+)	common raven (1+)	Neotoma sp. (midden) (1+)			
Bewick's wren (1+)	common side-blotched lizard (1+)	northern mockingbird (1+)			
black-tailed jackrabbit (1+)	coyote (1+)	red-tailed hawk (1+)			
black phoebe (1+)	granite spiny lizard (1+)	spotted towhee (1+)			
bushtit (1+)	house finch (1+)	turkey vulture (1+)			
California quail (1+)	K-rat sp. (tail drag sign) (1+)	white-crowned sparrow (1+)			
California scrub-jay (1+)	lesser goldfinch (1+)	wild turkey (1+)			
California thrasher (1+)	Merriam's chipmunk (1+)	wrentit (1+)			

INCIDENTAL PLANT LIST				
Erodium cicutarium				



GENERAL SURVEY INFORMATION			
Project Name Proposed Wind Energy Facilities			
Survey Date	2019-03-29		
Biologist(s)	Callie Amoaku, Erin Bergman, Patricia Schuyler		
Survey Area	7		
Survey Pass	3		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	12:04:00	69	65.7	0	5	clear	
End	14:54:00	75	75.7	20	2	patchy	

BUTTERFLY LIST SPECIES (COUNT)						
San Diegan tiger whiptail (1+)	desert pearly marble (23)	painted lady (761)				
California tortoiseshell (7)	funereal duskywing (5)	Sulphur sp. (1+)				
cloudless sulphur (1)	orange sulphur (1)	White sp. (1+)				
desert orangetip (1)	Pacific sara orangetip (37)					

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)						
Blainville's horned lizard (1+)	red-tailed hawk (1+)					
oak titmouse (1+)	European starling (1+)	turkey vulture (1+)				
San Diego black-tailed jackrabbit (1+)	granite spiny lizard (1+)	western kingbird (1+)				
acorn woodpecker (1+)	mourning dove (1+)	western meadowlark (1+)				
California quail (1+)	mule deer (1+)	wild turkey (1+)				
California scrub-jay (1+)	northern mockingbird (1+)					

INCIDENTAL PLANT LIST					
Acmispon heermannii	Eschscholzia californica	Phacelia distans			
Acmispon strigosus	Lasthenia gracilis	Phacelia imbricata			
Amsinckia menziesii	Leptosiphon floribundus	Plagiobothrys arizonicus			
Anisocoma acaulis	Leptosyne californica	Platystemon californicus			
Arctostaphylos pungens	Lupinus concinnus	Salvia columbariae			



INCIDENTAL PLANT LIST					
Calyptridium monandrum	Marah macrocarpa	Taraxacum officinale			
Cryptantha micrantha	Nama demissa	Tropidocarpum gracile			
Descurainia pinnata	Nemophila menziesii	Caulanthus simulans			
Erodium cicutarium	Pectocarya sp.	Streptanthus campestris			



GENERAL SURVEY INFORMATION				
Project Name	Proposed Wind Energy Facilities			
Survey Date	2019-04-04			
Biologist(s)	Callie Amoaku, Patricia Schuyler			
Survey Area	7			
Survey Pass	4			

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	13:47:00	61	62.4	0	5	clear	
End	17:10:00	58	60	50	6	patchy	

	BUTTERFLY LIST SPECIES (COUNT)			
Behr's metalmark (10)	desert pearly marble (6)	Propertius duskywing (2)		
bramble hairstreak (1)	painted lady (56)	west coast lady (3)		

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
Cooper's hawk (1+)	California scrub-jay (1+)	white-crowned sparrow (1+)		
oak titmouse (1+)	desert cottontail (1+)	white-tailed antelope squirrel (1+)		
San Diego black-tailed jackrabbit (1+)	European starling (1+)	wild turkey (1+)		
California ground squirrel (1+)	red-tailed hawk (1+)			
California quail (1+)	western meadowlark (1+)			

INCIDENTAL PLANT LIST		
Castilleja affinis	Ericameria linearifolia	Caulanthus simulans



GENERAL SURVEY INFORMATION		
Project Name	Proposed Wind Energy Facilities	
Survey Date	2019-04-10	
Biologist(s)	Margie Mulligan, Lindsay Willrick	
Survey Area	7	
Survey Pass	5	

			SURVE	CONDIT	IONS		
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
End	05:07:00	72	0	0	7	clear	
Start	13:03:00	66	0	0	7	clear	

	BUTTERFLY LIST SPECIES (COUNT)		
Behr's metalmark (15)	checkered white (4)	painted lady (15)	
bramble hairstreak (2)	common sootywing (2)		

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)		
(none)		

INCIDENTAL PLANT LIST		
(none)		



GENERAL SURVEY INFORMATION		
Project Name	Proposed Wind Energy Facilities	
Survey Date	2019-04-17	
Biologist(s)	Callie Amoaku, Patricia Schuyler	
Survey Area	7	
Survey Pass	6	

			SURVE	CONDIT	IONS		
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:48:00	72	66	0	4	clear	
End	13:18:00	74	80	0	5	clear	

	BUTTERFLY LIST SPECIES (COUNT)	
Behr's metalmark (180)	desert pearly marble (22)	painted lady (12)
blue-gray gnatcatcher (1+)	Edward's blue (5)	Propertius duskywing (4)
bramble hairstreak (4)	funereal duskywing (7)	Sulphur sp. (1+)
cabbage white (6)	gray hairstreak (1)	western pygmy-blue (5)
Chalcedon variable checkerspot (1)	great purple hairstreak (2)	white-lined sphinx moth (1+)

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)		
ash-throated flycatcher (1+)	common side-blotched lizard (1+)	wrentit (1+)
California towhee (1+)	red-tailed hawk (1+)	
common raven (1+)	striped racer (1+)	

	INCIDENTAL PLANT LIST	
Collinsia concolor	Penstemon spectabilis	
Oenothera californica ssp. avita	Viola pedunculata	



GENERAL SURVEY INFORMATION		
Project Name	Proposed Wind Energy Facilities	
Survey Date	2019-04-25	
Biologist(s)	Callie Amoaku, Erin Bergman, Patricia Schuyler	
Survey Area	7	
Survey Pass	7	

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	13:40:00	91	96	0	2	clear	
End	16:23:00	81	84	0	6	clear	

BUTTERFLY LIST SPECIES (COUNT)					
Acmon blue (1)	desert pearly marble (7)	painted lady (17)			
Behr's metalmark (92)	Edward's blue (6)	Propertius duskywing (2)			
checkered white (2)	funereal duskywing (12)	White sp (15)			
dainty sulphur (5)	Pacific sara orangetip (17)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
(none)					

INCIDENTAL PLANT LIST					
Cryptantha micrantha	Lasthenia gracilis	Phacelia distans			



GENERAL SURVEY INFORMATION					
Project Name	Proposed Wind Energy Facilities				
Survey Date	2019-05-09				
Biologist(s)	Callie Amoaku, Patricia Schuyler				
Survey Area	7				
Survey Pass	9				

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	10:33:00	70	65	40	2	patchy	
End	14:01:00	68	77	10	10	clear	

BUTTERFLY LIST SPECIES (COUNT)				
Acmon blue (1)	Edward's blue (2)	painted lady (5)		
Behr's metalmark (37)	Harford's sulphur (1)	Propertius duskywing (2)		
Blue spp. (1+)	Lady spp. (1+)	Sulphur spp. (1+)		
cabbage white (16)	marine blue (1)	western pygmy-blue (5)		
checkered white (8)	Pacific sara orangetip (6)	White spp. (1+)		

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
Blainville's horned lizard (1+)	black-headed grosbeak (1+)	European starling (1+)			
ash-throated flycatcher (1+)	bushtit (1+)	orange-crowned warbler (1+)			
band-tailed pigeon (1+)	California scrub-jay (1+)				

	INCIDENTAL PLANT LIST	
(none)		



GENERAL SURVEY INFORMATION					
Project Name	Proposed Wind Energy Facilities				
Survey Date	2019-03-17				
Biologist(s)	Jeffrey Priest				
Survey Area	8				
Survey Pass	1				

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	10:00:00	60	60	0	12	clear	Wind 4-10 with gusts 10-12
Mid day	12:07:00	65	66	0	12	clear	Wind 3-10 with gusts 12-15
End	14:30:00	64	65	0	12	clear	Wind 3-12, gusts 12-15

	BUTTERFLY LIST SPECIES (COUNT)				
funereal duskywing (2)	Pacific sara orangetip (2)	painted lady (18)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
oak titmouse (1+)	California quail (1+)	Lasy sp. butterfly fly-by (70)		
acorn woodpecker (1+)	California scrub-jay (1+)	mourning dove (1+)		
American crow (1+)	California thrasher (1+)	red-tailed hawk (1+)		
Bewick's wren (1+)	common raven (1+)	turkey vulture (1+)		
brush rabbit (1+)	common side-blotched lizard (1+)	western fence lizard (1+)		
California ground squirrel (1+)	coyote (1+)	white-crowned sparrow (1+)		

INCIDENTAL PLANT LIST				
Erodium cicutarium				



GENERAL SURVEY INFORMATION		
Project Name Proposed Wind Energy Facilities		
Survey Date	2019-03-22	
Biologist(s)	Callie Amoaku, Patricia Schuyler	
Survey Area	8	
Survey Pass	2	

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	14:44:00	69	73	30	2	clear	
End	16:49:00	66	70	20	2	clear	

	BUTTERFLY LIST SPECIES (COUNT)		
California tortoiseshell (2)	Pacific sara orangetip (6)		
desert pearly marble (7)	painted lady (18)		

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
bushtit (1+) California scrub-jay (1+) red-tailed hawk (1+)				
California ground squirrel (1+)	desert cottontail (1+)	spotted towhee (1+)		
California quail (1+) granite spiny lizard (1+) turkey vulture (1+)				

INCIDENTAL PLANT LIST				
Cryptantha sp.	Lasthenia gracilis			
Erodium cicutarium	Plagiobothrys sp.			



GENERAL SURVEY INFORMATION		
Project Name Proposed Wind Energy Facilities		
Survey Date	2019-03-29	
Biologist(s)	Callie Amoaku, Erin Bergman, Patricia Schuyler	
Survey Area	8	
Survey Pass	3	

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
End	14:58:00	75	75.7	20	2	patchy	
End	16:34:00	67	69	10	5	clear	

BUTTERFLY LIST SPECIES (COUNT)				
Acmon blue (1)	Edward's blue (1)	painted lady (325)		
California dogface (1)	funereal duskywing (5)	western bluebird (1+)		
desert pearly marble (14)	Pacific sara orangetip (2)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
oak titmouse (1+)	western kingbird (1+)			
bushtit (1+)	desert cottontail (1+)	white-crowned sparrow (1+)		
California ground squirrel (1+)	turkey vulture (1+)			
California scrub-jay (1+)	western fence lizard (1+)			

INCIDENTAL PLANT LIST				
Acmispon strigosus	Erodium cicutarium	Salvia columbariae		
Amsinckia menziesii	Lasthenia gracilis	Tropidocarpum gracile		
Cryptantha micrantha	Lomatium dasycarpum			
Descurainia pinnata	Lupinus concinnus			



GENERAL SURVEY INFORMATION			
Project Name	Proposed Wind Energy Facilities		
Survey Date	2019-03-27		
Biologist(s)	Patricia Schuyler		
Survey Area	8		
Survey Pass	3		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	10:00:00	60	63	80	7	patchy	
Start	10:58:00	62	63.3	60	6	patchy	Out of protocol. Survey rescheduled.
End	11:31:00	62	64	100	9	overcast	

BUTTERFLY LIST SPECIES (COUNT)				
(none)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
(none)					

INCIDENTAL PLANT LIST				
(none)				



GENERAL SURVEY INFORMATION			
Project Name	Proposed Wind Energy Facilities		
Survey Date	2019-04-03		
Biologist(s)	Patricia Schuyler		
Survey Area	8		
Survey Pass	4		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	10:16:00	56	61	40	10	patchy	Survey area 8
Mid survey	12:01:00	61	72	30	12	patchy	
End	14:27:00	67	72	60	10	patchy	

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (1)	cabbage white (5)	dainty sulphur (1)			
bramble hairstreak (1)	California dogface (2)	painted lady (20)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
(none)				

INCIDENTAL PLANT LIST					
(none)					



GENERAL SURVEY INFORMATION			
Project Name	Proposed Wind Energy Facilities		
Survey Date	2019-04-08		
Biologist(s)	Patricia Schuyler		
Survey Area	8		
Survey Pass	5		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	10:11:00	80.6	79.5	20	1	clear	
End	14:41:00	86	89	30	4	clear	

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (51)	dainty sulphur (2)	Pacific sara orangetip (4)			
cabbage white (13)	desert pearly marble (15)	painted lady (24)			
California tortoiseshell (1)	funereal duskywing (5)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
(none)				

INCIDENTAL PLANT LIST				
(none)				



GENERAL SURVEY INFORMATION				
Project Name	Proposed Wind Energy Facilities			
Survey Date	2019-04-15			
Biologist(s)	Patricia Schuyler			
Survey Area	8			
Survey Pass	6			

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
End	14:26:00	69.2	71.9	30	10	clear	
Start	22:02:00	64	69.4	40	2	patchy	

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (55)	California dogface (2)	western pygmy-blue (1)			
bramble hairstreak (2)	desert pearly marble (4)				
cabbage white (5)	painted lady (23)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
(none)				

INCIDENTAL PLANT LIST				
(none)				



GENERAL SURVEY INFORMATION				
Project Name	Proposed Wind Energy Facilities			
Survey Date	2019-04-25			
Biologist(s)	Patricia Schuyler			
Survey Area	8			
Survey Pass	7			

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:14:00	68	70	10	2	clear	
End	12:49:00	92	96.2	0	2	clear	

	BUTTERFLY LIST SPECIES (COUNT)				
Behr's metalmark (49)	Pacific sara orangetip (28)	southern blue (2)			
desert pearly marble (2)	painted lady (10)	White sp (13)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
(none)				

INCIDENTAL PLANT LIST		
Amsinckia intermedia	Euphorbia albomarginata	Pectocarya setosa
Arctostaphylos pungens	Gilia angelensis	Phacelia distans
Boechera pulchra	Gilia diegensis	Salvia columbariae
Calyptridium monandrum	Lasthenia gracilis	Sisymbrium altissimum
Cryptantha micrantha	Lepidium perfoliatum	Uropappus lindleyi
Descurainia pinnata	Lupinus bicolor	
Ericameria linearifolia	Lupinus concinnus	



GENERAL SURVEY INFORMATION		
Project Name	Proposed Wind Energy Facilities	
Survey Date	2019-05-01	
Biologist(s)	Callie Amoaku, Patricia Schuyler	
Survey Area	8	
Survey Pass	8	

			SURVEY	CONDIT	IONS		
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	10:05:00	66	69.1	0	1		
End	14:32:00	74	81	0	5	clear	

	BUTTERFLY LIST SPECIES (COUNT)	
Acmon blue (1)	desert orangetip (8)	Propertius duskywing (6)
Behr's metalmark (56)	Edward's blue (1)	western pygmy-blue (2)
cabbage white (35)	Pacific sara orangetip (7)	
dainty sulphur (4)	painted lady (12)	

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)		
(none)		

	INCIDENTAL PLANT LIST	
(none)		



GENERAL SURVEY INFORMATION		
Project Name	Proposed Wind Energy Facilities	
Survey Date	2019-05-09	
Biologist(s)	Callie Amoaku, Patricia Schuyler	
Survey Area	8	
Survey Pass	9	

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	14:08:00	68	77	10	8	clear	
End	16:30:00	65	70	30	6	clear	Gusts up to 13

	BUTTERFLY LIST SPECIES (COUNT)	
Behr's metalmark (14)	Lady spp. (1+)	White spp. (1+)
checkered white (7)	painted lady (5)	
Edward's blue (4)	white checkered-skipper (2)	

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)		
ash-throated flycatcher (1+) California scrub-jay (1+) orange-crowned warbler (1+)		
bushtit (1+)	European starling (1+)	

INCIDENTAL PLANT LIST		
(none)		



GENERAL SURVEY INFORMATION		
Project Name	Proposed Wind Energy Facilities	
Survey Date	2019-05-03	
Biologist(s)	Diana Saucedo, Erik LaCoste, Lindsay Willrick	
Survey Area	1, 2	
Survey Pass	8	

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:25:00	65	0	0	4	clear	
Midday	12:00:00	84	0	0	4	clear	
End	16:00:00	84	0	0	9	clear	

BUTTERFLY LIST SPECIES (COUNT)						
Acmon blue (11)	dainty sulphur (11)	Pacific sara orangetip (13)				
Behr's metalmark (105)	desert orangetip (13)	painted lady (8)				
bramble hairstreak (2)	Edward's blue (17)	pale swallowtail (7)				
brown elfin (2)	gray hairstreak (2)	Propertius duskywing (11)				
checkered white (22) Harford's sulphur (15)						
common buckeye (1)	marine blue (10)					

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)						
Anna's hummingbird (1+)	common side-blotched lizard (1+)	phainopepla (1+)				
ash-throated flycatcher (1+)	granite spiny lizard (1+)	red-tailed hawk (1+)				
Bewick's wren (1+)	greater roadrunner (1+)	Scott's oriole (1+)				
black-throated sparrow (1+)	hermit warbler (1+)	spotted towhee (1+)				
bushtit (1+)	house finch (1+)	Townsend's warbler (1+)				
California quail (1+)	Kangaroo rat spp. (1+)	western kingbird (1+)				
California scrub-jay (1+)	ladder-backed woodpecker (1+)	western tanager (1+)				
California thrasher (1+)	long-nosed leopard lizard (1+)	white-crowned sparrow (1+)				
California towhee (1+)	mourning dove (1+)	wrentit (1+)				
common raven (1+)	northern flicker (1+)					



INCIDENTAL PLANT LIST						
Descurainia sophia	Heliotropium curassavicum	Pectocarya setosa				
Dichelostemma capitatum	Lasthenia gracilis	Platystemon californicus				
Ericameria linearifolia	Layia glandulosa	Salvia columbariae				
Eriodictyon trichocalyx	Leptosiphon lemmonii	Uropappus lindleyi				
Eriophyllum wallacei	Lupinus concinnus	Geraea viscida				
Erodium cicutarium	Malacothrix glabrata	Linanthus bellus				



GENERAL SURVEY INFORMATION					
Project Name	Proposed Wind Energy Facilities				
Survey Date	2019-03-24				
Biologist(s)	Diana Saucedo, Victor Novik				
Survey Area	4, 5				
Survey Pass	2				

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	09:00:00	60	62	0	4	clear	
End	16:30:00	69	72	20	8	patchy	

BUTTERFLY LIST SPECIES (COUNT)					
Behr's metalmark (1)	dainty sulphur (7)	painted lady (102)			
bramble hairstreak (1)	desert orangetip (15)	Sara orange-tip (27)			
brown elfin (1)	funereal duskywing (6)	spring white (17)			
checkered white (10)	Harford's sulphur (5)				

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)					
(none)					

INCIDENTAL PLANT LIST					
Amsinckia menziesii	Erodium cicutarium	Sisymbrium irio			
Arctostaphylos spp	Lasthenia californica	Tropidocarpum gracile			
Camissoniopsis bistorta	Lomatium dasycarpum				
Cryptantha spp	Ribes quercetorum				



GENERAL SURVEY INFORMATION					
Project Name	me Proposed Wind Energy Facilities				
Survey Date	2019-04-10				
Biologist(s)	Erin Bergman				
Survey Area	6, 7				
Survey Pass	5				

	SURVEY CONDITIONS						
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
Start	08:17:00	67	69	0	4	clear	
End	18:09:00	69	74	0	3	clear	

BUTTERFLY LIST SPECIES (COUNT)						
quino checkerspot butterfly (5)	desert pearly marble (45)	Pacific sara orangetip (34)				
Acmon blue (30)	funereal duskywing (43)	painted lady (82)				
Behr's metalmark (87)	gray hairstreak (36)	west coast lady (23)				
bramble hairstreak (47)	great purple hairstreak (13)	White species (26)				
brown elfin (1)	Lady species (51)					

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)			
California quail (1+)	European starling (1+)	wild turkey (1+)	
California scrub-jay (1+)	red-tailed hawk (1+)		
chipping sparrow (1+)	turkey vulture (1+)		

INCIDENTAL PLANT LIST				
Acmispon argophyllus var. argophyllus	Eriophyllum wallacei	Lupinus concinnus		
Amsinckia intermedia	Lasthenia gracilis	Salvia columbariae		
Boechera pulchra	Layia glandulosa			
Calycoseris parryi	Lupinus bicolor			



GENERAL SURVEY INFORMATION			
Project Name	Proposed Wind Energy Facilities		
Survey Date	2019-05-02		
Biologist(s)	Brock Ortega		
Survey Area	7		
Survey Pass	8		

SURVEY CONDITIONS							
Status	Time	Air Temp. (F)	Ground Temp. (F)	Cloud Cover (%)	Wind (mph)	Sky	Notes
End	02:59:00	80	78	30	5	patchy	
Start	08:01:00	70	70	50	3	patchy	

BUTTERFLY LIST SPECIES (COUNT)				
Blue sp (30)	Edward's blue (11)	painted lady (15)		
brown elfin (4)	Lady sp (15)	west coast lady (11)		
cabbage white (16)	marine blue (23)	western pygmy-blue (25)		
common buckeye (14)	mourning cloak (1+)			
desert pearly marble (6)	Pacific sara orangetip (12)			

INCIDENTAL WILDLIFE LIST SPECIES (COUNT)				
song sparrow (1+)	Cassin's kingbird (1+)	house finch (1+)		
American kestrel (1+)	common raven (1+)	Kangaroo rat sp (1+)		
Botta's pocket gopher (1+)	common side-blotched lizard (1+)	mule deer (1+)		
California quail (1+)	coyote (1+)	red-tailed hawk (1+)		
California scrub-jay (1+)	desert cottontail (1+)	rock wren (1+)		
California thrasher (1+)	desert woodrat (1+)	western toad (1+)		
California towhee (1+)	gophersnake (1+)			

INCIDENTAL PLANT LIST				
(none)				

Appendix C

Notification of Observation of Quino Checkerspot Butterfly for the Proposed Wind Energy Facilities



CORPORATE OFFICE 605 THIRD STREET ENCINITAS, CALIFORNIA 92024 T 760.942.5147 T 800.450.1818 F 760.632.0164

April 11, 2019

U.S. Fish and Wildlife Service Attn: Recovery Permit Coordinator 2177 Salk Avenue; Suite 250 Carlsbad, CA 92008

Re: Notification of Observation of Quino Checkerspot Butterfly Campo Wind Project, Boulder Brush Portion, Boulevard, County of San Diego, California.

Dear Recovery Permit Coordinator,

The purpose of this letter is to provide the U. S. Fish and Wildlife Service 24-hour written notification of Quino checkerspot butterfly observations on the Boulder Brush portion of the Campo Wind project site. The observation was made on April 10, 2019. A total of five butterflies were identified by Erin Bergman (TE-53771B-0). See attached map.

The Quino was observed around 2:00- 3:00 pm. Ms. Bergman immediately observed it sitting on the ground approximately 3 feet in front of her. Ms. Bergman wanted to confirm the observation with binoculars so she followed quino as it moved up in elevation. As Ms. Bergman moved up in elevation, 5 total were observed performing hill topping behaviors. Ms. Bergman confirmed that all 5 butterflies were quino with binoculars and took a few photos. No other checkerspot species were present but numerous other butterflies were observed hill topping with quino. Since the quino butterflies were hill topping they stayed at the location for over an hour. Callie Amoaku joined Ms. Bergman to observe the butterflies with binoculars and also took photos.

Weather conditions were approximately 77 degrees F., the sky was clear with 0 percent cloud cover and wind speeds were 0-6 miles per hour.

The Quino was observed in an area with open decomposed granite soils, hilltops, ridges, numerous granitic rock outcrops, and various nectar sources. No host plants were observed anywhere within the survey area. Quino spent much of the observation time nectaring on Clearwater cryptantha (*Cryptantha intermedia var. intermedia*) and pointed cryptantha (*Crytantha muricata var. jonesii*) for short periods of time (a few seconds), landing on bare ground (a few seconds) and performing hill topping behaviors the majority of the time.



Please contact me at (760) 274-3927 if there are any questions concerning this observation.

Very truly yours,

DUDEK

Erin Bergman

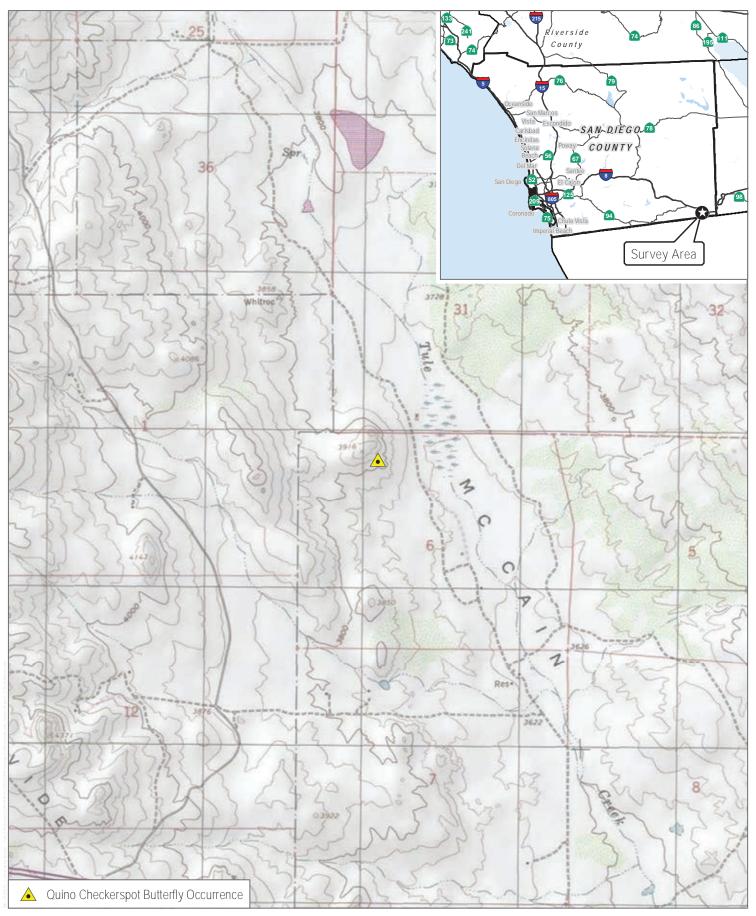
Biologist





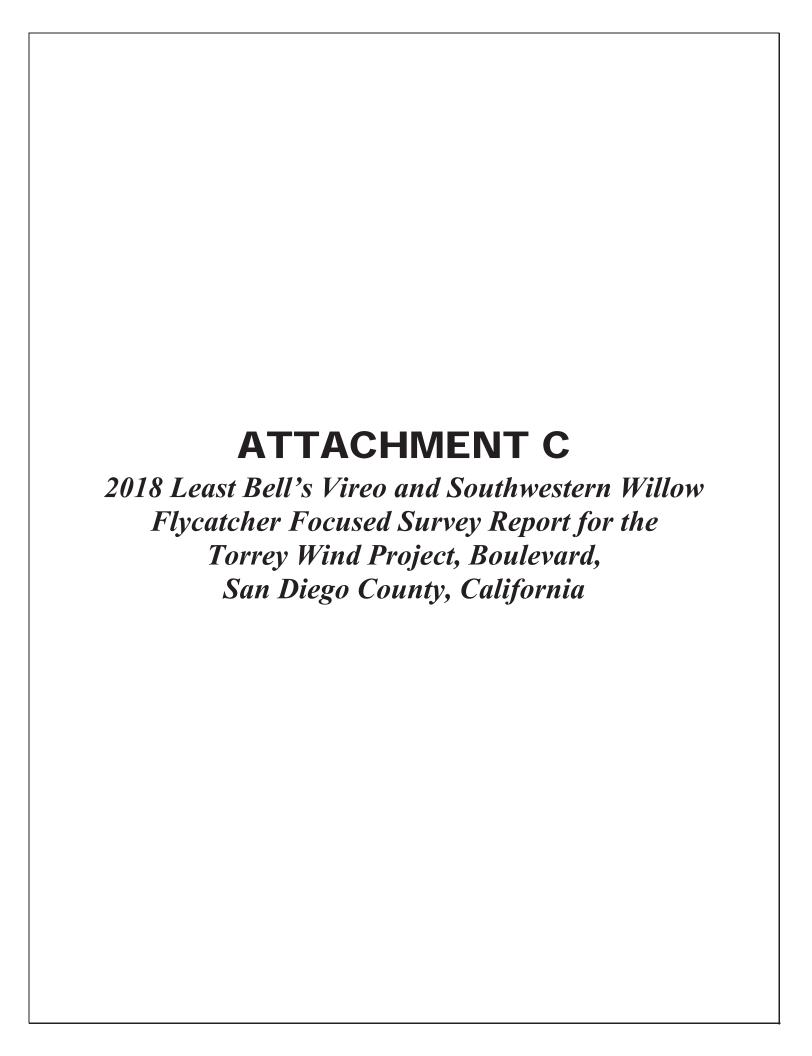
Quino Photo 2





SOURCE: USGS 7.5-Minute Series Live Oak Springs Quadrangle







MAIN OFFICE 605 THIRD STREET ENCINITAS, CALIFORNIA 92024 T 760.942.5147 T 800.450.1818 F 760.632.0164

October 10, 2018 10212

Recovery Permit Coordinator U.S. Fish and Wildlife Service 2177 Salk Avenue, Suite 250 Carlsbad, California 92008

> Subject: 2018 Least Bell's Vireo and Southwestern Willow Flycatcher Focused Survey Report for the Torrey Wind Project, Boulevard, San Diego County, California

Dear Recovery Permit Coordinator:

This report documents the results of protocol-level presence/absence surveys for the state- and federally listed endangered least Bell's Vireo (*Vireo bellii pusillus*; vireo) and the state- and federally listed endangered southwestern willow flycatcher (*Empidonax traillii extimus*; flycatcher). The surveys were conducted in support of the Torrey Wind project (Project), located in the County of San Diego, California. The Project would involve construction and operation of approximately 32 new wind turbines (rated up to 4.2 megawatts each), an underground electrical collection system, a collector substation, an operation and maintenance (O&M) building and associated parking areas, a temporary staging area, a batch plant, meteorological towers, and various access roads. The Project site contains approximately 13.1 acres of potentially suitable vireo and flycatcher habitat that were surveyed in 2018.

The vireo and flycatcher are closely associated with riparian habitats, especially densely vegetated willow scrub and riparian forest vegetation. These species are threatened primarily by loss, degradation, and fragmentation of riparian habitats. They also are impacted by brown-headed cowbird (*Molothrus ater*) nest parasitism.

LOCATION AND EXISTING CONDITIONS

The study area is entirely on private land in southeastern San Diego County, California in the McCain Valley area, north of the community of Boulevard and is accessed via Interstate 8 and Ribbonwood Road (Figure 1, Project Location). The study area is within the U.S. Geological Survey's 7.5-minute Sombrero Peak and Live Oak Springs quadrangle maps within Township 17 South, Range 6 East, Sections 01, 05, and 06; Township 17 South, Range 7 East, Sections 05 and 06; and Township 16 South, Range 6 East, Sections 19, 20, 29, 30, 31, and 32 (Figure 1).

Subject: 2018 Least Bell's Vireo and Southwestern Willow Flycatcher Focused Survey Report for

the Torrey Wind Project, Boulevard, San Diego County, California

Elevations range from about 3,280 feet above mean sea level to approximately 4,120 feet above mean sea level.

According to the U.S. Department of Agriculture, Natural Resources Conservation Service, the following seven soil series were mapped within the study area: Calpine (coarse sandy loam, 5% to 9% slopes); La Posta (loamy coarse sand, 5% to 30% slopes, eroded; rocky loamy coarse sand, 5% to 30% slopes, eroded); loamy alluvial land; Mottsville (loamy coarse sand, 2% to 9% slopes); and Tollhouse (rocky coarse sandy loam, 5% to 30% slopes, eroded) (USDA 2018).

VEGETATION COMMUNITIES

Approximately 13.1 acres of vireo- and flycatcher-suitable habitat were mapped on the Project site according to Oberbauer et al. (2008) (Figure 2, Least Bell's Vireo and Southwestern Willow Flycatcher Survey Results). Habitats suitable for vireo and flycatcher within the study area include mulefat scrub, mature riparian woodland, and oak woodland.

Mulefat Scrub

Mulefat scrub is a depauperate, tall, herbaceous riparian scrub strongly dominated by mulefat (*Baccharis salicifolia*). This early seral community is maintained by frequent flooding. Site factors include intermittent stream channels with fairly coarse substrate and moderate depth to the water table (Oberbauer et al. 2008). This community type is widely scattered along intermittent streams and near larger rivers.

Riparian Woodland

Riparian woodland is an open to dense riparian woodland dominated by riparian trees, including western sycamore (*Platanus racemosa*), *Populus* species, *Sambucus* species, and other wetland plants (Oberbauer et al. 2008). Riparian woodland is primarily found along streams and rivers.

Oak Woodland

Oak woodland is a forest dominated by oak (*Quercus* sp.) in the tree canopy cover and has a poorly developed shrub layer (Oberbauer et al. 2008). Oak woodland is primarily found along shaded ravines.

METHODS

Suitable habitat areas within the study area were surveyed eight times for vireo and five times for flycatcher. Flycatcher-permitted Dudek wildlife biologist, Brock A. Ortega (Permit # TE813545-



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6), conducted all combined flycatcher/vireo surveys (Table 1). The flycatcher-permitted biologist used audio-playback techniques to elicit flycatcher responses. Focused surveys for these species were initiated on May 19, 2018, and continued through July 28, 2018.

Table 1
Vireo and Flycatcher Survey Schedule and Conditions

Survey Pass #/ Focus	Date	Hours	Personnel	Conditions (temperature, cloud cover, wind speed)
1-LBVI 1-SWFL	2018-05-19	6:30 AM-11:00 AM	BAO	60-72°F; 0-20% cc; 0-3 mph wind
2-LBVI	2018-05-28	5:30 AM-10:30 AM	BAO	57-74°F; 0-50% cc; 3-8 mph wind
3-LBVI 2-SWFL	2018-06-07	5:35 AM-10:06 AM	BAO	57-70°F; 20% cc; 3-8 mph wind
4-LBVI 3-SWFL	2018-06-17	6:10 AM-11:05 AM	BAO	60-80°F; 0% cc; 3-5 mph wind
5-LBVI	2018-06-27	5:20 AM-11:10 AM	BAO	55-90°F; 0% cc; 3-8 mph wind
6-LBVI 4-SWFL	2018-07-07	5:30 AM-10:30 AM	BAO	78–95°F; 0% cc; 0–1 mph wind
7-LBVI 5-SWFL	2018-07-17	5:30 AM-10:30 AM	BAO	76-88°F; 20-100% cc; 0-10 mph wind
8-LBVI	2018-07-28	5:45 AM-10:30 AM	BAO	60-89°F; 10-80% cc; 0-3 mph wind

Notes: LBVI = least Bell's vireo; SWFL = Southwestern willow flycatcher; BAO = Brock Ortega; cc = cloud cover; mph = miles per hour; °F = degrees Fahrenheit.

As directed by Stacey Love, United States Fish & Wildlife Service (USFWS) Recovery Permit Coordinator, surveys for vireo and flycatcher were not conducted concurrently. Due to differences in detectability, surveys were conducted sequentially, with surveys for the flycatcher first (i.e., first thing in the morning) and surveys for the vireo conducted afterwards. Additionally, for linear survey routes within a riparian corridor: flycatchers were surveyed from the starting point to the end, and vireos were surveyed on the way back. This route was arranged to cover all suitable habitat on site. A vegetation map (1:2,400 scale; 1 inch=200 feet) of the study area was available to record any detected vireo or flycatcher. Binoculars (7×50, 10×42, 10×50) were used to aid in detecting and identifying wildlife species.

The five surveys conducted for flycatcher followed the currently accepted protocol (A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher [Sogge et al. 2010]), which states that a minimum of five survey visits is needed to evaluate project effects on flycatchers. It is recommended that one survey is made between May 15 and 31, two surveys between June 1 and June 24, and two surveys between June 25 and July 17. Surveys during the

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final period (June 25 and July 17) were separated by at least five days. A tape of recorded flycatcher vocalizations was used, approximately every 50 to 100 feet within suitable habitat, to induce flycatcher responses. If a flycatcher had been detected, playing of the tape would have ceased to avoid harassment.

A Section 10(a)(1)(A) permit is not required to conduct presence/absence surveys for vireo. The eight surveys for vireo followed the currently accepted *Least Bell's Vireo Survey Guidelines* (USFWS, 2001), which states that a minimum of eight survey visits should be made to all riparian areas and any other potential vireo habitats between April 10 and July 31. The site visits are required to be conducted at least 10 days apart to maximize the detection of early and late arrivals, females, non-vocal birds, and nesting pairs. Taped playback of vireo vocalizations were not used during the surveys. Surveys were conducted between dawn and noon and were not conducted during periods of excessive or abnormal cold, heat, wind, rain, or other inclement weather.

Weather conditions, time of day, and season were appropriate for the detection of flycatcher and vireo (Table 1).

RESULTS

No vireo or flycatchers were observed during focused surveys.

Sensitive species observed included yellow warbler (*Dendroica petechia*), a California Department of Fish and Wildlife (CDFW) Species of Special Concern; Cooper's hawk (*Accipiter cooperii*), a CDFW Watch List species; Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), a CDFW Watch List species; and San Diegan tiger whiptail (*Aspidoscelis tigris stejnegeri*), a CDFW Species of Special Concern. However, only yellow warbler was mapped during the focused survey. Sensitive species observation locations are shown in Figure 2. Brown-headed cowbird was also detected within the study area.

Fifty-three wildlife species were observed during the focused surveys. A full list of wildlife species observed during the survey is provided in Appendix A.

Please feel free to contact me at 760.479.4254 with questions or if you require additional information.

Subject: 2018 Least Bell's Vireo and Southwestern Willow Flycatcher Focused Survey Report for the Torrey Wind Project, Boulevard, San Diego County, California

I certify that the information in this survey report and attached exhibits fully and accurately represent my work.

Sincerely,

Brock Ortega Permit #TE813545-6

Att: Figures 1–2 Appendix A

REFERENCES

Oberbauer, Thomas, Meghan Kelly, and Jeremy Buegge. March 2008. Draft Vegetation Communities of San Diego County. Based on "Preliminary Descriptions of the Terrestrial Natural Communities of California", Robert F. Holland, Ph.D., October 1986.

Sogge, M.K., Ahlers, Darrell, and Sferra, S.J., 2010. *A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher*. U.S. Geological Survey Techniques and Methods 2A-10, 38 p.

USDA (U.S. Department of Agriculture). 2018. Web Soil Survey [web application]. USDA, Natural Resources Conservation Service. http://websoilsurvey.nrcs.usda.gov/app/.

USFWS. 2001. Least Bell's Vireo Survey Guidelines. January 19.

APPENDIX A

Wildlife Species Observed in Study Area

BIRD

BLACKBIRDS, ORIOLES & ALLIES

ICTERIDAE—BLACKBIRDS

Euphagus cyanocephalus—Brewer's blackbird Icterus cucullatus—hooded oriole
Molothrus ater—brown-headed cowbird

BUSHTITS

AEGITHALIDAE—LONG-TAILED TITS & BUSHTITS

Psaltriparus minimus—bushtit

CARDINALS, GROSBEAKS & ALLIES

CARDINALIDAE—CARDINALS & ALLIES

Piranga ludoviciana—western tanager

FINCHES

FRINGILLIDAE—FRINGILLINE & CARDUELINE FINCHES & ALLIES

Haemorhous mexicanus—house finch Spinus tristis—American goldfinch

FLYCATCHERS

TYRANNIDAE—TYRANT FLYCATCHERS

Sayornis nigricans—black phoebe Sayornis saya—Say's phoebe Tyrannus vociferans—Cassin's kingbird

HAWKS

ACCIPITRIDAE—HAWKS, KITES, EAGLES, & ALLIES

Accipiter cooperii—Cooper's hawk Buteo jamaicensis—red-tailed hawk

HUMMINGBIRDS

TROCHILIDAE—HUMMINGBIRDS

Archilochus alexandri—black-chinned hummingbird Calypte anna—Anna's hummingbird

JAYS, MAGPIES & CROWS

CORVIDAE—CROWS & JAYS

Aphelocoma californica—California scrub-jay
Corvus brachyrhynchos—American crow
Corvus corax—common raven

MOCKINGBIRDS & THRASHERS

MIMIDAE—MOCKINGBIRDS & THRASHERS

Toxostoma redivivum—California thrasher

NEW WORLD QUAIL

ODONTOPHORIDAE—NEW WORLD QUAIL

Callipepla californica—California quail

NEW WORLD VULTURES

CATHARTIDAE—NEW WORLD VULTURES

Cathartes aura—turkey vulture

PIGEONS & DOVES

COLUMBIDAE—PIGEONS & DOVES

Zenaida macroura—mourning dove

ROADRUNNERS & CUCKOOS

CUCULIDAE—CUCKOOS, ROADRUNNERS, & ANIS

Geococcyx californianus—greater roadrunner

SILKY FLYCATCHERS

PTILOGONATIDAE—SILKY-FLYCATCHERS

Phainopepla nitens—phainopepla



SWIFTS

APODIDAE—SWIFTS

Aeronautes saxatalis—white-throated swift

THRUSHES

TURDIDAE—THRUSHES

Sialia mexicana—western bluebird

TITMICE

PARIDAE—CHICKADEES & TITMICE

Baeolophus inornatus—oak titmouse

WOOD WARBLERS & ALLIES

PARULIDAE—WOOD-WARBLERS

Cardellina pusilla—Wilson's warbler Setophaga petechia—yellow warbler

WOODPECKERS

PICIDAE—WOODPECKERS & ALLIES

Colaptes auratus—northern flicker Dryobates nuttallii—Nuttall's woodpecker

WRENS

TROGLODYTIDAE—WRENS

Salpinctes obsoletus—rock wren
Thryomanes bewickii—Bewick's wren
Troglodytes aedon—house wren

WRENTITS

TIMALIIDAE—BABBLERS

Chamaea fasciata—wrentit



NEW WORLD SPARROWS

PASSERELLIDAE—NEW WORLD SPARROWS

Aimophila ruficeps canescens—Southern California rufous-crowned sparrow

Aimophila ruficeps—rufous-crowned sparrow

Artemisiospiza nevadensis—sagebrush sparrow

Melospiza melodia—song sparrow

Pipilo maculatus—spotted towhee

Spizella atrogularis—black-chinned sparrow

MAMMAL

CANIDS

CANIDAE—WOLVES & FOXES

Canis latrans—coyote

CATS

FELIDAE—CATS

Lynx rufus—bobcat

HARES & RABBITS

LEPORIDAE—HARES & RABBITS

Lepus californicus—black-tailed jackrabbit Sylvilagus audubonii—desert cottontail

MUSTELIDS

MEPHITIDAE—SKUNKS

Mephitis mephitis—striped skunk

POCKET GOPHERS

GEOMYIDAE—POCKET GOPHERS

Thomomys bottae—Botta's pocket gopher

SQUIRRELS



SCIURIDAE—SQUIRRELS

Ammospermophilus leucurus—white-tailed antelope squirrel Spermophilus (Otospermophilus) beecheyi—California ground squirrel

UNGULATES

CERVIDAE—DEERS

Odocoileus hemionus-mule deer

RATS, MICE, & VOLES

CRICETIDAE—RATS, MICE, & VOLES

Neotoma sp.—woodrat

REPTILE

LIZARDS

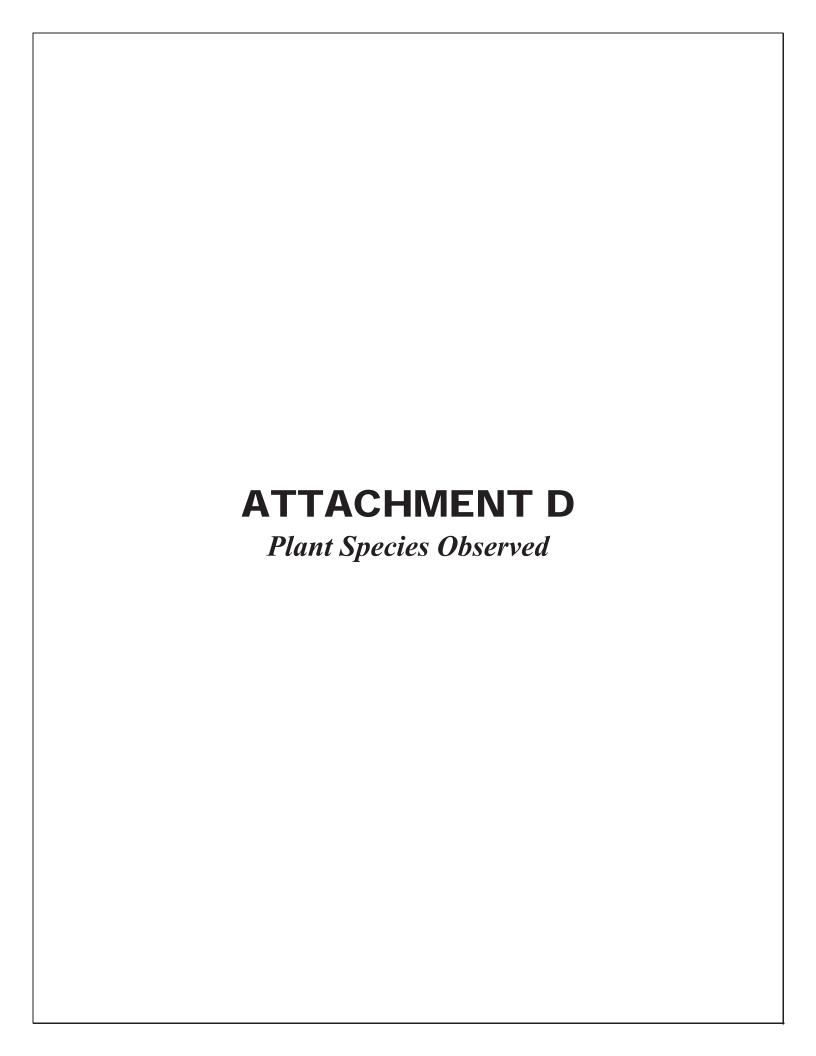
PHRYNOSOMATIDAE—IGUANID LIZARDS

Sceloporus occidentalis—western fence lizard Uta stansburiana—common side-blotched lizard

TEIIDAE—WHIPTAIL LIZARDS

Aspidoscelis tigris stejnegeri—San Diegan tiger whiptail

^{*} signifies introduced (non-native) species



APPENDIX D Plant Compendium

VASCULAR SPECIES

EUDICOTS

ADOXACEAE—MUSKROOT FAMILY

Sambucus nigra ssp. caerulea—blue elderberry

AMARANTHACEAE—AMARANTH FAMILY

* Amaranthus albus—prostrate pigweed

ANACARDIACEAE—SUMAC OR CASHEW FAMILY

Malosma laurina—laurel sumac

Rhus aromatica var. aromatica—single-leaved skunkbrush

Rhus aromatica var. simplicifolia—single-leaved skunkbrush

Rhus ovata—sugarbush

APIACEAE—CARROT FAMILY

* Apium graveolens—wild celery

Lomatium dasycarpum ssp. dasycarpum—woollyfruit desertparsley

Lomatium lucidum—shiny biscuitroot

Lomatium mohavense—Mojave desertparsley

Lomatium sp.—no common name

Sanicula arguta—sharptooth blacksnakeroot

Tauschia arguta—southern umbrellawort

APOCYNACEAE—DOGBANE FAMILY

Asclepias fascicularis—Mexican whorled milkweed

ASTERACEAE—SUNFLOWER FAMILY

Acamptopappus sphaerocephalus—rayless goldenhead

Achillea millefolium—common yarrow

Acourtia microcephala—sacapellote

Ambrosia acanthicarpa—flatspine bur ragweed

Ambrosia psilostachya—western ragweed

Anisocoma acaulis-scalebud

Artemisia douglasiana—Douglas' sagewort

Artemisia dracunculus—wild tarragon

Artemisia tridentata—big sagebrush

Baccharis pilularis—coyote brush

Baccharis salicifolia ssp. salicifolia-mulefat

Baccharis sergiloides—broom baccharis

Calycoseris parryi—yellow tackstem

Chaenactis fremontii—pincushion flower



Chaenactis glabriuscula var. glabriuscula—yellow pincushion

Chaenactis sp.—no common name

Cirsium occidentale—cobwebby thistle

* Coreopsis tinctoria—golden tickseed

Corethrogyne filaginifolia—common sandaster

Deinandra floribunda—Tecate tarplant

Ericameria brachylepis—chaparral goldenbush

Ericameria cuneata var. spathulata—cliff goldenbush

Ericameria linearifolia—narrowleaf goldenbush

Ericameria nauseosa—rubber rabbitbrush

Ericameria palmeri—Palmer's goldenbush

Ericameria paniculata—black-stem rabbitbrush

Ericameria pinifolia—pinebush

Ericameria sp.—no common name

Erigeron foliosus var. foliosus—leafy fleabane

Eriophyllum confertiflorum var. confertiflorum—golden-yarrow

Eriophyllum wallacei—woolly easterbonnets

Geraea viscida—sticky geraea

Gutierrezia californica—California match weed

Gutierrezia sarothrae—broom snake weed

* Hypochaeris glabra—smooth cat's ear

Lasthenia californica—California goldfields

Lasthenia glaberrima—smooth goldfields

Lasthenia glabrata—yellowray goldfields

Lasthenia gracilis—needle goldfields

Lasthenia sp.—no common name

Layia glandulosa—whitedaisy tidytips

Layia platyglossa—coastal tidytips

Leptosyne californica—California tickseed

Lessingia glandulifera—valley lessingia

Logfia filaginoides—California cottonrose

Malacothrix californica—California desertdandelion

Malacothrix glabrata—smooth desertdandelion

* Matricaria discoidea—disc mayweed

Pentachaeta aurea—golden chaetopappa

Senecio californicus—California ragwort

Senecio flaccidus—threadleaf ragwort

Stephanomeria exigua—small wirelettuce

Stylocline gnaphaloides—mountain neststraw

* Taraxacum officinale—common dandelion

Uropappus lindleyi—Lindley's silverpuffs

BORAGINACEAE—BORAGE FAMILY

Amsinckia intermedia—common fiddleneck Amsinckia menziesii—Menzies' fiddleneck



Amsinckia tessellata—bristly fiddleneck

Cryptantha intermedia var. intermedia—Clearwater cryptantha

Cryptantha micrantha var. lepida—redroot cryptantha

Cryptantha micrantha—redroot cryptantha

Cryptantha sp.—no common name

Emmenanthe penduliflora var. penduliflora—whisperingbells

Eriodictyon crassifolium var. nigrescens—thickleaf yerba santa

Eriodictyon crassifolium—thick leaf yerba santa

Eriodictyon sp.—no common name

Eriodictyon trichocalyx var. lanatum—hairy yerba santa

Eriodictyon trichocalyx—hairy yerba santa

Heliotropium curassavicum var. oculatum—seaside heliotrope

Heliotropium curassavicum—salt heliotrope

Nama demissa var. demissa— Nama

Nemophila menziesii—baby blue eyes

Pectocarya linearis—sagebrush combseed

Pectocarya penicillata—sleeping combseed

Pectocarya peninsularis—peninsular pectocarya

Pectocarya recurvata—curvenut combseed

Pectocarya setosa—moth combseed

Pectocarya sp.—no common name

Phacelia campanularia—desertbells

Phacelia cicutaria var. hispida—caterpillar phacelia

Phacelia cicutaria—caterpillar phacelia

Phacelia distans—distant phacelia

Phacelia imbricata var. imbricata—no common name

Phacelia parryi—Parry's phacelia

Phacelia ramosissima var. latifolia—branching phacelia

Phacelia sp.—no common name

Phacelia tanacetifolia—lacy phacelia

Plagiobothrys arizonicus—Arizona popcornflower

Plagiobothrys bracteatus—bracted popcornflower

Plagiobothrys collinus—Cooper's popcornflower

Plagiobothrys sp.—no common name

BRASSICACEAE—MUSTARD FAMILY

Arabis sp.—no common name

Boechera arcuata—elegant rockcress

Boechera californica—California rockcress

Boechera perennans—perennial rockcress

Boechera pulchra—beautiful rockcress

Boechera sp.—no common name

- * Brassica sp.—no common name
- * Capsella bursa-pastoris—shepherd's purse

Caulanthus heterophyllus—San Diego wild cabbage



Descurainia pinnata ssp. brachycarpa—western tansymustard Descurainia pinnata ssp. glabra—western tansymustard

- * Descurainia sophia—herb sophia
 - Descurainia sp.—no common name
- * Hirschfeldia incana—shortpod mustard
- * Lepidium perfoliatum—clasping pepperweed Lepidium virginicum ssp. menziesii—intermediate pepperweed
- * Sisymbrium altissimum—tall tumblemustard
- * Sisymbrium irio—London rocket Streptanthus campestris—southern jewelflower Tropidocarpum gracile—dobie pod

CACTACEAE—CACTUS FAMILY

Cylindropuntia californica var. parkeri—brownspined pricklypear Cylindropuntia ganderi—Gander's buckhorn cholla Opuntia phaeacantha—tulip pricklypear

CAPRIFOLIACEAE—HONEYSUCKLE FAMILY

Lonicera subspicata var. denudata—Santa Barbara honeysuckle

CARYOPHYLLACEAE—PINK FAMILY

Minuartia douglasii—Douglas' stitchwort

CHENOPODIACEAE—GOOSEFOOT FAMILY

Chenopodium californicum—California goosefoot

* Chenopodium murale—nettleleaf goosefoot

CONVOLVULACEAE—MORNING-GLORY FAMILY

Cuscuta californica—chaparral dodder

CRASSULACEAE—STONECROP FAMILY

Dudleya pulverulenta—chalk dudleya

CUCURBITACEAE—GOURD FAMILY

Cucurbita foetidissima—Missouri gourd Cucurbita palmata—coyote gourd Marah macrocarpa—Cucamonga manroot

ERICACEAE—HEATH FAMILY

Arctostaphylos glauca—bigberry manzanita Arctostaphylos pungens—pointleaf manzanita Arctostaphylos sp.—no common name Xylococcus bicolor—mission manzanita

EUPHORBIACEAE—SPURGE FAMILY

Croton setiger—dove weed

Euphorbia albomarginata—whitemargin sandmat

* Euphorbia maculata—spotted sandmat

Euphorbia polycarpa—smallseed sandmat

* Euphorbia sp.—no common name

FABACEAE—LEGUME FAMILY

* Acacia decurrens—green wattle

Acmispon argophyllus var. argophyllus—silver bird's-foot trefoil

Acmispon glaber var. brevialatus—western bird's-foot trefoil

Acmispon heermannii—Heermann's bird's-foot trefoil

Acmispon strigosus—strigose bird's-foot trefoil

Astragalus didymocarpus—dwarf white milkvetch

Astragalus douglasii var. parishii—Parish's milkvetch

Astragalus douglasii var. perstrictus—Jacumba milk-vetch

Lupinus bicolor—miniature lupine

Lupinus concinnus—bajada lupine

Lupinus excubitus—grape soda lupine

Lupinus hirsutissimus—stinging annual lupine

Lupinus succulentus—hollowleaf annual lupine

Lupinus truncatus—collared annual lupine

Trifolium willdenovii—tomcat clover

FAGACEAE—OAK FAMILY

Ouercus × *acutidens*—hvbrid oak

Quercus agrifolia var. oxyadenia—coast live oak

Ouercus agrifolia—coast live oak

Quercus chrysolepis—Canyon live oak

Ouercus cornelius-mulleri-Muller oak

GARRYACEAE—SILK TASSEL FAMILY

Garrya veatchii—canyon silktassel

GENTIANACEAE—GENTIAN FAMILY

Frasera parryi—Coahuila frasera

GERANIACEAE—GERANIUM FAMILY

- * Erodium botrys—longbeak stork's bill
- * Erodium cicutarium—redstem stork's bill
- * Erodium sp.—no common name

GROSSULARIACEAE—GOOSEBERRY FAMILY

Ribes quercetorum—oak gooseberry



LAMIACEAE—MINT FAMILY

Monardella nana—yellow monardella Salvia clevelandii—fragrant sage Salvia columbariae—chia Trichostema lanatum—woolly bluecurls

LOASACEAE—LOASA FAMILY

Mentzelia sp.—no common name *Mentzelia veatchiana*—Veatch's blazingstar

MONTIACEAE—MONTIA FAMILY

Calandrinia menziesii—red maids Calyptridium monandrum—common pussypaws

MYRSINACEAE—MYRSINE FAMILY

* Lysimachia arvensis—scarlet pimpernel

NYCTAGINACEAE—FOUR O'CLOCK FAMILY

Abronia villosa var. aurita—chaparral sand-verbena Boerhavia triquetra var. intermedia—slender spiderling Mirabilis multiflora var. pubescens—Colorado four o'clock Mirabilis multiflora—Colorado four o'clock

ONAGRACEAE—EVENING PRIMROSE FAMILY

Camissonia sp.—no common name

Camissonia strigulosa—sandysoil suncup

Camissoniopsis bistorta—southern suncup

Camissoniopsis confusa—San Bernardino suncup

Camissoniopsis micrantha—miniature suncup

Camissoniopsis pallida—paleyellow suncup

Clarkia purpurea—winecup clarkia

Eulobus californicus—California suncup

Oenothera californica ssp. avita—California evening primrose

Oenothera californica—California evening primrose

OROBANCHACEAE—BROOM-RAPE FAMILY

Aphyllon fasciculatum—clustered broomrape

Castilleja affinis—coast Indian paintbrush

Castilleja applegatei—wavyleaf Indian paintbrush

Castilleja foliolosa—Texas Indian paintbrush

Castilleja subinclusa ssp. subinclusa—longleaf Indian paintbrush

Cordylanthus rigidus—stiffbranch bird's beak

PAEONIACEAE—PEONY FAMILY

Paeonia californica—California peony

PAPAVERACEAE—POPPY FAMILY

Argemone munita—flatbud pricklypoppy Dendromecon rigida—bush poppy Eschscholzia californica—California poppy Platystemon californicus—creamcups

PHRYMACEAE—LOPSEED FAMILY

Diplacus aurantiacus—bush monkeyflower Diplacus fremontii—Fremont's monkeyflower Erythranthe guttata—common monkey flower Erythranthe palmeri—Palmer's monkeyflower Mimetanthe pilosa—false monkeyflower

PLANTAGINACEAE—PLANTAIN FAMILY

Antirrhinum coulterianum—Coulter's snapdragon Antirrhinum nuttallianum—violet snapdragon Collinsia concolor—Chinese houses Collinsia heterophylla—purple Chinese houses Penstemon centranthifolius—scarlet bugler Penstemon clevelandii—Cleveland's beardtongue Penstemon spectabilis—showy penstemon Veronica anagallis-aquatica—water speedwell

POLEMONIACEAE—PHLOX FAMILY Eriastrum densifolium ssp. elongatum—giant woollystar Eriastrum eremicum ssp. eremicum—desert woollystar Eriastrum sapphirinum ssp. sapphirinum—sapphire woollystar Gilia angelensis—chaparral gilia Gilia capitata ssp. abrotanifolia—bluehead gilia Gilia capitata—bluehead gilia Gilia diegensis—coastal gilia Gilia sp.—no common name Leptosiphon floribundus ssp. glaber—manyflower linanthus Leptosiphon floribundus—many-flower linanthus Leptosiphon lemmonii—Lemmon's linanthus Leptosiphon parviflorus—variable linanthus Linanthus bellus—desert beauty

Linanthus dianthiflorus—fringed linanthus Linanthus sp.—no common name Loeseliastrum matthewsii—desert calico Loeseliastrum schottii—Schott's calico Navarretia hamata—hooked pincushionplant

DUDEK

Phlox austromontana—mountain phlox Saltugilia caruifolia—caraway-leaved woodland-gilia

POLYGONACEAE—BUCKWHEAT FAMILY

Chorizanthe fimbriata var. laciniata—fringed spineflower

Chorizanthe fimbriata—fringed spineflower

Eriogonum davidsonii—Davidson's buckwheat

Eriogonum elongatum var. elongatum—longstem buckwheat

Eriogonum fasciculatum var. fasciculatum—California buckwheat

Eriogonum fasciculatum var. foliolosum—California buckwheat

Eriogonum fasciculatum var. polifolium—California buckwheat

Eriogonum thurberi—Thurber's buckwheat

Eriogonum wrightii var. membranaceum—bastardsage

RANUNCULACEAE—BUTTERCUP FAMILY

Clematis ligusticifolia—western white clematis

Clematis pauciflora—ropevine clematis

Delphinium parishii ssp. parishii—Parish's larkspur

Delphinium parishii ssp. subglobosum—Colorado Desert larkspur

Delphinium parishii—desert larkspur

Delphinium sp.—no common name

Ranunculus californicus—California buttercup

RHAMNACEAE—BUCKTHORN FAMILY

Ceanothus leucodermis—chaparral white thorn

Ceanothus palmeri—Palmer ceanothus

Ceanothus perplexans—desert ceanothus

Frangula californica—California coffee berry

Rhamnus ilicifolia—hollyleaf redberry

Ziziphus parryi—Parry's jujube

ROSACEAE—ROSE FAMILY

Adenostoma fasciculatum var. obtusifolium—chamise

Adenostoma fasciculatum—chamise

Adenostoma sparsifolium—redshank

Cercocarpus betuloides var. betuloides—birch leaf mountain mahogany

Cercocarpus minutiflorus—smooth mountain mahogany

Prunus fremontii—desert apricot

Prunus ilicifolia ssp. ilicifolia —holly leaf cherry

RUBIACEAE—MADDER FAMILY

Galium andrewsii ssp. andrewsii—Andrews' bedstraw Galium angustifolium—narrowleaf bedstraw

SALICACEAE—WILLOW FAMILY

Salix laevigata—red willow Salix lasiolepis—arroyo willow

SCROPHULARIACEAE—FIGWORT FAMILY

Scrophularia californica—California figwort

SOLANACEAE—NIGHTSHADE FAMILY

Datura wrightii—sacred thorn-apple Nicotiana attenuata—coyote tobacco Nicotiana quadrivalvis—Indian tobacco Solanum douglasii—greenspot nightshade Solanum parishii—Parish's nightshade Solanum xanti—chaparral nightshade

TAMARICACEAE—TAMARISK FAMILY

* Tamarix ramosissima—tamarisk

URTICACEAE—NETTLE FAMILY

Urtica dioica ssp. holosericea—stinging nettle

VIOLACEAE—Violet Family

Viola pedunculata—Johnny-jump-up Viola sp.—no common name

VISCACEAE—MISTLETOE FAMILY

Phoradendron bolleanum—Bollean mistletoe Phoradendron californicum—mesquite mistletoe

VASCULAR SPECIES

FERNS AND FERN ALLIES

PTERIDACEAE—BRAKE FAMILY

Pellaea mucronata—birdfoot cliffbrake

VASCULAR SPECIES

GYMNOSPERMS AND GNETOPHYTES

CUPRESSACEAE—CYPRESS FAMILY

Juniperus californica—California juniper

EPHEDRA CEAE—EPHEDRA FAMILY

Ephedra californica—California joint fir

PINACEAE—PINE FAMILY

Pinus monophylla—singleleaf pinyons

VASCULAR SPECIES

MONOCOTS

AGAVACEAE—AGAVE FAMILY

Hesperoyucca whipplei—chaparral yucca Yucca schidigera—Mojave yucca

CYPERACEAE—SEDGE FAMILY

Carex praegracilis—clustered field sedge Carex spissa—San Diego sedge

JUNCACEAE—RUSH FAMILY

Juncus bufonius—toad rush Juncus mexicanus—Mexican rush

LILIACEAE—LILY FAMILY

Calochortus concolor—goldenbowl mariposa lily Calochortus splendens—splendid mariposa lily

POACEAE—GRASS FAMILY

- * Avena barbata—slender oat
 Bothriochloa barbinodis—cane bluestem
- * Bromus diandrus—ripgut brome
- * Bromus madritensis ssp. madritensis—compact brome
- * Bromus madritensis ssp. rubens—red brome
- * Bromus tectorum—cheatgrass
 Distichlis spicata—salt grass
 Elymus elymoides var. brevifolius—squirreltail
 Elymus glaucus—blue wild rye
- * Festuca myuros—rat-tail fescue
- * Hordeum murinum ssp. glaucum—smooth barley
- * Hordeum murinum—mouse barley
 Melica imperfecta—smallflower melicgrass
 Muhlenbergia rigens—deer grass beds
- * Poa bulbosa ssp. bulbosa—bulbous bluegrass
- * Polypogon monspeliensis—annual rabbitsfoot grass
- * Schismus barbatus—common Mediterranean grass Sporobolus airoides—alkali sacaton



Stipa cernua—nodding needle grass
Stipa lepida—foothill needle grass
Stipa pulchra—purple needle grass
Stipa speciosa—desert needlegrass

THEMIDACEAE—BRODIAEA FAMILY

Dichelostemma capitatum ssp. capitatum—bluedicks

* Non-native species



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AMPHIBIAN

TOADS

BUFONIDAE—TRUE TOADS

Anaxyrus boreas—western toad

BIRD

BLACKBIRDS, ORIOLES AND ALLIES

ICTERIDAE—BLACKBIRDS

Euphagus cyanocephalus—Brewer's blackbird Icterus bullockii—Bullock's oriole Icterus cucullatus—hooded oriole Icterus parisorum—Scott's oriole Sturnella neglecta—western meadowlark

* *Molothrus ater*—brown-headed cowbird

BUSHTITS

AEGITHALIDAE—LONG-TAILED TITS AND BUSHTITS

Psaltriparus minimus—bushtit

CARDINALS, GROSBEAKS AND ALLIES

CARDINALIDAE—CARDINALS AND ALLIES

Pheucticus melanocephalus—black-headed grosbeak Piranga ludoviciana—western tanager

FALCONS

FALCONIDAE—CARACARAS AND FALCONS

Falco sparverius—American kestrel

FINCHES

FRINGILLIDAE—FRINGILLINE AND CARDUELINE FINCHES AND ALLIES

Haemorhous mexicanus—house finch Spinus lawrencei—Lawrence's goldfinch Spinus psaltria—lesser goldfinch Spinus tristis—American goldfinch



FLYCATCHERS

TYRANNIDAE—TYRANT FLYCATCHERS

Contopus sordidulus—western wood-pewee Empidonax difficilis—Pacific-slope flycatcher Empidonax hammondii—Hammond's flycatcher Myiarchus cinerascens—ash-throated flycatcher Sayornis nigricans—black phoebe Sayornis saya—Say's phoebe Tyrannus verticalis—western kingbird Tyrannus vociferans—Cassin's kingbird

GOATSUCKERS

CAPRIMULGIDAE—GOATSUCKERS

Phalaenoptilus nuttallii—common poorwill

HAWKS

ACCIPITRIDAE—HAWKS, KITES, EAGLES AND ALLIES

Accipiter cooperii—Cooper's hawk Accipiter striatus—sharp-shinned hawk Aquila chrysaetos—golden eagle Buteo jamaicensis—red-tailed hawk Buteo lineatus—red-shouldered hawk Circus hudsonius—northern harrier

HUMMINGBIRDS

TROCHILIDAE—HUMMINGBIRDS

Archilochus alexANDri—black-chinned hummingbird Calypte anna—Anna's hummingbird Calypte costae—Costa's hummingbird Selasphorus rufus—rufous hummingbird Selasphorus sp.—Allen's/rufous hummingbird

JAYS, MAGPIES AND CROWS

CORVIDAE—CROWS AND JAYS

Aphelocoma californica—California scrub-jay Corvus brachyrhynchos—American crow Corvus corax—common raven Cyanocitta stelleri—Steller's jay

KINGLETS

REGULIDAE—KINGLETS

Regulus calendula—ruby-crowned kinglet

LARKS

ALAUDIDAE—LARKS

Eremophila alpestris actia—California horned lark

MOCKINGBIRDS AND THRASHERS

MIMIDAE—MOCKINGBIRDS AND THRASHERS

Mimus polyglottos—northern mockingbird Oreoscoptes montanus—sage thrasher Toxostoma redivivum—California thrasher

NEW WORLD QUAIL

ODONTOPHORIDAE—NEW WORLD QUAIL

Callipepla californica—California quail Oreortyx pictus—mountain quail

NEW WORLD VULTURES

CATHARTIDAE—CARDINALS AND ALLIES

Cathartes aura—turkey vulture

NUTHATCHES

SITTIDAE—NUTHATCHES

Sitta carolinensis—white-breasted nuthatch

OLD WORLD WARBLERS AND GNATCATCHERS

SYLVIIDAE—SYLVIID WARBLERS

Polioptila caerulea—blue-gray gnatcatcher

OWLS

TYTONIDAE—BARN OWLS

Tyto alba—barn owl

STRIGIDAE—TYPICAL OWLS

Bubo virginianus—great horned owl



PIGEONS AND DOVES

COLUMBIDAE—PIGEONS AND DOVES

Patagioenas fasciata—bAND-tailed pigeon

Zenaida macroura—mourning dove

* Streptopelia decaocto—Eurasian collared-dove

Zenaida asiatica—white-winged dove

QUAILS, PHEASANTS AND RELATIVES

PHASIANIDAE—PARTRIGES, GROUSE, TURKEYS AND OLD WORLD QUAIL

Meleagris gallopavo—wild turkey

ROADRUNNERS AND CUCKOOS

CUCULIDAE—CUCKOOS, ROADRUNNERS AND ANIS

Geococcyx californianus—greater roadrunner

SHRIKES

LANIIDAE—SHRIKES

Lanius ludovicianus—loggerhead shrike

SILKY FLYCATCHERS

PTILOGONATIDAE—SILKY-FLYCATCHERS

Phainopepla nitens—phainopepla

STARLINGS AND ALLIES

STURNIDAE—STARLINGS

* Sturnus vulgaris—European starling

SWALLOWS

HIRUNDINIDAE—SWALLOWS

Hirundo rustica—barn swallow Petrochelidon pyrrhonota—cliff swallow Stelgidopteryx serripennis—northern rough-winged swallow

SWIFTS

APODIDAE—SWIFTS

Aeronautes saxatalis—white-throated swift



THRUSHES

TURDIDAE—THRUSHES

Catharus ustulatus—Swainson's thrush Sialia mexicana—western bluebird Turdus migratorius—American robin

TITMICE

PARIDAE—CHICKADEES AND TITMICE

Baeolophus inornatus—oak titmouse

VIREOS

VIREONIDAE—VIREOS

Vireo gilvus—warbling vireo

WOOD WARBLERS AND ALLIES

PARULIDAE—WOOD-WARBLERS

Cardellina pusilla—Wilson's warbler
Oreothlypis celata—orange-crowned warbler
Oreothlypis ruficapilla—Nashville warbler
Setophaga coronata—yellow-rumped warbler
Setophaga nigrescens—black-throated gray warbler
Setophaga occidentalis—hermit warbler
Setophaga petechia—yellow warbler
Setophaga townsendi—Townsend's warbler

WOODPECKERS

PICIDAE—WOODPECKERS AND ALLIES

Colaptes auratus—northern flicker Melanerpes formicivorus—acorn woodpecker Picoides nuttallii—Nuttall's woodpecker Picoides scalaris—ladder-backed woodpecker

WRENS

TROGLODYTIDAE—WRENS

Campylorhynchus brunneicapillus—cactus wren Catherpes mexicanus—canyon wren Salpinctes obsoletus—rock wren Thryomanes bewickii—Bewick's wren Troglodytes aedon—house wren



WRENTITS

TIMALIIDAE—BABBLERS

Chamaea fasciata—wrentit

NEW WORLD SPARROWS

PASSERELLIDAE—NEW WORLD SPARROWS

Aimophila ruficeps canescens—Southern California rufous-crowned sparrow

Aimophila ruficeps—rufous-crowned sparrow

Amphispiza bilineata—black-throated sparrow

Artemisiospiza belli belli —Bell's sage sparrow

Artemisiospiza nevadensis—sagebrush sparrow

Junco hyemalis—dark-eyed junco

Melospiza melodia—song sparrow

Melozone crissalis—California towhee

Pipilo maculatus—spotted towhee

Spizella atrogularis—black-chinned sparrow

Spizella breweri—Brewer's sparrow

Spizella passerina—chipping sparrow

Zonotrichia leucophrys—white-crowned sparrow

INVERTEBRATE

BUTTERFLIES

E-6

LYCAENIDAE—BLUES, HAIRSTREAKS AND COPPERS

Atlides halesus—great purple hairstreak

Brephidium exile—western pygmy-blue

Callophrys augustinus—brown elfin

Callophrys dumetorum affinis—immaculate bramble hairstreak

Callophrys dumetorum—bramble hairstreak

Callophrys perplexa—Perplexing hairstreak

Euphilotes battoides bernardino—Bernardino square-spotted blue

Everes amyntula—western tailed-blue

Glaucopsyche lygdamus australis—southern blue

Hemiargus ceraunus gyas—Edward's blue

Hemiargus isola—Reakirt's blue

Icaricia acmon acmon—Acmon blue

Leptotes marina—marine blue

Lycaeides melissa—Melissa blue

Philotes sonorensis—Sonoran blue

Strymon melinus—gray hairstreak

Blue sp.—no common name

NYMPHALIDAE—BRUSH-FOOTED BUTTERFLIES

Adelpha bredowii—California sister

Chlosyne californica—California patch

Chlosyne gabbii—Gabb's checkerspot

Danaus gilippus—queen

Danaus plexippus—monarch

Euphydryas chalcedona chalcedona—Chalcedon variable checkerspot

Euphydryas editha quino—quino checkerspot butterfly

Junonia coenia—common buckeye

Limenitis lorquini—Lorquin's admiral

Nymphalis antiopa—mourning cloak

Nymphalis californica—California tortoiseshell

Vanessa annabella—west coast lady

Vanessa cardui—painted lady

Vanessa sp.—lady

RIODINIDAE—METALMARKS

Apodemia mormo virgulti—Behr's metalmark

HESPERIIDAE—SKIPPERS

Copaeodes aurantiacus—orange skipperling

Erynnis brizo—sleepy duskywing

Erynnis funeralis—funereal duskywing

Erynnis propertius—Propertius duskywing

Erynnis tristis—mournful duskywing

Erynnis sp.—duskywing

Hylephila phyleus—fiery skipper

Pholisora catullus—common sootywing

Pyrgus albescens—white checkered-skipper

PAPILIONIDAE—SWALLOWTAILS

Papilio eurymedon—pale swallowtail

Papilio rutulus—western tiger swallowtail

PIERIDAE—WHITES AND SULFURS

Anthocharis cethura—desert orangetip

Anthocharis sara sara—Pacific sara orangetip

Colias eurydice—California dogface

Colias eurytheme—orange sulphur

Colias harfordii—Harford's sulphur

Euchloe hyantis—California marble

Euchloe hyantis lotta—desert pearly marble

Eurema nicippe—sleepy orange

Nathalis iole—dainty sulphur

Phoebis sennae—cloudless sulphur

Pieris rapae—cabbage white

Pontia beckerii—Becker's white

Pontia protodice—checkered white Pontia sisymbrii—spring white Orangetip sp.—no common name Sulphur sp.—no common name White sp.—no common name

MOTHS

SPHINGIDAE—HAWK MOTHS

Hyles lineata—white-lined phinx moth

ANTS

FORMICIDAE—ANTS

Harvester ant sp.

MAMMALS

BATS

MOLOSSIDAE—FREE-TAILED BATS

Eumops perotis californicus—western mastiff bat Nyctinomops femorosaccus—pocketed free-tailed bat Nyctinomops macrotis—big free-tailed bat Tadarida brasiliensis—Brazilian free-tailed bat

VESPERTILIONIDAE—EVENING BATS

Antrozous pallidus—pallid bat
Corynorhinus townsendii—Townsend's big-eared bat
Eptesicus fuscus—big brown bat
Lasiurus cinereus—hoary bat

Lasiurus xanthinus—western yellow bat Myotis californicus—Californian myotis Myotis ciliolabrum—western small-footed myotis Myotis yumanensis—Yuma myotis Parastrellus hesperus—canyon bat

CANIDS

CANIDAE—WOLVES AND FOXES

Canis latrans—coyote

CATS

FELIDAE—CATS

Lynx rufus—bobcat *Puma concolor*—cougar



HARES AND RABBITS

LEPORIDAE—HARES AND RABBITS

Lepus californicus bennettii—San Diego black-tailed jackrabbit Lepus californicus—black-tailed jackrabbit Sylvilagus audubonii—desert cottontail Sylvilagus bachmani—brush rabbit

KANGAROO RATS

HETEROMYIDAE—POCKET MICE AND KANGAROO RATS

Dipodomys sp.—kangaroo rat (sign only)

MUSTELIDS

MEPHITIDAE—SKUNKS

Mephitis mephitis—striped skunk

POCKET GOPHERS

GEOMYIDAE—POCKET GOPHERS

Thomomys bottae—Botta's pocket gopher

SQUIRRELS

SCIURIDAE—SQUIRRELS

Ammospermophilus leucurus—white-tailed antelope squirrel Spermophilus (Otospermophilus) beecheyi—California ground squirrel Tamias merriami—Merriam's chipmunk Tamias obscurus—California chipmunk

UNGULATES

CERVIDAE—DEERS

Odocoileus hemionus-mule deer

RATS, MICE AND VOLES

CRICETIDAE—RATS, MICE AND VOLES

Neotoma lepida intermedia—San Diego desert woodrat Neotoma lepida—desert woodrat Neotoma sp.—woodrat Microtus sp.—vole



REPTILES

LIZARDS

PHRYNOSOMATIDAE—IGUANID LIZARDS

Callisaurus draconoides—zebra-tailed lizard Phrynosoma blainvillii—Blainville's horned lizard Sceloporus occidentalis—western fence lizard Sceloporus orcutti—granite spiny lizard Uta stanburiana—common side-blotched lizard

ANGUIDAE—ALLIGATOR LIZARDS

Elgaria multicarinata—southern alligator lizard

SCINCIDAE—SKINKS

Plestiodon gilberti—Gilbert's skink

TEIIDAE—WHIPTAIL LIZARDS

Aspidoscelis tigris stejnegeri—San Diegan tiger whiptail

CROTAPHYTIDAE—COLLARED LIZARDS

Gambelia wislizenii—long-nosed leopard lizard

SNAKES

COLUBRIDAE—COLUBRID SNAKES

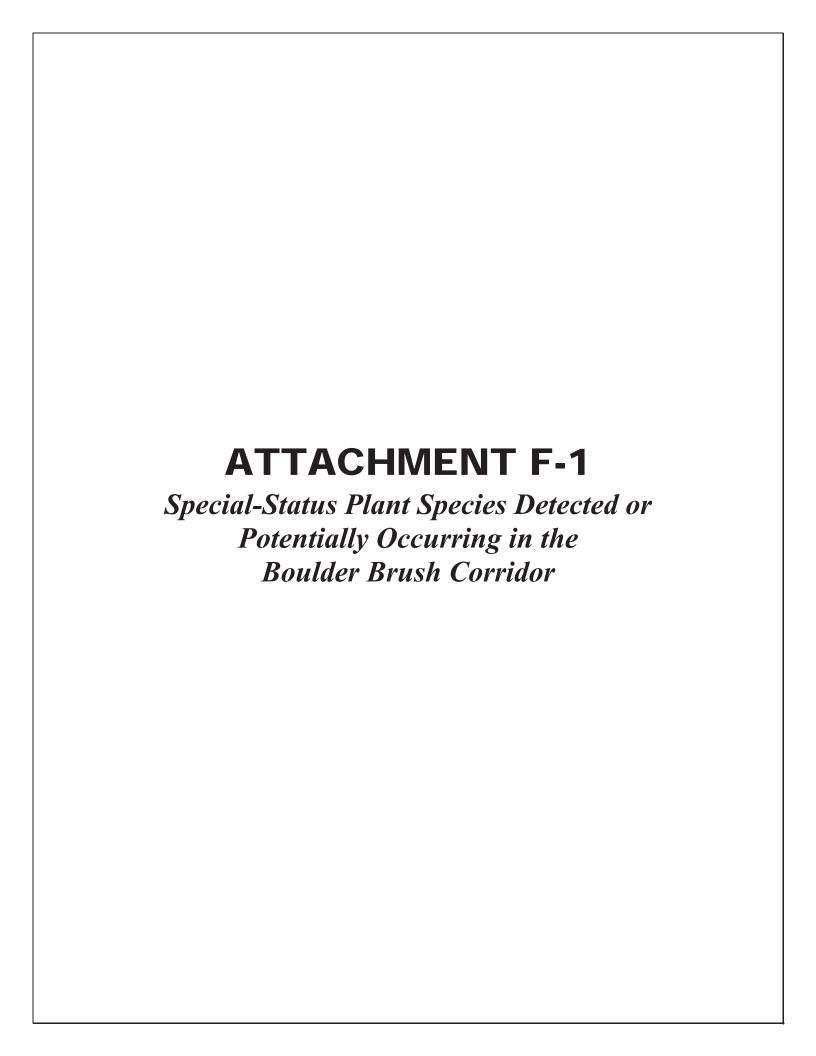
Coluber lateralis—striped racer Pituophis catenifer—gophersnake Lampropeltis sp.—kingsnake

VIPERIDAE—VIPERS

Crotalus oreganus—western rattlesnake

* Non-native species





APPENDIX F-1 Special-Status Plant Species Detected or Potentially Occurring in the Boulder Brush Corridor

Scientific Name	Common Name	Status (Federal/State/ CRPR)	East County MSCP/ County of San Diego MSCP	Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet)	Potential to Occur
Astragalus douglasii var. perstrictus	Jacumba milk-vetch	None/None/1B.2	Covered/List A	Chaparral, cismontane woodland, pinyon and juniper woodland, riparian scrub, valley and foothill grassland; rocky/perennial herb/Apr–June/2,950–4,495	Observed. This species was observed throughout the biological study area.
Caulanthus simulans	Payson's jewelflower	None/None/4.2	Covered/List D	Chaparral, coastal scrub; sandy, granitic/annual herb/(Feb)Mar–May(June)/295–7,220	Observed. Payson's jewelflower was observed in March and April 2019 during 2019 the Quino checkerspot butterfly survey season. It was not observed during the 2017 or 2018 rare plant surveys. Its locations were not generally not mapped.
Deinandra floribunda	Tecate tarplant	None/None/1B.2	Covered/List A	Chaparral, coastal scrub/annual herb/Aug-Oct/225-4,005	Observed. This species was observed in numerous washes in the study area, including the eastern and southern portions.
<i>Delphinium parishii</i> ssp. <i>subglobosum</i>	Colorado Desert larkspur	None/None/4.3	None/List D	Chaparral, cismontane woodland, pinyon and juniper woodland, Sonoran Desert scrub/perennial herb/Mar–June/1,965–5,905	Observed. This species was observed in several locations throughout the biological study area, including the southern, eastern, and central portions.
Geraea viscida	sticky geraea	None/None/2B.2	Covered/List B	Chaparral (often in disturbed areas)/perennial herb/(Apr)May– June/1,475–5,575	Observed. This species was observed in several locations throughout the biological study area, including the central and northern portions.
Hesperocyparis forbesii	Tecate cypress	None/None/1B.1	Covered/List A	Closed-cone coniferous forest, chaparral; clay, gabbroic or metavolcanic/perennial evergreen tree/N.A./260–4,920	Observed. This species was observed in the northern portion of the biological study area.
Linanthus bellus	desert beauty	None/None/2B.1	Covered/List B	Chaparral (sandy)/annual herb/Apr-May/3,280-4,595	Observed. This species was observed throughout the biological study area.
Streptanthus campestris	southern jewelflower	None/None/1B.3	None/List A	Chaparral, lower montane coniferous forest, pinyon and juniper woodland; rocky/perennial herb/(Apr)May–July/2,950–7,545	Observed. This species was observed in several locations throughout the biological study area.

Status Legend

CRPR: California Rare Plant Rank 1B: Plants rare, threatened, or endangered in California and elsewhere

- 2B: Plants rare, threatened, or endangered in California, but more common elsewhere
- 3: Plants about which more information is needed—A Review List
- 4: Plants of limited distribution—A Watch List

- .1: Seriously threatened in California (more than 80% of occurrences threatened/high degree and immediacy of threat)
 .2: Fairly threatened in California (20%–80% occurrences threatened/moderate degree and immediacy of threat)
- .3: Not very threatened in California (<20% of occurrences threatened/low degree and immediacy of threat or no current threats known)

County of San Diego Multiple Species Conservation Program (MSCP), East County Plan

Covered: Covered under the plan

None: Not covered

County of San Diego MSCP Listed Species

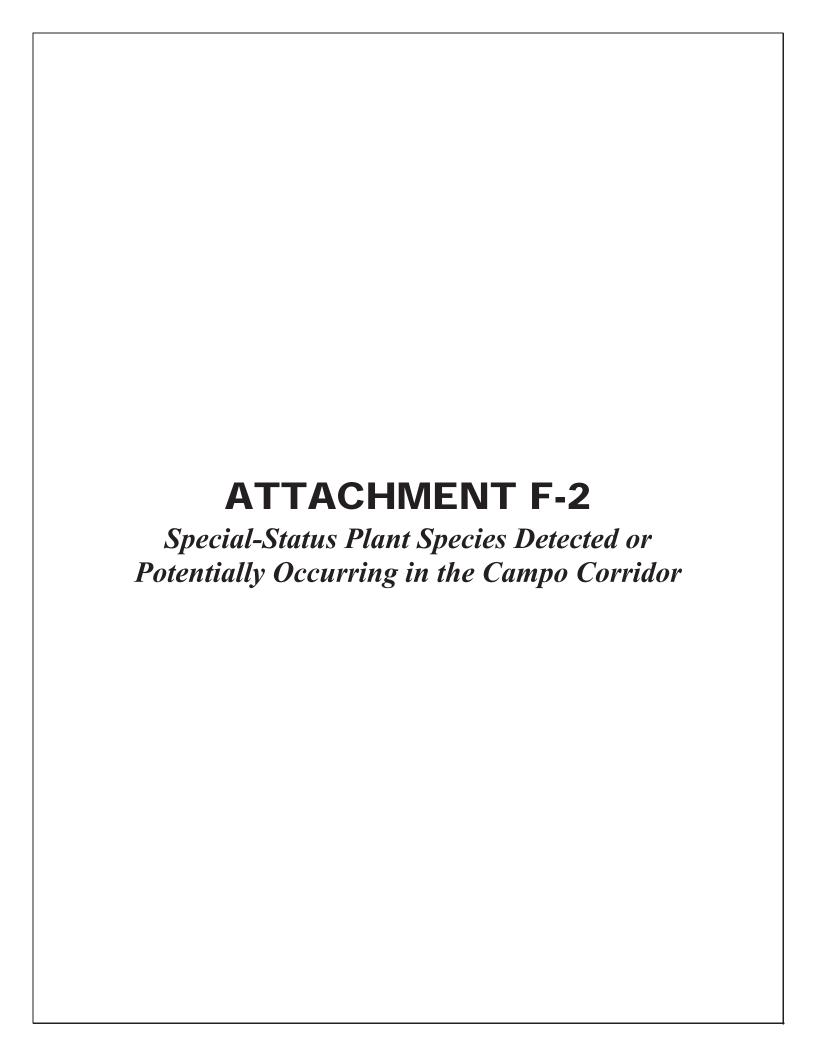
List A: Plants rare, threatened, or endangered in California or elsewhere

List B: Plants rare, threatened, or endangered in California but more common elsewhere

List D: Plants of limited distribution and are uncommon, but not presently rare or endangered

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APPENDIX F-2 Special-Status Plant Species Detected or Potentially Occurring in the Campo Corridor

			1		
Scientific Name	Common Name	Status (Federal/St ate/ CRPR)	East County MSCP/ County of San Diego MSCP	Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet)	Potential to Occur
Astragalus douglasii var. perstrictus	Jacumba milk-vetch	None/None/ 1B.2	Covered/List A	Chaparral, cismontane woodland, pinyon and juniper woodland, riparian scrub, valley and foothill grassland; rocky/perennial herb/Apr–June/2,950– 4,495	Observed during surveys conducted in spring and fall of 2010 and spring 2011 for the Shu'luuk Wind Project (AECOM 2012), which is located in the same general area as the study area.
Caulanthus simulans	Payson's jewelflower	None/None/ 4.2	Covered/List D	Chaparral, coastal scrub; sandy, granitic/annual herb/(Feb)Mar– May(June)/295–7,220	Observed during surveys conducted in spring and fall of 2010 and spring 2011 for the Shu'luuk Wind Project (AECOM 2012), which is located in the same general area as the study area.
Chorizanthe leptotheca	Peninsular spineflower	None/None/ 4.2	None/List D	Chaparral, coastal scrub, lower montane coniferous forest; alluvial fan, granitic/annual herb/May– Aug/980–6,235	Observed during surveys conducted in spring and fall of 2010 and spring 2011 for the Shu'luuk Wind Project (AECOM 2012), which is located in the same general area as the study area.
Deinandra floribunda	Tecate tarplant	None/None/ 1B.2	Covered/List A	Chaparral, coastal scrub/annual herb/Aug– Oct/225–4,005	High potential to occur. This species was observed in numerous washes in the Boulder Brush study area and suitable habitat occurs on site.
Delphinium parishii ssp. subglobosum	Colorado Desert larkspur	None/None/ 4.3	None/List D	Chaparral, cismontane woodland, pinyon and juniper woodland, Sonoran Desert scrub/perennial herb/Mar–June/1,965– 5,905	Observed during surveys conducted in spring and fall of 2010 and spring 2011 for the Shu'luuk Wind Project (AECOM 2012), which is located in the same general area as the study area.
Geraea viscida	sticky geraea	None/None/ 2B.2	Covered/List B	Chaparral (often in disturbed areas)/perennial herb/(Apr)May– June/1,475–5,575	Observed during surveys conducted in spring and fall of 2010 and spring 2011 for the Shu'luuk Wind Project (AECOM 2012), which is located in the same general area as the study area.
Hesperocypa ris forbesii	Tecate cypress	None/None/ 1B.1	Covered/List A	Closed-cone coniferous forest, chaparral; clay, gabbroic or metavolcanic/perennial evergreen tree/N.A./260– 4,920	Observed during surveys conducted in spring and fall of 2010 and spring 2011 for the Shu'luuk Wind Project (AECOM 2012), which is located in the same general area as the study area.

APPENDIX F-2 (Continued)

Scientific Name	Common Name	Status (Federal/St ate/ CRPR)	East County MSCP/ County of San Diego MSCP	Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet)	Potential to Occur
Lathyrus splendens	pride-of- California	None/None/ 4.3	Covered/List D	Chaparral/perennial herb/Mar-June/655-5,005	Observed during surveys conducted in spring and fall of 2010 and spring 2011 for the Shu'luuk Wind Project (AECOM 2012), which is located in the same general area as the study area.
Linanthus bellus	desert beauty	None/None/ 2B.1	Covered/List B	Chaparral (sandy)/annual herb/Apr-May/3,280- 4,595	High potential to occur. This species was observed throughout the biological study area for Boulder Brush and suitable habitat occurs on site.
Streptanthus campestris	southern jewelflower	None/None/ 1B.3	None/List A	Chaparral, lower montane coniferous forest, pinyon and juniper woodland; rocky/perennial herb/(Apr)May–July/2,950–7,545	Observed during surveys conducted in spring and fall of 2010 and spring 2011 for the Shu'luuk Wind Project (AECOM 2012), which is located in the same general area as the study area.

Status Legend

CRPR: California Rare Plant Rank 1B: Plants rare, threatened, or endangered in California and elsewhere

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Threat Rank

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- .3: Not very threatened in California (<20% of occurrences threatened/low degree and immediacy of threat or no current threats known)

County of San Diego Multiple Species Conservation Program (MSCP), East County Plan

Covered: Covered under the plan

None: Not covered

County of San Diego MSCP Listed Species

List A: Plants rare, threatened, or endangered in California or elsewhere

List B: Plants rare, threatened, or endangered in California but more common elsewhere
List D: Plants of limited distribution and are uncommon, but not presently rare or endangered

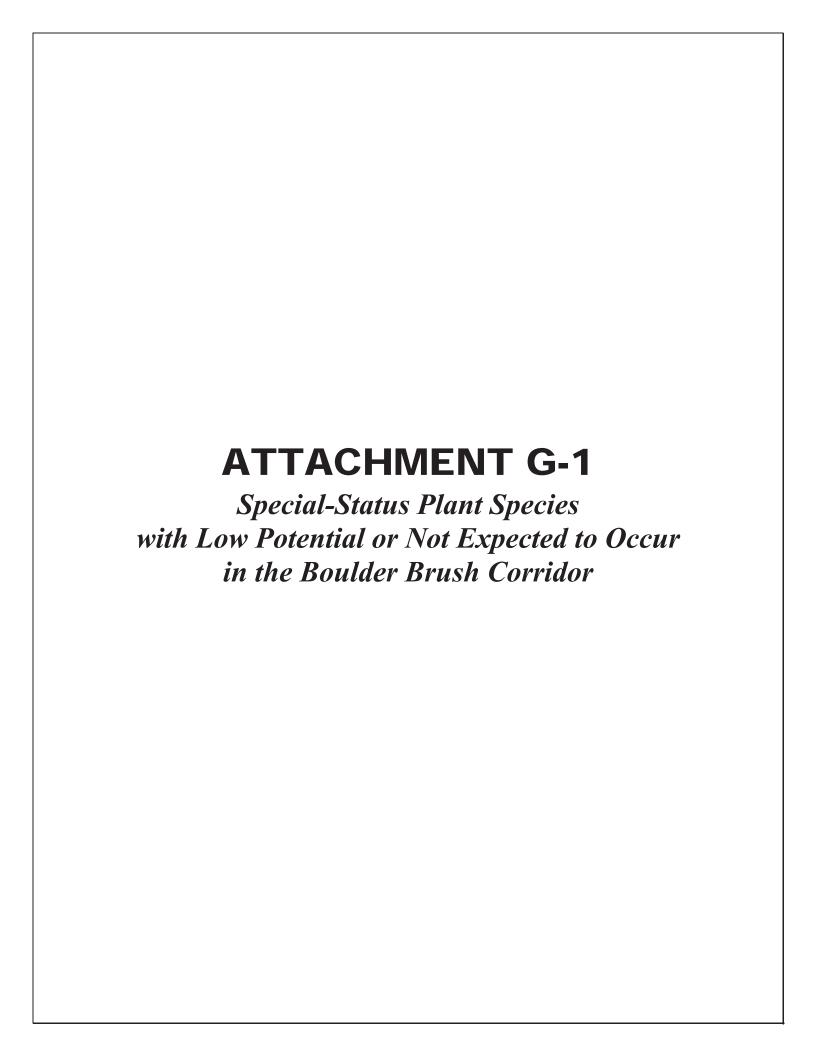
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APPENDIX G-1 Special-Status Plant Species with Low Potential or Not Expected to Occur in the Boulder Brush Corridor

Scientific Name	Common Name	Status (Federal/State/ CRPR)	East County MSCP/ County of San Diego	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Potential to Occur
Abronia maritima	red sand- verbena	None/None/4.2	None/List D	Coastal dunes/perennial herb/Feb-Nov/0-330	Not expected to occur. Red sand verbena occurs only on well-developed beach dunes (Reiser 2001). Beach dunes are more than 65 miles from the site. Generally, the site is outside of the species' known elevation range and there is no suitable vegetation present. Also, does not occur in vicinity (CDFW 2018; CNPS 2018).
Abronia villosa var. aurita	chaparral sand- verbena	None/None/1B.1	None/List A	Chaparral, coastal scrub, desert dunes; sandy/annual herb/(Jan)Mar-Sep/245- 5,250	Low potential to occur. Chaparral sand verbena has been documented around Camp Pendleton and near Fallbrook, California (San Diego Plant Atlas 2018). Chaparral sand-verbena is more likely to be found in sandy floodplains (Reiser 2001). This species would have been observed if present; focused surveys were conducted during the species' blooming period.
Acanthomintha ilicifolia	San Diego thorn- mint	FT/SE/1B.1	Covered/List A	Chaparral, coastal scrub, valley and foothill grassland, vernal pools; clay, openings/annual herb/Apr– June/30–3,150	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018). Friable clay soils (cracked clay) are the typical habitat for San Diego thorn-mint (Reiser 2001). Cracked clay soils were not present in the survey area. In addition, San Diego thorn mint is most often associated with small flowered morning glory (<i>Convolvulus simulans</i>) (Reiser 2001). Small flowered morning glory was not present within the survey area.
Acmispon haydonii	pygmy lotus	None/None/1B.3	Covered/List A	Pinyon and juniper woodland, Sonoran desert scrub; rocky/perennial herb/Jan–June/1,705–3,935	Low potential to occur. This species would have been observed if present; focused surveys were conducted during the species' blooming period. Pygmy lotus occurs east of Jacumba, California. Pygmy lotus is more likely to occur in the high desert and desert region (San Diego Plant Atlas 2018).



Scientific Name	Common Name	Status (Federal/State/ CRPR)	East County MSCP/ County of San Diego	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Potential to Occur
Acmispon prostratus	Nuttall's acmispon	None/None/1B.1	None/List A	Coastal dunes, coastal scrub (sandy)/annual herb/Mar– June(July)/0–35	Not expected to occur. Nuttall's acmispon occurs west of Interstate (I) 15 (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Adolphia californica	California adolphia	None/None/2B.1	None/List B	Chaparral, coastal scrub, valley and foothill grassland; clay/perennial deciduous shrub/ Dec-May/30-2,430	Not expected to occur. California adolphia occurs west of El Cajon, California (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Agave shawii var. shawii	Shaw's agave	None/None/2B.1	None/List B	Coastal bluff scrub, coastal scrub; maritime succulent scrub/perennial leaf succulent/Sep-May/5-395	Not expected to occur. Shaw's agave occurs west of I-5 near the beach (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Ambrosia chenopodiifolia	San Diego bur- sage	None/None/2B.1	None/List B	Coastal scrub/perennial shrub/Apr-June/180-510	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Ambrosia pumila	San Diego ambrosia	FE/None/1B.1	None/List A	Chaparral, coastal scrub, valley and foothill grassland, vernal pools; sandy loam or clay, often in disturbed areas, sometimes alkaline/perennial rhizomatous herb/Apr–Oct/65–1,360	Not expected to occur. San Diego ambrosia occurs in creek beds and dry drainages with a protective tree canopy (Reiser 2001). San Diego ambrosia occurs west of Crest, California (San Diego Plant Atlas 2018). This habitat was not present in the survey area. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Androsace elongata ssp. acuta	California androsace	None/None/4.2	None/List D	Chaparral, cismontane woodland, coastal scrub, meadows and seeps, pinyon and juniper woodland, valley and foothill grassland/annual herb/Mar–June/490–4,280	Not expected to occur. California androsace occurs north of Cuyamaca Rancho State Park (San Diego Plant Atlas 2018). California androsace grows in open montane grassy meadows within Cuyamaca Rancho State Park (Reiser 2001). Does not occur in vicinity (CDFW 2018; CNPS 2018).



Scientific Name	Common Name	Status (Federal/State/ CRPR)	East County MSCP/ County of San Diego	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Potential to Occur
Aphanisma blitoides	aphanisma	None/None/1B.2	None/List A	Coastal bluff scrub, coastal dunes, coastal scrub; sandy or gravelly/annual herb/Feb–June/0–1,000	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Arctostaphylos glandulosa ssp. crassifolia	Del Mar manzanita	FE/None/1B.1	None/List A	Chaparral (maritime, sandy)/perennial evergreen shrub/Dec-June/0-1,200	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Arctostaphylos otayensis	Otay manzanita	None/None/1B.2	Covered/List A	Chaparral, cismontane woodland; metavolcanic/perennial evergreen shrub/Jan– Apr/900–5,575	Not expected to occur. Otay manzanita occurs west of Dulzura, California, within the Otay area and north up to Rancho San Diego, California (San Diego Plant Atlas 2018). Does not occur in vicinity (CDFW 2018; CNPS 2018). Otay manzanita occurs on metavolcanic peaks and soils that are shallow with exposed rock (Reiser 2001).
Arctostaphylos rainbowensis	Rainbow manzanita	None/None/1B.1	None/List A	Chaparral/perennial evergreen shrub/Dec– Mar/670–2,200	Not expected to occur. Rainbow manzanita occurs north of Escondido, and the majority of the population is near Rainbow, California, and Pala, California (San Diego Plant Atlas 2018). The project site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Artemisia palmeri	San Diego sagewort	None/None/4.2	None/List D	Chaparral, coastal scrub, riparian forest, riparian scrub, riparian woodland; sandy, mesic/perennial deciduous shrub/(Feb)May–Sep/45–3,000	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Asplenium vespertinum	western spleenwort	None/None/4.2	None/List D	Chaparral, cismontane woodland, coastal scrub; rocky/perennial rhizomatous herb/Feb–June/590–3,280	Not expected to occur. The site is outside of the species' known elevation range.



Scientific Name	Common Name	Status (Federal/State/ CRPR)	East County MSCP/ County of San Diego	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Potential to Occur
Astragalus crotalariae	Salton milk- vetch	None/None/4.3	Covered/List D	Sonoran desert scrub (sandy or gravelly)/perennial herb/Jan-Apr/195-820	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Astragalus deanei	Dean's milk- vetch	None/None/1B.1	Covered/List A	Chaparral, cismontane woodland, coastal scrub, riparian forest/perennial herb/Feb-May/245-2,280	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Astragalus insularis var. harwoodii	Harwood's milk- vetch	None/None/2B.2	Covered/List B	Desert dunes, Mojavean desert scrub; sandy or gravelly/annual herb/Jan– May/0–2,330	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Astragalus lentiginosus var. borreganus	Borrego milk- vetch	None/None/4.3	Covered/List D	Mojavean desert scrub, Sonoran desert scrub; sandy/annual herb/ Feb-May/95-2,935	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Astragalus magdalenae var. peirsonii	Peirson's milk- vetch	FT/SE/1B.2	None/List A	Desert dunes/perennial herb/Dec-Apr/195-740	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Astragalus nutans	Providence Mountains milk- vetch	None/None/4.3	None/None	Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodland, Sonoran desert scrub; sandy or gravelly/annual herb/Mar– June(Oct)/1,475–6,400	Low potential to occur. This species would have been observed if present; focused surveys were conducted during the species' blooming period. Has been documented within the Sonoran Desert (Calflora 2018). The San Diego Plant Atlas does not have any collections of Providence Mountains milk-vetch within San Diego County (San Diego Plant Atlas 2018).
Astragalus oocarpus	San Diego milk- vetch	None/None/1B.2	Covered/List A	Chaparral (openings), cismontane woodland/perennial herb/May–Aug/1,000–5,000	Low potential to occur. Collections of San Diego milk- vetch are west of State Route (SR) 79 near Cuyamaca Rancho State Park and north of this area (San Diego Plant Atlas 2018). This perennial herb would have been observed during focused surveys if present.



Scientific Name	Common Name	Status (Federal/State/ CRPR)	East County MSCP/ County of San Diego	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Potential to Occur
Astragalus pachypus var. jaegeri	Jaeger's bush milk-vetch	None/None/1B.1	None/List A	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland; sandy or rocky/perennial shrub/Dec-June/1,195- 3,200	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Astragalus tener var. titi	coastal dunes milk-vetch	FE/SE/1B.1	None/List A	Coastal bluff scrub (sandy), coastal dunes, coastal prairie (mesic); often vernally mesic areas/annual herb/Mar–May/0–165	Not expected to occur. Occurs on coastal dunes (Reiser 2001). The site is outside of the species' known elevation range and there is no suitable vegetation present. Also does not occur in vicinity (CDFW 2018; CNPS 2018).
Atriplex coulteri	Coulter's saltbush	None/None/1B.2	None/List A	Coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland; alkaline or clay/perennial herb/Mar–Oct/5–1,510	Not expected to occur. Coulter's saltbush is more typical on seabluff habitat (Reiser 2001). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Atriplex pacifica	South Coast saltscale	None/None/1B.2	None/List A	Coastal bluff scrub, coastal dunes, coastal scrub, playas/annual herb/Mar-Oct/0-460	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Atriplex parishii	Parish's brittlescale	None/None/1B.1	None/List A	Chenopod scrub, playas, vernal pools; alkaline/annual herb/June-Oct/80-6,235	Not expected to occur. No suitable vegetation present. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Atriplex serenana var. davidsonii	Davidson's saltscale	None/None/1B.2	None/List A	Coastal bluff scrub, coastal scrub; alkaline/annual herb/Apr-Oct/30-655	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Ayenia compacta	California ayenia	None/None/2B.3	None/List B	Mojavean desert scrub, Sonoran desert scrub; rocky/perennial herb/Mar– Apr/490–3,595	Low potential to occur. This species is only known from areas north of Mount Laguna (San Diego Plant Atlas 2018). Rocky canyons and desert arroyos are the preferred habitat of California ayenia. California ayenia prefers the periphery of sandy washes (Reiser 2001).



Scientific Name	Common Name	Status (Federal/State/ CRPR)	East County MSCP/ County of San Diego	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Potential to Occur
Azolla microphylla	Mexican mosquito fern	None/None/4.2	None/List D	Marshes and swamps (ponds, slow water)/annual / perennial herb/Aug/95–330	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present. Also does not occur in vicinity (CDFW 2018; CNPS 2018).
Baccharis vanessae	Encinitas baccharis	FT/SE/1B.1	None/List A	Chaparral (maritime), cismontane woodland; sandstone/perennial deciduous shrub/ Aug,Oct,Nov/195–2,360	Not expected to occur. Generally occurs northwest of Alpine, California (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Berberis fremontii	Fremont barberry	None/None/2B.3	Covered/List C	Joshua tree woodland, pinyon and juniper woodland; rocky, sometimes granitic/perennial evergreen shrub/Mar–May/3,755–5,645	Low potential to occur. Occurs in high desert chaparral and high desert badlands on fairly level terrain with granitic boulder fields (Reiser 2001). Fremont barberry is extremely rare (Reiser 2001). This perennial evergreen shrub would have been observed during focused surveys if present. Has not been collected in the San Diego Plant Atlas (2018).
Berberis higginsiae	Higgins barberry	None/None/3.2	Covered/None	Chaparral, Sonoran desert scrub; rocky, sometimes granitic/perennial shrub/Mar-Apr/2,620-3,495	Not expected to occur. The site is outside of the species' known elevation range.
Berberis nevinii	Nevin's barberry	FE/SE/1B.1	None/List A	Chaparral, cismontane woodland, coastal scrub, riparian scrub; sandy or gravelly/ perennial evergreen shrub/(Feb)Mar–June/225– 2,705	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Bergerocactus emoryi	golden-spined cereus	None/None/2B.2	None/List B	Closed-cone coniferous forest, chaparral, coastal scrub; sandy/perennial stem succulent/May–June/5– 1,295	Not expected to occur. Golden-spined cereus occurs near the beach or within Otay (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).



Scientific Name	Common Name	Status (Federal/State/ CRPR)	East County MSCP/ County of San Diego	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Potential to Occur
Bloomeria clevelandii	San Diego goldenstar	None/None/1B.1	Covered/List A	Chaparral, coastal scrub, valley and foothill grassland, vernal pools; clay/perennial bulbiferous herb/Apr– May/160–1,525	Not expected to occur. San Diego goldenstar occurs west of Alpine, California (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Boechera hirshbergiae	Hirshberg's rockcress	None/None/1B.2	None/List A	Pebble (Pavement) plain/perennial herb/Mar– May/4,590–4,640	Not expected to occur. Occurs north of Cuyamaca Rancho State Park (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range and there is no suitable vegetation present. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Boykinia rotundifolia	round leaved boykinia	None/None/None	None/None	Streambanks//May-July/0- 6,562	Not expected to occur. This species is known north of Julian in San Diego County (San Diego Plant Atlas 2018).
Brodiaea filifolia	thread-leaved brodiaea	FT/SE/1B.1	None/List A	Chaparral (openings), cismontane woodland, coastal scrub, playas, valley and foothill grassland, vernal pools; often clay/perennial bulbiferous herb/Mar– June/80–3,675	Not expected to occur. Thread-leaved Brodiaea occurs north of Rancho Santa Fe, California, and is more likely to be found near Camp Pendleton, California (San Diego Plant Atlas 2018). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Brodiaea orcuttii	Orcutt's brodiaea	None/None/1B.1	Covered/List A	Closed-cone coniferous forest, chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, vernal pools; mesic, clay/perennial bulbiferous herb/May– July/95–5,550	Low potential to occur. Orcutt's brodiea occurs in vernally moist grasslands and around vernal pools with mina mound topography (Reiser 2001). Vernal pools were not present on site. Occurs west of Sunrise Highway within the southern mountain range and reaches the Pacific Ocean (San Diego Plant Atlas 2018). This annual herb would have been observed during focused surveys if present.
Bursera microphylla	little-leaf elephant tree	None/None/2B.3	Covered/List B	Sonoran desert scrub (rocky)/perennial deciduous tree/June-July/655-2,295	Not expected to occur. Little-leaf elephant plant occurs in the desert and high desert region (San Diego Plant Atlas 2018). Sonoran Desert scrub is the preferred habitat of little-leaf elephant tree, and prefers desert



Scientific Name	Common Name	Status (Federal/State/ CRPR)	East County MSCP/ County of San Diego	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Potential to Occur
					alluvial fan scrub and rocky slopes. Is also associated with desert plants like desert lavender (<i>Hyptis emoryi</i>) and smoke tree (<i>Psorothamnus spinosus</i>) (Reiser 2001). These associates are typically found in desert environments and were not within the survey area. The site is outside of the species' known elevation range.
Calandrinia breweri	Brewer's calandrinia	None/None/4.2	None/List D	Chaparral, coastal scrub; sandy or loamy, disturbed sites and burns/annual herb/(Jan)Mar–June/30–4,005	Not expected to occur. Brewer's calandrinia occurs west of Pine Valley, California (San Diego Plant Atlas 2018). Does not occur in vicinity (CDFW 2018; CNPS 2018).
California macrophylla	round-leaved filaree	None/None/None	None/List B	Cismontane woodland, valley and foothill grassland; clay/annual herb/Mar– May/45–3,935	Low potential to occur. This species is known from west of Alpine, California (San Diego Plant Atlas 2018).
Calliandra eriophylla	pink fairy-duster	None/None/2B.3	Covered/List B	Sonoran desert scrub (sandy or rocky)/perennial deciduous shrub/Jan–Mar/390–4,920	Low potential to occur. This species is known to occur within Anza-Borrego Desert State Park and east of Jacumba, California (San Diego Plant Atlas 2018).
Calochortus catalinae	Catalina mariposa lily	None/None/4.2	None/List D	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland/perennial bulbiferous herb/(Feb)Mar– June/45–2,295	Not expected to occur. Catalina mariposa lily occurs in grassland communities (Reiser 2001). The site did not consist of grassland vegetation communities. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Calochortus dunnii	Dunn's mariposa lily	None/SR/1B.2	Covered/List A	Closed-cone coniferous forest, chaparral, valley and foothill grassland; gabbroic or metavolcanic, rocky/perennial bulbiferous herb/ (Feb)Apr–June/605– 6,005	Low potential to occur. Dunn's mariposa lily is generally located west of Pine Valley, California, and east of El Cajon, California (San Diego Plant Atlas 2018). Dunn's mariposa lily occurs in gabbroic derived soils and metavolcanic soils (Reiser 2001). Gabbroic and metavolcanic soils are not present on site (UC Davis 2018). This perennial herb would have been observed during focused surveys if present.



Scientific Name	Common Name	Status (Federal/State/ CRPR)	East County MSCP/ County of San Diego	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Potential to Occur
Camissoniopsis lewisii	Lewis' evening- primrose	None/None/3	None/List C	Coastal bluff scrub, cismontane woodland, coastal dunes, coastal scrub, valley and foothill grassland; sandy or clay/annual herb/Mar–May(June)/0–985	Not expected to occur. Lewis' evening primrose occurs west of Alpine, California, and generally on the coastline (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Carex obispoensis	San Luis Obispo sedge	None/None/1B.2	Covered/None	Closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, valley and foothill grassland; often serpentinite seeps, sometimes gabbro; often on clay soils/perennial herb/ Apr–June/30–2,690	Not expected to occur. San Luis Obispo sedge occurs west of Alpine, California (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Carlowrightia arizonica	Arizona carlowrightia	None/None/2B.2	Covered/None/Lis t B	Sonoran desert scrub (sandy, granitic alluvium)/perennial deciduous shrub/Mar– May/935–1,410	Not expected to occur. Arizona carlowrightia occurs near Borrego Springs and Agua Caliente. Arizona carlowrightia is found in Anza Borrego Desert State Park (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range.
Castilleja lasiorhyncha	San Bernardino Mountains owl's- clover	None/None/1B.2	None	Chaparral, meadows and seeps, pebble (pavement) plain, riparian woodland, upper montane coniferous forest; mesic/annual herb (hemiparasitic)/May–Aug/4,265–7,840	Not expected to occur. The site is outside of the species' known elevation range.
Ceanothus cyaneus	Lakeside ceanothus	None/None/1B.2	Covered/List A	Closed-cone coniferous forest, chaparral/perennial evergreen shrub/Apr– June/770–2,475	Not expected to occur. Lakeside ceanothus occurs west of Alpine, California (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).



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Ceanothus otayensis	Otay Mountain ceanothus	None/None/1B.2	None/None	Chaparral (metavolcanic or gabbroic)/perennial evergreen shrub/Jan–Apr/1,965–3,610	Low potential to occur. Otay Mountain ceanothus occurs generally west of Campo, California, but commonly west of Potrero, California (San Diego Plant Atlas 2018). This perennial evergreen shrub would have been observed during focused surveys if present.
Ceanothus verrucosus	wart-stemmed ceanothus	None/None/2B.2	None/List B	Chaparral/perennial evergreen shrub/Dec– May/0–1,245	Not expected to occur. Wart-stemmed ceanothus occurs generally west of I-15. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Centromadia parryi ssp. australis	southern tarplant	None/None/1B.1	None/List A	Marshes and swamps (margins), valley and foothill grassland (vernally mesic), vernal pools/annual herb/May–Nov/0–1,575	Not expected to occur. Southern tarplant occurs near Ramona, California; Del Dios, California; and Solana Beach, California (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Centromadia pungens ssp. laevis	smooth tarplant	None/None/1B.1	None/List A	Chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grassland; alkaline/annual herb/Apr-Sep/0-2,100	Not expected to occur. Smooth tarplant occurs west of the SR-79 and on Camp Pendleton (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Chaenactis carphoclinia var. peirsonii	Peirson's pincushion	None/None/1B.3	Covered/List A	Sonoran desert scrub (sandy)/annual herb/Mar– Apr/5–1,640	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Chaenactis glabriuscula var. orcuttiana	Orcutt's pincushion	None/None/1B.1	None/List A	Coastal bluff scrub (sandy), coastal dunes/annual herb/Jan-Aug/0-330	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present. Also does not occur in vicinity (CDFW 2018; CNPS 2018).
Chaenactis parishii	Parish's chaenactis	None/None/1B.3	None/List A	Chaparral (rocky) /perennial herb/May-July/4,265-8,200	Not expected to occur. The site is outside of the species' known elevation range.



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Chamaebatia australis	southern mountain misery	None/None/4.2	Covered/List D	Chaparral (gabbroic or metavolcanic)/perennial evergreen shrub/Nov– May/980–3,345	Not expected to occur. The site is outside of the species' known elevation range.
Chloropyron maritimum ssp. maritimum	salt marsh bird's-beak	FE/SE/1B.2	None/List A	Coastal dunes, marshes and swamps (coastal salt)/annual herb (hemiparasitic)/May–Oct(Nov)/0–100	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present. Also does not occur in vicinity (CDFW 2018; CNPS 2018).
Chorizanthe leptotheca	Peninsular spineflower	None/None/4.2	None/List D	Chaparral, coastal scrub, lower montane coniferous forest; alluvial fan, granitic/annual herb/May– Aug/980–6,235	Low potential to occur. Peninsular spineflower has been documented west of Live Oak Springs, California (San Diego Plant Atlas 2018). This species would have been observed if present; focused surveys were conducted during the species' blooming period.
Chorizanthe orcuttiana	Orcutt's spineflower	FE/SE/1B.1	None/List A	Closed-cone coniferous forest, chaparral (maritime), coastal scrub; sandy openings/annual herb/Mar– May/5–410	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Chorizanthe parryi var. fernandina	San Fernando Valley spineflower	FC/SE/1B.1	None/List A	Coastal scrub (sandy), valley and foothill grassland/annual herb/Apr-July/490-4,005	Not expected to occur. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Chorizanthe polygonoides var. longispina	long-spined spineflower	None/None/1B.2	Covered/List A	Chaparral, coastal scrub, meadows and seeps, valley and foothill grassland, vernal pools; often clay/annual herb/Apr–July/95–5,020	Low potential to occur. Long-spined spineflower occurs west of Pine Valley, California (San Diego Plant Atlas 2018). This species would have been observed if present; focused surveys were conducted during the species' blooming period.
Cistanthe maritima	seaside cistanthe	None/None/4.2	None/List D	Coastal bluff scrub, coastal scrub, valley and foothill grassland; sandy/annual herb/(Feb)Mar– June(Aug)/15–985	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).



Scientific Name	Common Name	Status (Federal/State/ CRPR)	East County MSCP/ County of San Diego	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Potential to Occur
Clarkia delicata	delicate clarkia	None/None/1B.2	Covered/List A	Chaparral, cismontane woodland; often gabbroic/annual herb/Apr– June/770–3,280	Not expected to occur. Delicate clarkia occurs within or on the periphery of oak woodlands. Locales where delicate clarkia is observed are within shaded tree canopies or the shade of large shrubs where vernally mesic (Reiser 2001). Habitat needed for delicate clarkia was not present on site. Distribution is generally west of Pine Valley, California (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range.
Clinopodium chandleri	San Miguel savory	None/None/1B.2	None/List A	Chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland; rocky, gabbroic or metavolcanic/perennial shrub/Mar–July/390–3,525	Not expected to occur. San Miguel savory occurs west of Alpine, California (San Diego Plant Atlas 2018). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Colubrina californica	Las Animas colubrina	None/None/2B.3	None/List B	Mojavean Desert scrub, Sonoran Desert scrub/perennial deciduous shrub/Apr–June/30–3,280	Not expected to occur. Los Aminas colubrina occurs in the desert region (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Comarostaphylis diversifolia ssp. diversifolia	summer holly	None/None/1B.2	None/List A	Chaparral, cismontane woodland/perennial evergreen shrub/Apr– June/95–2,590	Not expected to occur. Occurs west of Barret Junction, California (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Convolvulus simulans	small-flowered morning-glory	None/None/4.2	None/List D	Chaparral (openings), coastal scrub, valley and foothill grassland; clay, serpentinite seeps/annual herb/ Mar-July/95-2,430	Not expected to occur. Small-flowered morning-glory occurs west of Alpine, California (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).



Scientific Name	Common Name	Status (Federal/State/ CRPR)	East County MSCP/ County of San Diego	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Potential to Occur
Corethrogyne filaginifolia var. linifolia	Del Mar Mesa sand aster	None/None/1B.1	None/List A	Coastal bluff scrub, chaparral (maritime, openings), coastal scrub; sandy/perennial herb/May,July,Aug,Sep/45– 490	Not expected to occur. Del Mar Mesa sand aster occurs near the beach (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Cryptantha ganderi	Gander's cryptantha	None/None/1B.1	Covered/List A	Desert dunes, Sonoran Desert scrub (sandy)/annual herb/Feb-May/520-1,310	Not expected to occur. Gander's cryptantha occurs in the desert region and is found north of Anza Borrego Desert State Park (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Cylindropuntia californica var. californica	snake cholla	None/None/1B.1	None/List A	Chaparral, coastal scrub/perennial stem succulent/Apr-May/95-490	Not expected to occur. Snake cholla is distributed west of El Cajon, California (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Cylindropuntia fosbergii	pink teddy-bear cholla	None/None/1B.3	Covered/None	Sonoran Desert scrub/perennial stem succulent/Mar-May/275- 2,790	Not expected to occur. Pink teddy-bear cholla is distributed north of Mount Laguna (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range.
Cylindropuntia wolfii	Wolf's cholla	None/None/4.3	Covered/List D	Sonoran Desert scrub/perennial stem succulent/Mar-May/325- 3,935	Low potential to occur. Wolf's cholla is generally distributed east of Jacumba, California, in the desert region (San Diego Plant Atlas 2018). This perennial succulent would have been observed during focused surveys if present.
Deinandra conjugens	Otay tarplant	FT/SE/1B.1	None/List A	Coastal scrub, valley and foothill grassland; clay/annual herb/(Apr)May–June/80–985	Not expected to occur. Otay tarplant populations occur west of Dulzura, California (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).



Scientific Name	Common Name	Status (Federal/State/ CRPR) None/SE/1B.3	East County MSCP/ County of San Diego Covered/List A	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet) Chaparral, coastal scrub,	Potential to Occur Not expected to occur. Populations of Mojave tarplant
mohavensis	Mojave tarplant	Notie/SE/TB.3	Covered/List A	riparian scrub; mesic/annual herb/(May)June– Oct(Jan)/2,095–5,250	occur north of Warner Springs, California (San Diego Plant Atlas 2018). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Deinandra paniculata	paniculate tarplant	None/None/4.2	None/List D	Coastal scrub, valley and foothill grassland, vernal pools; usually vernally mesic, sometimes sandy/annual herb/(Mar)Apr-Nov/80-3,085	Not expected to occur. Paniculate tarplant populations are north of Cuyamaca Rancho State Park (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Delphinium hesperium ssp. cuyamacae	Cuyamaca larkspur	None/SR/1B.2	Covered/None	Lower montane coniferous forest, meadows and seeps, vernal pools; mesic/perennial herb/May– July/4,000–5,350	Not expected to occur. Cuyamaca larkspur occurs north of Pine Valley, California (San Diego Plant Atlas 2018). No suitable vegetation present.
Dichondra occidentalis	western dichondra	None/None/4.2	None/List D	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland/perennial rhizomatous herb/(Jan)Mar– July/160–1,640	Not expected to occur. Western dichondra occurs west of Alpine, California (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Dicranostegia orcuttiana	Orcutt's bird's- beak	None/None/2B.1	None/List B	Coastal scrub/annual herb (hemiparasitic)/ (Mar)Apr-July(Sep)/30-1,150	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
<i>Dieteria asteroides</i> var. <i>lagunensis</i>	Mount Laguna aster	None/SR/2B.1	Covered/List B	Cismontane woodland, lower montane coniferous forest/perennial herb/(May)July-Aug/2,590- 7,875	Low potential to occur. Mount Laguna aster is known only form the Mount Laguna area north of the biological study area (San Diego Plant Atlas 2018).



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Diplacus aridus	low bush monkeyflower	None/None/4.3	Covered/List D	Chaparral (rocky), Sonoran Desert scrub/perennial evergreen shrub/Apr– July/2,460–3,935	Low potential to occur. Low bush monkey flower occurs in the high and low desert near Jacumba, California, and farther east (San Diego Plant Atlas 2018). This perennial evergreen shrub would have been observed during focused surveys if present.
Diplacus clevelandii	Cleveland's bush monkeyflower	None/None/4.2	None/List D	Chaparral, cismontane woodland, lower montane coniferous forest; gabbroic, often in disturbed areas, openings, rocky/perennial rhizomatous herb/Apr–July/1,475–6,560	Low potential to occur. Cleveland's bush monkeyflower occurs west of Pine Valley, California (San Diego Plant Atlas 2018). This perennial herb would have been observed during focused surveys if present.
Ditaxis serrata var. californica	California ditaxis	None/None/3.2	None/List C	Sonoran Desert scrub/perennial herb/Mar– Dec/95–3,280	Not expected to occur. California ditaxis occurs in Anza Borrego Desert State Park (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Downingia concolor var. brevior	Cuyamaca Lake downingia	None/SE/1B.1	Covered/List A	Meadows and seeps (vernally mesic), vernal pools/annual herb/May– July/4,525–4,920	Not expected to occur. Cuyamaca Lake downingia occurs north of Cuyamca Rancho State Park (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range and there is no suitable vegetation present. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Dudleya alainae	Banner dudleya	None/None/3.2	None/List C	Chaparral, lower montane coniferous forest, Sonoran Desert scrub; rocky/ perennial herb/ Apr–July/2,425–3,935	Not expected to occur. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Dudleya attenuata ssp. attenuata	Orcutt's dudleya	None/None/2B.1	None/List B	Coastal bluff scrub, chaparral, coastal scrub; rocky or gravelly/perennial herb/May–July/5–165	Not expected to occur. Orcutt's dudleya occurs near the border in Border Field State Park right next to the ocean (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).



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Dudleya blochmaniae ssp. Blochmaniae	Blochman's dudleya	None/None/1B.1	None/List A	Coastal bluff scrub, chaparral, coastal scrub, valley and foothill grassland; rocky, often clay or serpentinite/ perennial herb/Apr–June/15– 1,475	Not expected to occur. Blochman's dudleya occurs near the ocean (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Dudleya brevifolia	short-leaved dudleya	None/SE/1B.1	None/List A	Chaparral (maritime, openings), coastal scrub; Torrey sandstone/perennial herb/Apr-May/95-820	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Dudleya multicaulis	many-stemmed dudleya	None/None/1B.2	None/List A	Chaparral, coastal scrub, valley and foothill grassland; often clay/perennial herb/Apr–July/45–2,590	Not expected to occur. Many stemmed dudleya occurs near San Clemente, California (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Dudleya variegata	variegated dudleya	None/None/1B.2	None/List A	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland, vernal pools; clay/perennial herb/Apr–June/5–1,905	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Dudleya viscida	sticky dudleya	None/None/1B.2	None/List A	Coastal bluff scrub, chaparral, cismontane woodland, coastal scrub; rocky/perennial herb/May– June/30–1,805	Not expected to occur. Sticky dudleya occurs near Oceanside, California, and Camp Pendleton, California (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Ericameria cuneata var. macrocephala	Laguna Mountains goldenbush	None/None/1B.3	Covered/List A	Chaparral (granitic)/perennial shrub/Sep-Dec/3,920-6,070	Low potential to occur. Laguna Mountains goldenbush occurs west of Boulder Oaks and Mount Laguna (San Diego Plant Atlas 2018). Numerous <i>Ericameria</i> species were found on site, but not of this variety. This perennial shrub would have been observed during focused surveys if present.



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Ericameria palmeri var. palmeri	Palmer's goldenbush	None/None/1B.1	Covered/List B	Chaparral, coastal scrub; mesic/perennial evergreen shrub/(July)Sep-Nov/95- 1,970	Not expected to occur. Palmer's goldenbush occurs west of Alpine, California. Numerous <i>Ericameria</i> species were found on site, but not this specific species. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Eriogonum evanidum	vanishing wild buckwheat	None/None/1B.1	Covered/List A	Chaparral, cismontane woodland, lower montane coniferous forest, pinyon and juniper woodland; sandy or gravelly/annual herb/July–Oct/3,605–7,300	Not expected to occur. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Eryngium aristulatum var. parishii	San Diego button-celery	FE/SE/1B.1	None/List A	Coastal scrub, valley and foothill grassland, vernal pools; mesic/annual / perennial herb/Apr–June/65–2,035	Not expected to occur. San Diego button celery generally occurs west of Alpine, California (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Eryngium pendletonense	Pendleton button-celery	None/None/1B.1	None/List A	Coastal bluff scrub, valley and foothill grassland, vernal pools; clay, vernally mesic/perennial herb/Apr– June(July)/45–360	Not expected to occur. Pendleton button celery only occurs on Camp Pendleton (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Erythranthe diffusa	Palomar monkeyflower	None/None/4.3	Covered/List D	Chaparral, lower montane coniferous forest; sandy or gravelly/annual herb/Apr– June/4,000–6,005	Low potential to occur. Palomar monkeyflower occurs west of Mount Laguna (San Diego Plant Atlas 2018). This species would have been observed if present; focused surveys were conducted during the species' blooming period.
Eucnide rupestris	annual rock- nettle	None/None/2B.2	None/List B	Sonoran Desert scrub/annual herb/Dec– Apr/1,640–1,970	Not expected to occur. Annual rock nettle occurs in the desert region and just south of Anza Borrego Desert State Park (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range.



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Euphorbia abramsiana	Abrams' spurge	None/None/2B.2	None/None	Mojavean Desert scrub, Sonoran Desert scrub; sandy/annual herb/(Aug)Sep-Nov/-5- 4,300	Low potential to occur. This species is occurs far north of the biological study area in the Anza-Borrego Desert State Park area in San Diego County (San Diego Plant Atlas 2018).
Euphorbia arizonica	Arizona spurge	None/None/2B.3	None/List B	Sonoran Desert scrub (sandy)/perennial herb/Mar– Apr/160–985	Not expected to occur. Arizona spurge occurs west of Borrego Springs (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range.
Euphorbia misera	cliff spurge	None/None/2B.2	None/List B	Coastal bluff scrub, coastal scrub, Mojavean Desert scrub; rocky/perennial shrub/Dec-Aug(Oct)/30-1,640	Not expected to occur. Cliff spurge occurs near the coast and in the Otay area (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Euphorbia platysperma	flat-seeded spurge	None/None/1B.2	None/List A	Desert dunes, Sonoran Desert scrub (sandy)/annual herb/Feb-Sep/210-330	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Euphorbia revoluta	revolute spurge	None/None/4.3	None/List D	Mojavean Desert scrub (rocky)/annual herb/Aug– Sep/3,590–10,170	Not expected to occur. No suitable vegetation present. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Ferocactus viridescens	San Diego barrel cactus	None/None/2B.1	None/List B	Chaparral, coastal scrub, valley and foothill grassland, vernal pools/perennial stem succulent/May–June/5– 1,475	Not expected to occur. San Diego barrel cactus occurs west of El Cajon, California (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Frankenia palmeri	Palmer's frankenia	None/None/2B.1	None/List B	Coastal dunes, marshes and swamps (coastal salt), playas/perennial herb/May–July/0–35	Not expected to occur. Palmer's frankenia occurs west of I-5 along the coast in marshes (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range and there is no suitable vegetation present. Does not occur in vicinity (CDFW 2018; CNPS 2018).



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Fremontodendron mexicanum	Mexican flannelbush	FE/SR/1B.1	None/List A	Closed-cone coniferous forest, chaparral, cismontane woodland; gabbroic, metavolcanic, or serpentinite/perennial evergreen shrub/Mar– June/30–2,350	Not expected to occur. Mexican flannelbush occurs generally near the Otay area (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range.
Fritillaria biflora	Chocolate lily	None/None/None	None/List D	Coastal scrub, chaparral, valley and foothill grassland; sometimes clay, cobbly loam/perennial herb/Feb–June/1,030–3,379	Not expected to occur. Chocolate lily occurs west of Descanso, California (San Diego Plant Atlas 2018). Chocolate lily does not occur in the Campo/Boulevard area (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range.
Funastrum utahense	Utah vine milkweed	None/None/4.2	None/List D	Mojavean Desert scrub, Sonoran Desert scrub; sandy or gravelly/perennial herb/(Mar)Apr-June(Sep- Oct)/325-4,710	Not expected to occur. Utah vine milkweed occurs far east and northeast of Jacumba, California (San Diego Plant Atlas 2018). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Galium angustifolium ssp. borregoense	Borrego bedstraw	None/SR/1B.3	Covered/List A	Sonoran Desert scrub (rocky)/perennial herb/Mar(May)/1,145-4,100	Low potential to occur. Borrego bedstraw occurs in Anza Borrego Desert State Park and near Borrego Springs, California (San Diego Plant Atlas 2018). This perennial herb would have been observed during focused surveys if present.
Galium angustifolium ssp. jacinticum	San Jacinto Mountains bedstraw	None/None/1B.3	None/List A	Lower montane coniferous forest/perennial herb/June–Aug/4,425–6,890	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Galium californicum ssp. flaccidum	California bedstraw	None/None/None	Covered/None	Open or dense non-coastal woodland/ perennial herb/Mar– July/1,500–4,921	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).



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Galium johnstonii	Johnston's bedstraw	None/None/4.3	None/List D	Chaparral, lower montane coniferous forest, pinyon and juniper woodland, riparian woodland/ perennial herb/June– July/4,000–7,545	Not expected to occur. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Githopsis diffusa ssp. filicaulis	Mission Canyon bluecup	None/None/3.1	None/List C	Chaparral (mesic, disturbed areas)/annual herb/Apr– June/1,475–2,295	Not expected to occur. Mission canyon bluecup is west of Pine Valley (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Grindelia hallii	San Diego gumplant	None/None/1B.2	Covered/List A	Chaparral, lower montane coniferous forest, meadows and seeps, valley and foothill grassland/ perennial herb/May– Oct/605–5,725	Low potential to occur. San Diego gumplant occurs generally north of Pine Valley, California (San Diego Plant Atlas 2018). This perennial herb would have been observed during focused surveys if present. No Grindelia species were found in the biological study area.
Harpagonella palmeri	Palmer's grapplinghook	None/None/4.2	Covered/List D	Chaparral, coastal scrub, valley and foothill grassland; clay; open grassy areas within shrubland/annual herb/Mar–May/65–3,135	Not expected to occur. Palmer's grapplinghook occurs west of Pine Valley, California, and in the high desert near Jacumba, California (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range.
Hazardia orcuttii	Orcutt's hazardia	None/ST/1B.1	None/List A	Chaparral (maritime), coastal scrub; often clay/perennial evergreen shrub/Aug– Oct/260–280	Not expected to occur. Orcutt's hazardia occurs near Encinitas, California, and Rancho Santa Fe, California (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Herissantia crispa	curly herissantia	None/None/2B.3	Covered/List B	Sonoran Desert scrub/annual/perennial herb/(Apr)Aug-Sep/2,295- 2,380	Not expected to occur. Curly herissantia occurs near Anza Borrego Desert State Park (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).



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Hesperocyparis stephensonii	Cuyamaca cypress	None/None/1B.1	Covered/List A	Closed-cone coniferous forest, chaparral, cismontane woodland, riparian forest; gabbroic/perennial evergreen tree/N.A./3,395–5,595	Low potential to occur. Cuyamaca cypress has a narrow distribution just west of Cuyamaca Rancho State Park (San Diego Plant Atlas 2018). This perennial evergreen tree would have been observed during focused surveys if present.
Heterotheca sessiliflora ssp. sanjacintensis	Sessileflower false goldenaster	None/None/None	None/List D	Montane habitats; reported to be endemic to Mount Palomar and the San Jacinto Mountains (Reiser 2001)/perennial herb/July– Sep/2,200–7,218	Not expected to occur. The site is outside of the species' known elevation range and is endemic to the Mount Palomar and the San Jacinto Mountains (Reiser 2001).
Heuchera brevistaminea	Laguna Mountains alumroot	None/None/1B.3	Covered/List A	Broadleafed upland forest, chaparral, cismontane woodland, riparian forest; rocky/perennial rhizomatous herb/Apr–July(Sep)/4,490– 6,560	Not expected to occur. Laguna Mountains alumroot occurs north of Mount Laguna, California (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range.
Heuchera rubescens var. versicolor	San Diego County alumroot	None/None/3.3	None/List B	Chaparral, lower montane coniferous forest; rocky/perennial rhizomatous herb/May–June/4,920– 13,125	Not expected to occur. San Diego county alumroot occurs north of Mount Laguna, California (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Holocarpha virgata ssp. elongata	graceful tarplant	None/None/4.2	Covered/List D	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland/annual herb/May– Nov/195–3,610	Not expected to occur. Graceful tarplant occurs west of Alpine, California, and north of Ramona, California (San Diego Plant Atlas 2018). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Hordeum intercedens	vernal barley	None/None/3.2	None/List C	Coastal dunes, coastal scrub, valley and foothill grassland (saline flats and depressions), vernal pools/ annual herb/Mar–June/15–3,280	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).



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Horkelia bolanderi	Bolander's horkelia	None/None/1B.2	None/None	Chaparral, lower montane coniferous forest, meadows and seeps, valley and foothill grassland; edges, vernally mesic areas/perennial herb/(May)June–Aug/1,475–3,610	Low potential to occur. This species is known from north of Mount Laguna (CNPS 2018).
Horkelia cuneata var. puberula	mesa horkelia	None/None/1B.1	None/List A	Chaparral (maritime), cismontane woodland, coastal scrub; sandy or gravelly/perennial herb/Feb– July(Sep)/225–2,655	Not expected to occur. Mesa horkelia occurs north of Oceanside, California (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Horkelia truncata	Ramona horkelia	None/None/1B.3	Covered/List A	Chaparral, cismontane woodland; clay, gabbroic/perennial herb/May–June/1,310–4,265	Not expected to occur. Ramona horkelia occurs west of Pine Valley, California (San Diego Plant Atlas 2018). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Horsfordia newberryi	Newberry's velvet-mallow	None/None/4.3	None/List D	Sonoran Desert scrub (rocky)/perennial shrub/Feb,Apr,Nov,Dec/5– 2,625	Not expected to occur. The site is outside of the species' known elevation range.
Hosackia crassifolia var. otayensis	Otay Mountain lotus	None/None/1B.1	None/List A	Chaparral (metavolcanic, often in disturbed areas)/perennial herb/May– Aug/1,245–3,295	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Hulsea californica	San Diego sunflower	None/None/1B.3	Covered/List A	Chaparral, lower montane coniferous forest, upper montane coniferous forest; openings and burned areas/perennial herb/Apr–June/3,000–9,565	Low potential to occur. This perennial herb would have been observed during focused surveys if present.



Scientific Name	Common Name	Status (Federal/State/ CRPR)	East County MSCP/ County of San Diego	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Potential to Occur
Hulsea mexicana	Mexican hulsea	None/None/2B.3	Covered/List B	Chaparral (volcanic, often on burns or disturbed areas)/ annual/ perennial herb/Apr– June/3,935–3,935	Low potential to occur. This perennial herb would have been observed during focused surveys if present.
Hulsea vestita ssp. callicarpha	beautiful hulsea	None/None/4.2	Covered/None	Chaparral, lower montane coniferous forest; rocky or gravelly, granitic/perennial herb/May–Oct/3,000–10,005	Not expected to occur. Beautiful hulsea occurs north of Warner Springs, California (San Diego Plant Atlas 2018). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Hymenothrix wrightii	Wright's hymenothrix	None/None/4.3	None/List D	Cismontane woodland, lower montane coniferous forest, valley and foothill grassland/perennial herb/June–Oct/4,590–5,085	Not expected to occur. Wright's hymenothrix occurs north of Pine Valley, California (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Ipomopsis tenuifolia	slender-leaved ipomopsis	None/None/2B.3	None/List B	Chaparral, pinyon and juniper woodland, Sonoran Desert scrub; gravelly or rocky/perennial herb/Mar–May/325–3,935	Low potential to occur. Slender-leaved ipomospsis generally occurs east of Boulevard, California, in the high desert region of Jacumba, California (San Diego Plant Atlas 2018). This perennial herb would have been observed during focused surveys if present.
Isocoma menziesii var. decumbens	decumbent goldenbush	None/None/1B.2	None/List A	Chaparral, coastal scrub (sandy, often in disturbed areas)/perennial shrub/Apr– Nov/30–445	Not expected to occur. Decumbent goldenbush occurs west of Alpine, California (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range.
Iva hayesiana	San Diego marsh-elder	None/None/2B.2	None/List B	Marshes and swamps, playas/perennial herb/Apr– Oct/30–1,640	Not expected to occur. San Diego marsh-elder occurs west of Alpine, California (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range and there is no suitable vegetation present. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Johnstonella costata	ribbed cryptantha	None/None/4.3	Covered/List D	Desert dunes, Mojavean Desert scrub, Sonoran Desert scrub; sandy/annual herb/Feb–May/-195–1,640	Not expected to occur. Ribbed cryptantha occurs in the desert region (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).



Scientific Name	Common Name	Status (Federal/State/ CRPR)	East County MSCP/ County of San Diego	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Potential to Occur
Johnstonella holoptera	winged cryptantha	None/None/4.3	None/List D	Mojavean Desert scrub, Sonoran Desert scrub/annual herb/Mar– Apr/325–5,545	Not expected to occur. Winged cryptantha occurs in the desert region (San Diego Plant Atlas 2018). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Juglans californica	Southern California black walnut	None/None/4.2	None/List D	Chaparral, cismontane woodland, coastal scrub, riparian woodland; alluvial/perennial deciduous tree/Mar-Aug/160-2,955	Not expected to occur. Southern California black walnut occurs north of Julian, California, and west of Alpine, California (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Juncus acutus ssp. leopoldii	southwestern spiny rush	None/None/4.2	None/List D	Coastal dunes (mesic), meadows and seeps (alkaline seeps), marshes and swamps (coastal salt)/perennial rhizomatous herb/ (Mar)May–June/5– 2,955	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present. Also does not occur in vicinity (CDFW 2018; CNPS 2018).
Juncus cooperi	Cooper's rush	None/None/4.3	None/List D	Meadows and seeps (mesic, alkaline or saline)/perennial herb/Apr–May(Aug)/-850–5,805	Not expected to occur. Cooper's rush is located just north of Jacumba Hotsprings, California (San Diego Plant Atlas 2018). No suitable vegetation present. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Lasthenia glabrata ssp. coulteri	Coulter's goldfields	None/None/1B.1	None/List A	Marshes and swamps (coastal salt), playas, vernal pools/annual herb/Feb- June/0-4,005	Not expected to occur. Coulter's goldfields occur west of El Cajon, California (San Diego Plant Atlas 2018). No suitable vegetation present. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Lathyrus splendens	pride-of- California	None/None/4.3	Covered/List D	Chaparral/perennial herb/Mar-June/655-5,005	Low potential to occur. This perennial herb would have been observed during focused surveys if present.
Lepechinia cardiophylla	heart-leaved pitcher sage	None/None/1B.2	None/List A	Closed-cone coniferous forest, chaparral, cismontane woodland/perennial shrub/Apr–July/1,705–4,495	Not expected to occur. Heart-leaved pitcher sage occurs just northeast of Poway, California (San Diego Plant Atlas 2018). Does not occur in vicinity (CDFW 2018; CNPS 2018).



Scientific Name	Common Name	Status (Federal/State/ CRPR)	East County MSCP/ County of San Diego	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Potential to Occur
Lepechinia ganderi	Gander's pitcher sage	None/None/1B.3	None/List A	Closed-cone coniferous forest, chaparral, coastal scrub, valley and foothill grassland; gabbroic or metavolcanic/perennial shrub/June–July/1,000–3,295	Not expected to occur. Gander's pitcher sage occurs west of Dulzura, California (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Lepidium flavum var. felipense	Blair Valley pepper-grass	None/None/1B.2	Covered/List A	Pinyon and juniper woodland, Sonoran Desert scrub; sandy/annual herb/Mar–May/1,490–2,755	Not expected to occur. Blair Valley pepper-grass occur in Anza Borrego Desert State Park (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Lepidium virginicum var. robinsonii	Robinson's pepper-grass	None/None/4.3	None/List A	Chaparral, coastal scrub/annual herb/Jan– July/0–2,905	Not expected to occur. Robinson's pepper-grass occurs west of Pine Valley, California (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range.
Leptosiphon floribundus ssp. hallii	Santa Rosa Mountains leptosiphon	None/None/1B.3	None/List A	Pinyon and juniper woodland, Sonoran Desert scrub/perennial herb/May– July(Nov)/3,280–6,560	Not expected to occur. Santa Rosa Mountains leptosiphon occurs just west of Borrego Springs, California (San Diego Plant Atlas 2018). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Leptosyne maritima	sea dahlia	None/None/2B.2	None/List B	Coastal bluff scrub, coastal scrub/perennial herb/Mar– May/15–490	Not expected to occur. Sea dahlia occurs west of I-5 along the coast (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Lessingia glandulifera var. tomentosa	Warner Springs lessingia	None/None/1B.1	Covered/List A	Chaparral (sandy)/annual herb/Aug,Oct/2,850-4,005	Not expected to occur. Warner Springs lessingia occurs north of Santa Ysabel, California (San Diego Plant Atlas 2018). Does not occur in vicinity (CDFW 2018; CNPS 2018).



				5.1	
Scientific Name	Common Name	Status (Federal/State/ CRPR)	East County MSCP/ County of San Diego	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Potential to Occur
Lewisia brachycalyx	short-sepaled lewisia	None/None/2B.2	Covered/List B	Lower montane coniferous forest, meadows and seeps; mesic/perennial herb/(Feb)Apr– June(July)/4,490–7,545	Not expected to occur. Short-sepaled lewisia occurs north of Cuyamaca Rancho State Park (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range and there is no suitable vegetation present. Also does not occur in vicinity (CDFW 2018; CNPS 2018).
Lilium humboldtii ssp. ocellatum	ocellated Humboldt lily	None/None/4.2	Covered/List D	Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, riparian woodland; openings/perennial bulbiferous herb/Mar– July(Aug)/95–5,905	Not expected to occur. Ocellated Humboldt lily occurs north and west of Pine Valley, California (San Diego Plant Atlas 2018). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Lilium parryi	lemon lily	None/None/1B.2	Covered/List A	Lower montane coniferous forest, meadows and seeps, riparian forest, upper montane coniferous forest; mesic/perennial bulbiferous herb/July–Aug/4,000–9,005	Not expected to occur. Lemon lily occurs near Palomar Mountain (San Diego Plant Atlas 2018). Does not occur in vicinity (CDFW 2018; CNPS 2018).
<i>Limnanthes alba</i> ssp. <i>parishii</i>	Parish's meadowfoam	None/SE/1B.2	Covered/List A	Lower montane coniferous forest, meadows and seeps, vernal pools; vernally mesic/annual herb/Apr– June/1,965–6,560	Not expected to occur. Parish's meadowfoam occurs north of Mount Laguna, California (San Diego Plant Atlas 2018). Occurs in areas devoid of shrubs that consist of high concentrations of annuals and are vernally mesic (Reiser 2001). High concentrations of annuals were not present on site. No suitable vegetation is present.
Linanthus maculatus ssp. emaculatus	Jacumba Mountains Iinanthus	None/None/1B.1	None/None	Desert dunes (edges), Sonoran Desert scrub; sandy or course, opaque- white, decomposed granite soils of washes and on flats	Not expected to occur. Jacumba Mountains occurs26us occurs just west of Ocotillo, California, in the desert region (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range.



Scientific Name	Common Name	Status (Federal/State/ CRPR)	East County MSCP/ County of San Diego	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Potential to Occur
				near wash margins/annual herb/(Mar)Apr(May)/ 1,295-1,920	
Linanthus orcuttii	Orcutt's linanthus	None/None/1B.3	Covered/List A	Chaparral, lower montane coniferous forest, pinyon and juniper woodland; openings/annual herb/May– June/3,000–7,035	Low potential to occur. Orcutt's linanthus occurs north of Boulder Oaks, California (San Diego Plant Atlas 2018). This species would have been observed if present; focused surveys were conducted during the species' blooming period.
<i>Lupinus albifrons</i> var. <i>medius</i>	Mountain Springs bush Iupine	None/None/1B.3	Covered/List A	Pinyon and juniper woodland, Sonoran Desert scrub/perennial shrub/Mar– May/1,390–4,495	Low potential to occur. This perennial shrub would have been observed during focused surveys if present.
Lycium californicum	California box- thorn	None/None/4.2	None/List D	Coastal bluff scrub, coastal scrub/perennial shrub/(Dec)Mar, June, July, Aug/15–490	Not expected to occur. California box-thorn occurs west of Rancho San Diego (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Lycium parishii	Parish's desert- thorn	None/None/2B.3	Covered/List B	Coastal scrub, Sonoran Desert scrub/perennial shrub/Mar-Apr/440-3,280	Not expected to occur. Parish's desert-thorn occurs near Agua Caliente County Park (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range.
Lyrocarpa coulteri	Palmer's lyrepod	None/None/4.3	None/List D	Sonoran Desert scrub (gravelly or rocky)/perennial herb/Dec-Apr/390-2,610	Not expected to occur. Palmer's lyrepod occurs north of Mount Laguna in Anza Borrego Desert State Park (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Malacothamnus aboriginum	Indian Valley bush-mallow	None/None/1B.2	Covered/List A	Chaparral, cismontane woodland; rocky, granitic, often in burned areas/perennial deciduous shrub/Apr–Oct/490–5,575	Not expected to occur. Indian Valley bush-mallow occurs north of Pine Valley, California (San Diego Plant Atlas 2018). Does not occur in vicinity (CDFW 2018; CNPS 2018).



Scientific Name	Common Name	Status (Federal/State/ CRPR)	East County MSCP/ County of San Diego	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Potential to Occur
Malperia tenuis	brown turbans	None/None/2B.3	None/List B	Sonoran Desert scrub (sandy, gravelly)/annual herb/(Feb)Mar-Apr/45-1,100	Not expected to occur. Brown turbans occurs in the desert region (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range.
Matelea parvifolia	spearleaf	None/None/2B.3	None/List B	Mojavean Desert scrub, Sonoran Desert scrub; rocky/perennial herb/Mar– May(July)/ 1,440-3,595	Low potential to occur. Spearleaf occurs in Anza Borrego Desert State Park (San Diego Plant Atlas 2018). This perennial herb would have been observed during focused surveys if present.
Mentzelia hirsutissima	hairy stickleaf	None/None/2B.3	None/List B	Sonoran Desert scrub (rocky)/annual herb/Mar– May/0–2,295	Not expected to occur. The site is outside of the species' known elevation range.
Microseris douglasii ssp. platycarpha	small-flowered microseris	None/None/4.2	None/List D	Cismontane woodland, coastal scrub, valley and foothill grassland, vernal pools; clay/annual herb/Mar– May/45–3,510	Not expected to occur. Small-flowered microseris occurs west of Alpine, California (San Diego Plant Atlas 2018). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Mimulus latidens	vernal pool monkeyflower	None/None/None	None/List A	Vernal pools/annual herb/Apr-June/900-2,953	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Mirabilis tenuiloba	slender-lobed four o'clock	None/None/4.3	None/List D	Sonoran Desert scrub/perennial herb/(Feb)Mar–May/750– 3,595	Low potential to occur. Slender lobed four o'clock occurs in the high desert and desert region (San Diego Plant Atlas 2018). This perennial herb would have been observed during focused surveys if present.
<i>Monardella</i> <i>hypoleuca</i> ssp. <i>lanata</i>	felt-leaved monardella	None/None/1B.2	Covered/List A	Chaparral, cismontane woodland/perennial rhizomatous herb/June– Aug/980–5,165	Not expected to occur. Felt-leaved monardella occurs west of Pine Valley, California (San Diego Plant Atlas 2018). Does not occur in vicinity (CDFW 2018; CNPS 2018).
<i>Monardella</i> <i>macrantha</i> ssp. <i>hallii</i>	Hall's monardella	None/None/1B.3	None/List A	Broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, valley and	Not expected to occur. Hall's monardella occurs on Palomar Mountain (San Diego Plant Atlas 2018). Does not occur in vicinity (CDFW 2018; CNPS 2018).



Scientific Name	Common Name	Status (Federal/State/ CRPR)	East County MSCP/ County of San Diego	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Potential to Occur
				foothill grassland/perennial rhizomatous herb/June– Oct/2,395–7,200	
Monardella nana ssp. leptosiphon	San Felipe monardella	None/None/1B.2	Covered/None	Chaparral, lower montane coniferous forest/perennial rhizomatous herb/June–July/3,935–6,085	Low potential to occur. San Felipe monardella is known from north of Julian in San Diego County (San Diego Plant Atlas 2018).
Monardella stoneana	Jennifer's monardella	None/None/1B.2	None/List A	Closed-cone coniferous forest, chaparral, coastal scrub, riparian scrub; usually rocky intermittent streambeds/perennial herb/June–Sep/30–2,590	Not expected to occur. Jennifer's monardella occurs west of Barrett Junction (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Monardella viminea	willowy monardella	FE/SE/1B.1	None/List A	Chaparral, coastal scrub, riparian forest, riparian scrub, riparian woodland; alluvial ephemeral washes/perennial herb/June–Aug/160–740	Not expected to occur. Willowy monardella occurs west of U.S. Route 67 (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Mucronea californica	California spineflower	None/None/4.2	None/List D	Chaparral, cismontane woodland, coastal dunes, coastal scrub, valley and foothill grassland; sandy/annual herb/Mar– July(Aug)/0–4,595	Not expected to occur. California spineflower occurs west of I-5 on the coast (San Diego Plant Atlas 2018). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Myosurus minimus ssp. apus	little mousetail	None/None/3.1	None/List C	Valley and foothill grassland, vernal pools (alkaline)/annual herb/Mar– June/65–2,100	Not expected to occur. Little mousetail occurs in the Otay area (San Diego Plant Atlas 2018). Found in deeper portions of vernal pools (Resier 2001). Vernal pools were not present on site. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).



Scientific Name	Common Name	Status (Federal/State/ CRPR)	East County MSCP/ County of San Diego	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Potential to Occur
Nama stenocarpa	mud nama	None/None/2B.2	None/List B	Marshes and swamps (lake margins, riverbanks)/annual/ perennial herb/Jan–July/15– 1,640	Not expected to occur. Mud nama has been documented near Lake Henshaw (San Diego Plant Atlas 2018). Found on muddy embankments of lakes (Reiser 2001). The site is outside of the species' known elevation range and there is no suitable vegetation present. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Nasturtium gambelii	Gambel's water cress	FE/ST/1B.1	None/List A	Marshes and swamps (freshwater or brackish)/perennial rhizomatous herb/Apr– Oct/15–1,085	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Navarretia fossalis	spreading navarretia	FT/None/1B.1	None/List A	Chenopod scrub, marshes and swamps (assorted shallow freshwater), playas, vernal pools/annual herb/Apr–June/95–2,150	Not expected to occur. Spreading navarretia occurs west of Ramona, California (San Diego Plant Atlas 2018). Is found in vernal pools and vernal swales (Reiser 2001). No vernal pools were present on site. The site is outside of the species' known elevation range and there is no suitable vegetation present. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Navarretia peninsularis	Baja navarretia	None/None/1B.2	Covered/List A	Chaparral (openings), lower montane coniferous forest, meadows and seeps, pinyon and juniper woodland; mesic/annual herb/(May)June–Aug/4,920– 7,545	Not expected to occur. Baja navarretia occurs in Cuyamaca Rancho State Park (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Navarretia prostrata	prostrate vernal pool navarretia	None/None/1B.1	None/List A	Coastal scrub, meadows and seeps, valley and foothill grassland (alkaline), vernal pools; mesic/annual herb/Apr–July/5–3,970	Not expected to occur. Prostrate vernal pool navarretia occurs west of I-15 (San Diego Plant Atlas 2018). Does not occur in vicinity (CDFW 2018; CNPS 2018).



Scientific Name	Common Name	Status (Federal/State/ CRPR)	East County MSCP/ County of San Diego	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Potential to Occur
Nemacaulis denudata var. denudata	coast woolly- heads	None/None/1B.2	None/List A	Coastal dunes/annual herb/Apr-Sep/0-330	Not expected to occur. Coast woolly-heads occur west of I-15 (San Diego Plant Atlas). The site is outside of the species' known elevation range and there is no suitable vegetation present. Also does not occur in vicinity (CDFW 2018; CNPS 2018).
Nemacaulis denudata var. gracilis	slender cottonheads	None/None/2B.2	None/List B	Coastal dunes, desert dunes, Sonoran Desert scrub/annual herb/(Mar)Apr– May/-160–1,310	Not expected to occur. Slender cottonheads prefer well-developed dune soils (Reiser 2001). Slender cottonheads occur west of I-15 (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Nolina cismontana	chaparral nolina	None/None/1B.2	Covered/List A	Chaparral, coastal scrub; sandstone or gabbro/ perennial evergreen shrub/(Mar)May-July/455- 4,185	Not expected to occur. Chaparral 31olina occurs near Alpine, California, Palomar Mountain, and Cleveland National Forest within the central range of San Diego County (San Diego Plant Atlas 2018). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Nolina interrata	Dehesa nolina	None/SE/1B.1	None/List A	Chaparral (gabbroic, metavolcanic, or serpentinite)/perennial herb/June-July/605-2,805	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Ophioglossum californicum	California adder's-tongue	None/None/4.2	None/List D	Chaparral, valley and foothill grassland, vernal pools (margins); mesic/perennial rhizomatous herb/(Dec)Jan– June/195–1,720	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Opuntia wigginsii	Wiggins' cholla	None/None/3.3	None/List C	Sonoran Desert scrub (sandy)/perennial stem succulent/Mar/95–2,905	Not expected to occur. The site is outside of the species' known elevation range.
Orcuttia californica	California Orcutt grass	FE/SE/1B.1	None/List A	Vernal pools/annual herb/Apr-Aug/45-2,165	Not expected to occur. California orcutts grass occurs within vernal pools (Reiser 2001). No vernal pools were present on site. The site is outside of the species'



		Status (Federal/State/	East County MSCP/ County of San	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range	
Scientific Name	Common Name	CRPR)	Diego	(feet)	Potential to Occur
					known elevation range and there is no suitable vegetation present. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Ornithostaphylos oppositifolia	Baja California birdbush	None/SE/2B.1	None/List B	Chaparral/perennial evergreen shrub/Jan– Apr/180–2,625	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Orobanche parishii ssp. brachyloba	short-lobed broomrape	None/None/4.2	None/List D	Coastal bluff scrub, coastal dunes, coastal scrub; sandy/perennial herb (parasitic)/Apr-Oct/5-1,000	Not expected to occur. Short-lobed broomrape occurs west of I-5 (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Packera ganderi	Gander's ragwort	None/SR/1B.2	Covered/List A	Chaparral (burns, gabbroic outcrops)/perennial herb/Apr-June/1,310-3,935	Not expected to occur. Gander's ragwort occurs west of Pine Valley (San Diego Plant Atlas 2018). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Pectocarya peninsularis	Baja California bur-comb	None/None/None	None/List D	Sonoran Desert scrub; washes, roadsides, clearings, sandy, silty, or gravelly soil/annual herb/Feb-Apr/300-984	Not expected to occur. Baja California bur-comb occurs in the desert region (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range.
Penstemon clevelandii var. connatus	San Jacinto beardtongue	None/None/4.3	None/List D	Chaparral, pinyon and juniper woodland, Sonoran Desert scrub; rocky/perennial herb/Mar–May/1,310–4,920	Not expected to occur. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Penstemon thurberi	Thurber's beardtongue	None/None/4.2	None/List D	Chaparral, Joshua tree woodland, pinyon and juniper woodland, Sonoran Desert scrub/perennial herb/May–July/1,640–4,005	Not expected to occur. Thurber's beardtongue occurs just west of Anza Borrego Desert State Park (San Diego Plant Atlas 2018). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Pentachaeta aurea ssp. aurea	golden-rayed pentachaeta	None/None/4.2	None/List D	Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest,	Not expected to occur. Golden rayed pentachaeta occurs west of Mount Laguna, California (San Diego Plant Atlas 2018). Does not occur in vicinity (CDFW 2018; CNPS 2018).



Scientific Name	Common Name	Status (Federal/State/ CRPR)	East County MSCP/ County of San Diego	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Potential to Occur
				riparian woodland, valley and foothill grassland/ annual herb/Mar–July/260–6,070	
Pentagramma triangularis ssp. nov. [described as P.t. rebmanii]	goldenback fern	None/None/None	Covered/None	Chaparral, coastal scrub, riparian woodland, cismontane woodland; mesic, sometimes gabbro soils/fern/N.A./1,250–4,101	Not expected to occur. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Perideridia gairdneri ssp. gairdneri	Gairdner's yampah	None/None/4.2	None/List D	Broadleafed upland forest, chaparral, coastal prairie, valley and foothill grassland, vernal pools; vernally mesic/perennial herb/June– Oct/0–2,000	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Petalonyx linearis	narrow-leaf sandpaper-plant	None/None/2B.3	None/None	Mojavean Desert scrub, Sonoran Desert scrub; sandy or rocky canyons/ perennial shrub/(Jan–Feb) Mar– May(June–Dec)/-80–3,660	Low potential to occur. Narrow-leaf sandpaper plant occurs north of Mount Laguna within Anza Borrego Desert State Park (San Diego Plant Atlas 2018). This perennial shrub would have been observed during focused surveys if present.
Phacelia nashiana	Charlotte's phacelia	None/None/1B.2	Covered/None	Joshua tree woodland, Mojavean Desert scrub, pinyon and juniper woodland; usually granitic, sandy/annual herb/Mar– June/1,965–7,220	Not expected to occur. Charlotte's phacelia occurs north of Borrego Springs, California (San Diego Plant Atlas 2018). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Phacelia stellaris	Brand's star phacelia	None/None/1B.1	None/List A	Coastal dunes, coastal scrub/annual herb/Mar– June/0–1,310	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Pholistoma auritum var. arizonicum	Arizona pholistoma	None/None/2B.3	Covered/None	Mojavean Desert scrub /annual herb/Mar/900-2,740	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.



Scientific Name	Common Name	Status (Federal/State/ CRPR)	East County MSCP/ County of San Diego	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Potential to Occur
Pilostyles thurberi	Thurber's pilostyles	None/None/4.3	None/List D	Sonoran Desert scrub/perennial herb (parasitic)/Dec-Apr/0-1,200	Not expected to occur. The site is outside of the species' known elevation range.
Pinus torreyana ssp. torreyana	Torrey pine	None/None/1B.2	None/List A	Closed-cone coniferous forest, chaparral; sandstone/perennial evergreen tree/N.A./95–525	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Piperia cooperi	chaparral rein orchid	None/None/4.2	Covered/List D	Chaparral, cismontane woodland, valley and foothill grassland/perennial herb/Mar-June/45-5,200	Not expected to occur. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Piperia leptopetala	narrow-petaled rein orchid	None/None/4.3	Covered/List D	Cismontane woodland, lower montane coniferous forest, upper montane coniferous forest/ perennial herb/May– July/1,245–7,300	Not expected to occur. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Poa atropurpurea	San Bernardino blue grass	FE/None/1B.2	Covered/List A	Meadows and seeps (mesic)/perennial rhizomatous herb/(Apr)May– July(Aug)/4,460–8,055	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Pogogyne abramsii	San Diego mesa mint	FE/SE/1B.1	None/List A	Vernal pools/annual herb/Mar-July/295-655	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Pogogyne nudiuscula	Otay Mesa mint	FE/SE/1B.1	None/List A	Vernal pools/annual herb/May-July/295-820	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Polygala cornuta var. fishiae	Fish's milkwort	None/None/4.3	None/List D	Chaparral, cismontane woodland, riparian woodland/perennial	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).



Scientific Name	Common Name	Status (Federal/State/ CRPR)	East County MSCP/ County of San Diego	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Potential to Occur
				deciduous shrub/May- Aug/325-3,280	
Proboscidea althaeifolia	desert unicorn- plant	None/None/4.3	None/List D	Sonoran Desert scrub; gently sloping sandy flats and washes, sometimes roadsides/perennial herb/ May-Sep(Oct)/275-3,280	Not expected to occur. Desert unicorn plant occurs northeast of Mount Laguna, California, in the desert region (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range.
Quercus cedrosensis	Cedros Island oak	None/None/2B.2	None/List B	Closed-cone coniferous forest, chaparral, coastal scrub/perennial evergreen tree/Apr–May/835–3,150	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Quercus dumosa	Nuttall's scrub oak	None/None/1B.1	None/List A	Closed-cone coniferous forest, chaparral, coastal scrub; sandy, clay loam/ perennial evergreen shrub/ Feb— Apr(May–Aug)/45–1,310	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Quercus engelmannii	Engelmann oak	None/None/4.2	Covered/List D	Chaparral, cismontane woodland, riparian woodland, valley and foothill grassland/perennial deciduous tree/Mar– June/160–4,265	Not expected to occur. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Rhus aromatica var. simplicifolia	single-leaved skunkbrush	None/None/2B.3	None/List B	Pinyon and juniper woodland; usually granitic/perennial deciduous shrub/Mar-Apr/4,000-4,495	Not expected to occur. No suitable vegetation present. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Ribes canthariforme	Moreno currant	None/None/1B.3	Covered/List A	Chaparral, riparian scrub/perennial deciduous shrub/Feb-Apr/1,115-3,935	Not expected to occur. Moreno currant occurs west of Pine Valley, California (San Diego Plant Atlas 2018). Does not occur in vicinity (CDFW 2018; CNPS 2018).



Scientific Name	Common Name	Status (Federal/State/ CRPR)	East County MSCP/ County of San Diego	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Potential to Occur
Ribes viburnifolium	Santa Catalina Island currant	None/None/1B.2	None/List A	Chaparral, cismontane woodland/perennial evergreen shrub/Feb– Apr/95–1,150	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Romneya coulteri	Coulter's matilija poppy	None/None/4.2	None/List D	Chaparral, coastal scrub; often in burns/perennial rhizomatous herb/Mar– July(Aug)/65–3,935	Not expected to occur. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Rosa minutifolia	small-leaved rose	None/SE/2B.1	None/List B	Chaparral, coastal scrub/perennial deciduous shrub/Jan-June/490-525	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Rubus glaucifolius var. ganderi	Cuyamaca raspberry	None/None/3.1	Covered/List A	Lower montane coniferous forest (gabbroic)/perennial evergreen shrub/May– June/3,935–5,495	Not expected to occur. No suitable vegetation present. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Rupertia rigida	Parish's rupertia	None/None/4.3	Covered/List D	Chaparral, cismontane woodland, lower montane coniferous forest, meadows and seeps, pebble (pavement) plain, valley and foothill grassland/perennial herb/June–Aug/2,295–8,200	Low potential to occur. Parish's rupertia occurs north of Pine Valley, California (San Diego Plant Atlas 2018). This perennial herb would have been observed during focused surveys if present.
Saltugilia caruifolia	caraway-leaved woodland-gilia	None/None/4.3	None/List D	Chaparral, lower montane coniferous forest; sandy, openings/annual herb/May– Aug/2,755–7,545	Not expected to occur. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Salvia eremostachya	desert sage	None/None/4.3	None/List D	Sonoran Desert scrub (rocky or gravelly)/ perennial evergreen shrub/Mar-May/2,295-4,595	Not expected to occur. Does not occur in vicinity (CDFW 2018; CNPS 2018).



Scientific Name	Common Name	Status (Federal/State/ CRPR)	East County MSCP/ County of San Diego	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Potential to Occur
Salvia munzii	Munz's sage	None/None/2B.2	None/List B	Chaparral, coastal scrub/perennial evergreen shrub/Feb-Apr/375-3,495	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Scutellaria bolanderi ssp. austromontana	southern mountains skullcap	None/None/1B.2	None/List A	Chaparral, cismontane woodland, lower montane coniferous forest; mesic/perennial rhizomatous herb/June–Aug/1,390–6,560	Low potential to occur. Southern mountains skullcap occurs north of Boulder Oaks and collections are most abundant in the Palomar Mountain area (San Diego Plant Atlas 2018).
Selaginella asprella	bluish spike- moss	None/None/4.3	None/List D	Cismontane woodland, lower montane coniferous forest, pinyon and juniper woodland, subalpine coniferous forest, upper montane coniferous forest; granitic, rocky/perennial rhizomatous herb/July/5,245–8,860	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Selaginella cinerascens	ashy spike-moss	None/None/4.1	None/List D	Chaparral, coastal scrub/perennial rhizomatous herb/N.A./65–2,100	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Selaginella eremophila	desert spike- moss	None/None/2B.2	None/List B	Chaparral, Sonoran Desert scrub (gravelly or rocky)/perennial rhizomatous herb/(May)June(July)/ 655–4,250	Low potential to occur. Desert spike-moss occurs in the high desert region and desert region east of the site (San Diego Plant Atlas 2018). This perennial herb would have been observed during focused surveys if present.
Senecio aphanactis	chaparral ragwort	None/None/2B.2	None/List B	Chaparral, cismontane woodland, coastal scrub; sometimes alkaline/annual herb/Jan–Apr(May)/45– 2,625	Not expected to occur. Chaparral ragwort occurs west of Alpine, California (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range.



				Primary Habitat	
		Status	East County MSCP/	Associations/Life Form/Blooming	
		(Federal/State/	County of San	Period/Elevation Range	
Scientific Name	Common Name	CRPR)	Diego	(feet)	Potential to Occur
Senna covesii	Coves' cassia	None/None/2B.2	None/List B	Sonoran Desert scrub; dry, sandy desert washes and slopes/perennial herb/Mar– June(Aug)/ 735–4,250	Low potential to occur. This perennial herb would have been observed during focused surveys if present.
Sibaropsis hammittii	Hammitt's clay- cress	None/None/1B.2	Covered/List A	Chaparral (openings), valley and foothill grassland; clay/annual herb/Mar–Apr/2,360–3,495	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Spermolepis echinata	bristly scaleseed	None/None/None	None/List B	Sonoran Desert scrub (sandy or rocky)/annual herb/Mar-Apr/1,500-4,921	Not expected to occur. The site is outside of the species' known elevation range.
Spermolepis lateriflora	western bristly scaleseed	None/None/2A	None/None	Sonoran Desert scrub; rocky or sandy/annual herb/Mar– Apr/1,195–2,200	Not expected to occur. The site is outside of the species' known elevation range.
Stemodia durantifolia	purple stemodia	None/None/2B.1	None/List B	Sonoran Desert scrub (often mesic, sandy)/perennial herb/(Jan)Apr, June, Aug, Sep, Oct, Dec/590–985	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Stipa diegoensis	San Diego County needle grass	None/None/4.2	None/List D	Chaparral, coastal scrub; rocky, often mesic/perennial herb/Feb–June/30–2,625	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Streptanthus bernardinus	Laguna Mountains jewelflower	None/None/4.3	None/List D	Chaparral, lower montane coniferous forest/perennial herb/May–Aug/2,195–8,200	Low potential to occur. Laguna Mountains jewelflower occurs north of Mount Laguna, California (San Diego Plant Atlas 2018). This perennial herb would have been observed during focused surveys if present.
Stylocline citroleum	oil neststraw	None/None/1B.1	None/List A	Chenopod scrub, coastal scrub, valley and foothill grassland; clay/annual herb/Mar–Apr/160–1,310	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).



Scientific Name	Common Name	Status (Federal/State/ CRPR)	East County MSCP/ County of San Diego	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Potential to Occur
Suaeda esteroa	estuary seablite	None/None/1B.2	None/List A	Marshes and swamps (coastal salt)/perennial herb/(May)July-Oct(Jan)/0- 15	Not expected to occur. Esturary seablite occurs west of Rancho San Diego, California, and is generally close to the coastline (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range and there is no suitable vegetation present. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Suaeda taxifolia	woolly seablite	None/None/4.2	None/List D	Coastal bluff scrub, coastal dunes, marshes and swamps (margins of coastal salt)/ perennial evergreen shrub/Jan–Dec/0–165	Not expected to occur. Woolly seablite occurs on the coastline and is generally found west of I-5 (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range and there is no suitable vegetation present. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Symphyotrichum defoliatum	San Bernardino aster	None/None/1B.2	None/None	Cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, valley and foothill grassland (vernally mesic); near ditches, streams, springs/perennial rhizomatous herb/July–Nov/5–6,695	Low potential to occur. San Bernardino sand aster occurs near springs and seeps (Reiser 2001). Springs and seeps were limited on site. This perennial herb would have been observed during focused surveys if present.
Tetracoccus dioicus	Parry's tetracoccus	None/None/1B.2	None/List A	Chaparral, coastal scrub/perennial deciduous shrub/Apr-May/540-3,280	Not expected to occur. The site is outside of the species' known elevation range.
Thermopsis californica var. semota	velvety false lupine	None/None/1B.2	Covered/List A	Cismontane woodland, lower montane coniferous forest, meadows and seeps, valley and foothill grassland/perennial rhizomatous herb/Mar–June/3,280–6,135	Low potential to occur. Velvety false lupine occurs generally north of Pine Valley (San Diego Plant Atlas 2018). This perennial herb would have been observed during focused surveys if present.



Scientific Name	Common Name	Status (Federal/State/ CRPR)	East County MSCP/ County of San Diego	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Potential to Occur
Thysanocarpus rigidus	rigid fringepod	None/None/1B.2	None/None	Pinyon and juniper woodland; dry rocky slopes/annual herb/Feb– May/1,965–7,220	Not expected to occur. No suitable vegetation present.
Viguiera laciniata	San Diego County viguiera	None/None/4.3	None/List D	Chaparral, coastal scrub/perennial shrub/Feb– June(Aug)/195–2,460	Not expected to occur. The site is outside of the species' known elevation range.
Viguiera purisimae	La Purisima viguiera	None/None/2B.3	None/List A	Coastal bluff scrub, chaparral/shrub/Apr– Sep/1,195–1,395	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
<i>Viola purpurea</i> ssp. <i>aurea</i>	golden violet	None/None/2B.2	None/List B	Great Basin scrub, pinyon and juniper woodland; sandy/perennial herb/Apr– June/3,280–8,200	Not expected to occur. No suitable vegetation present. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Xanthisma junceum	rush-like bristleweed	None/None/4.3	Covered/List D	Chaparral, coastal scrub/perennial herb/May– Jan/785–3,280	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Xylorhiza orcuttii Status Legend	Orcutt's woody- aster	None/None/1B.2	Covered/List A	Sonoran Desert scrub/perennial herb/Mar– Apr/0–1,200	Not expected to occur. Orcutt's woody-aster occurs in Anza Borrego Desert State Park and in the desert all the way to the Salton Sea (San Diego Plant Atlas 2018). The site is outside of the species' known elevation range.

Status Legend Federal

FC: Federal candidate for listing
FE: Federally listed as endangered
FT: Federally listed as threatened

State

SE: State-listed as endangered

SR: State rare

ST: State-listed as threatened

CRPR: California Rare Plant Rank

1B: Plants rare, threatened, or endangered in California and elsewhere2A: Plants presumed extirpated in California but common elsewhere

2B: Plants rare, threatened, or endangered in California, but more common elsewhere

3: Plants about which more information is needed—A Review List

4: Plants of limited distribution—A Watch List



Threat Rank

.1: Seriously threatened in California (more than 80% of occurrences threatened/high degree and immediacy of threat)

.2: Fairly threatened in California (20%–80% occurrences threatened/moderate degree and immediacy of threat)

.3: Not very threatened in California (<20% of occurrences threatened/low degree and immediacy of threat or no current threats known)

County of San Diego Multiple Species Conservation Program (MSCP), East County Plan

Covered: Covered under the plan

None: Not covered

County of San Diego MSCP Listed Species

List A: Plants rare, threatened, or endangered in California or elsewhere

List B: Plants rare, threatened, or endangered in California but more common elsewhere
List C: Plants that may be quite rare, but more information is needed to determine rarity status
List D: Plants of limited distribution and are uncommon, but not presently rare or endangered

None = not listed N.A. = not applicable

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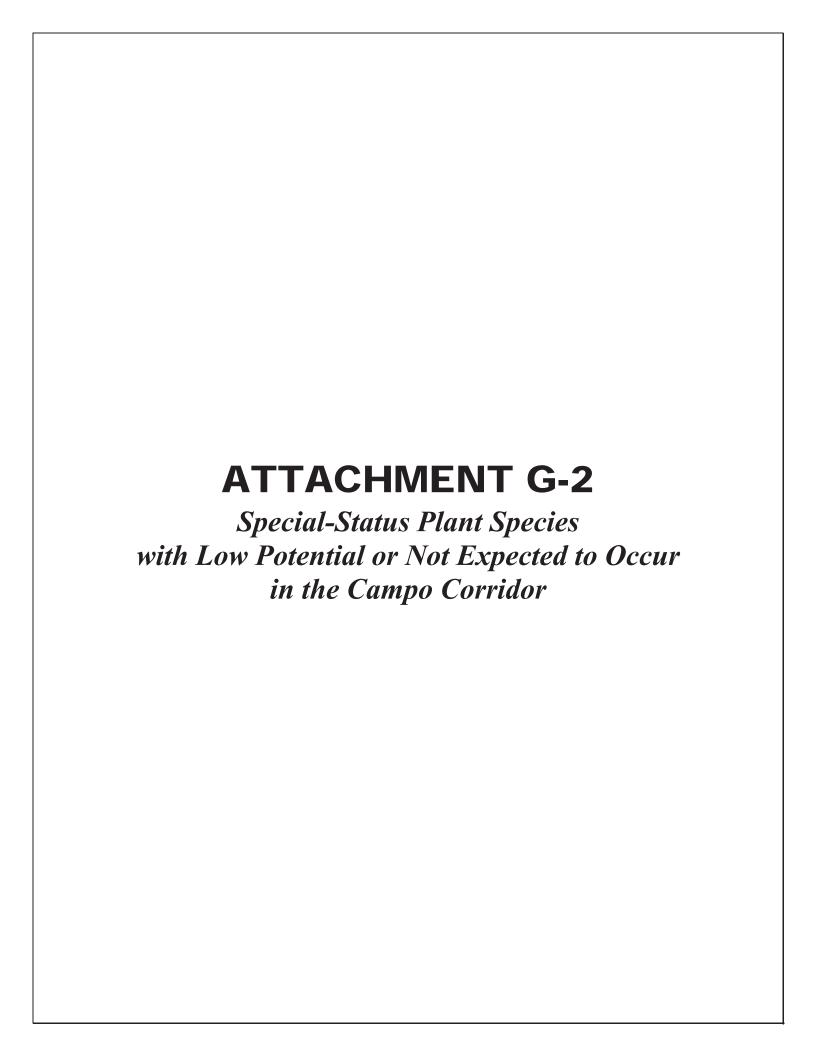
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Scientific Name	Common Name	Status (Federal/State/ CRPR)	East County MSCP/ County of San Diego	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Potential to Occur
Abronia maritima	red sand- verbena	None/None/4.2	None/List D	Coastal dunes/perennial herb/Feb-Nov/0-330	Not expected to occur. Red sand verbena occurs only on well-developed beach dunes (Reiser 2001), which do not occur on site. Generally, the site is outside of the species' known elevation range and there is no suitable vegetation present. Also, does not occur in vicinity (CDFW 2018; CNPS 2018).
Abronia villosa var. aurita	chaparral sand- verbena	None/None/1B.1	None/List A	Chaparral, coastal scrub, desert dunes; sandy/annual herb/(Jan)Mar-Sep/245- 5,250	Not expected to occur. Chaparral sand verbena has been documented around Camp Pendleton and near Fallbrook, California (SDNHM 2012). The project site is therefore outside of the geographic range this species would be expected to occur in. In addition, chaparral sand-verbena is more likely to be found in sandy floodplains (Reiser 2001).
Acanthomintha ilicifolia	San Diego thorn- mint	FT/SE/1B.1	Covered/List A	Chaparral, coastal scrub, valley and foothill grassland, vernal pools; clay, openings/annual herb/Apr– June/30–3,150	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Acmispon haydonii	pygmy lotus	None/None/1B.3	Covered/List A	Pinyon and juniper woodland, Sonoran desert scrub; rocky/perennial herb/Jan–June/1,705–3,935	Low potential to occur. Pygmy lotus occurs east of Jacumba, California. Pygmy lotus is more likely to occur in the high desert and desert region (SDNHM 2012).
Acmispon prostratus	Nuttall's acmispon	None/None/1B.1	None/List A	Coastal dunes, coastal scrub (sandy)/annual herb/Mar– June(July)/0–35	Not expected to occur. Nuttall's acmispon occurs west of Interstate (I) 15 (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Adolphia californica	California adolphia	None/None/2B.1	None/List B	Chaparral, coastal scrub, valley and foothill grassland; clay/perennial deciduous shrub/ Dec-May/30-2,430	Not expected to occur. California adolphia occurs west of El Cajon, California (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).



Scientific Name	Common Name	Status (Federal/State/ CRPR)	East County MSCP/ County of San Diego	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Potential to Occur
Agave shawii var. shawii	Shaw's agave	None/None/2B.1	None/List B	Coastal bluff scrub, coastal scrub; maritime succulent scrub/perennial leaf succulent/Sep-May/5-395	Not expected to occur. Shaw's agave occurs west of I-5 near the beach (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Ambrosia monogyra	singlewhorl burrobrush	None/None/2B.2	None/None	Chaparral, Sonoran desert scrub; sandy/perennial shrub/Aug-Nov/30-1640	Not expected to occur. The site is outside of the species' known elevation range.
Ambrosia chenopodiifolia	San Diego bur- sage	None/None/2B.1	None/List B	Coastal scrub/perennial shrub/Apr-June/180-510	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Ambrosia pumila	San Diego ambrosia	FE/None/1B.1	None/List A	Chaparral, coastal scrub, valley and foothill grassland, vernal pools; sandy loam or clay, often in disturbed areas, sometimes alkaline/perennial rhizomatous herb/Apr—Oct/65–1,360	Not expected to occur. San Diego ambrosia occurs in creek beds and dry drainages with a protective tree canopy (Reiser 2001). San Diego ambrosia occurs west of Crest, California (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Androsace elongata ssp. acuta	California androsace	None/None/4.2	None/List D	Chaparral, cismontane woodland, coastal scrub, meadows and seeps, pinyon and juniper woodland, valley and foothill grassland/annual herb/Mar–June/490–4,280	Not expected to occur. California androsace occurs north of Cuyamaca Rancho State Park (SDNHM 2012). California androsace grows in open montane grassy meadows within Cuyamaca Rancho State Park (Reiser 2001). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Aphanisma blitoides	aphanisma	None/None/1B.2	None/List A	Coastal bluff scrub, coastal dunes, coastal scrub; sandy or gravelly/annual herb/Feb– June/0–1,000	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Arctostaphylos glandulosa ssp. crassifolia	Del Mar manzanita	FE/None/1B.1	None/List A	Chaparral (maritime, sandy)/perennial evergreen shrub/Dec-June/0-1,200	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).



Scientific Name	Common Name	Status (Federal/State/ CRPR)	East County MSCP/ County of San Diego	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Potential to Occur
Arctostaphylos otayensis	Otay manzanita	None/None/1B.2	Covered/List A	Chaparral, cismontane woodland; metavolcanic/perennial evergreen shrub/Jan– Apr/900–5,575	Not expected to occur. Otay manzanita occurs west of Dulzura, California, within the Otay area and north up to Rancho San Diego, California (SDNHM 2012). Does not occur in vicinity (CDFW 2018; CNPS 2018). Otay manzanita occurs on metavolcanic peaks and soils that are shallow with exposed rock (Reiser 2001).
Arctostaphylos rainbowensis	Rainbow manzanita	None/None/1B.1	None/List A	Chaparral/perennial evergreen shrub/Dec– Mar/670–2,200	Not expected to occur. Rainbow manzanita occurs north of Escondido, and the majority of the population is near Rainbow, California, and Pala, California (SDNHM 2012). The project site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Artemisia palmeri	San Diego sagewort	None/None/4.2	None/List D	Chaparral, coastal scrub, riparian forest, riparian scrub, riparian woodland; sandy, mesic/perennial deciduous shrub/(Feb)May—Sep/45–3,000	Not expected to occur. This species occurs north of Dulzura and west of Descanso (SDNHM 2012). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Asplenium vespertinum	western spleenwort	None/None/4.2	None/List D	Chaparral, cismontane woodland, coastal scrub; rocky/perennial rhizomatous herb/Feb–June/590–3,280	Low potential to occur. This species is recorded west of Morena Village and west of Potrero (SDNHM 2012).
Astragalus crotalariae	Salton milk- vetch	None/None/4.3	Covered/List D	Sonoran desert scrub (sandy or gravelly)/perennial herb/Jan-Apr/195-820	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Astragalus deanei	Dean's milk- vetch	None/None/1B.1	Covered/List A	Chaparral, cismontane woodland, coastal scrub, riparian forest/perennial herb/Feb–May/245–2,280	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).



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Astragalus insularis var. harwoodii	Harwood's milk- vetch	None/None/2B.2	Covered/List B	Desert dunes, Mojavean desert scrub; sandy or gravelly/annual herb/Jan– May/0–2,330	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Astragalus lentiginosus var. borreganus	Borrego milk- vetch	None/None/4.3	Covered/List D	Mojavean desert scrub, Sonoran desert scrub; sandy/annual herb/ Feb-May/95-2,935	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Astragalus magdalenae var. peirsonii	Peirson's milk- vetch	FT/SE/1B.2	None/List A	Desert dunes/perennial herb/Dec-Apr/195-740	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Astragalus oocarpus	San Diego milk- vetch	None/None/1B.2	Covered/List A	Chaparral (openings), cismontane woodland/perennial herb/May-Aug/1,000-5,000	Low potential to occur. Collections of San Diego milkvetch are west of State Route (SR) 79 near Cuyamaca Rancho State Park and north of this area (SDNHM 2012).
Astragalus pachypus var. jaegeri	Jaeger's bush milk-vetch	None/None/1B.1	None/List A	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland; sandy or rocky/perennial shrub/Dec-June/1,195-3,200	Not expected to occur. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Astragalus tener var. titi	coastal dunes milk-vetch	FE/SE/1B.1	None/List A	Coastal bluff scrub (sandy), coastal dunes, coastal prairie (mesic); often vernally mesic areas/annual herb/Mar–May/0–165	Not expected to occur. Occurs on coastal dunes (Reiser 2001). The site is outside of the species' known elevation range and there is no suitable vegetation present. Also does not occur in vicinity (CDFW 2018; CNPS 2018).
Atriplex coulteri	Coulter's saltbush	None/None/1B.2	None/List A	Coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland; alkaline or clay/perennial herb/Mar-Oct/5-1,510	Not expected to occur. Coulter's saltbush is more typical on seabluff habitat (Reiser 2001). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).



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Atriplex pacifica	South Coast saltscale	None/None/1B.2	None/List A	Coastal bluff scrub, coastal dunes, coastal scrub, playas/annual herb/Mar-Oct/0-460	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Atriplex parishii	Parish's brittlescale	None/None/1B.1	None/List A	Chenopod scrub, playas, vernal pools; alkaline/annual herb/June-Oct/80-6,235	Not expected to occur. No suitable vegetation present. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Atriplex serenana var. davidsonii	Davidson's saltscale	None/None/1B.2	None/List A	Coastal bluff scrub, coastal scrub; alkaline/annual herb/Apr–Oct/30–655	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Ayenia compacta	California ayenia	None/None/2B.3	None/List B	Mojavean desert scrub, Sonoran desert scrub; rocky/perennial herb/Mar– Apr/490–3,595	Low potential to occur. This species is only known from areas north of Mount Laguna (SDNHM 2012). Rocky canyons and desert arroyos are the preferred habitat of California ayenia. California ayenia prefers the periphery of sandy washes (Reiser 2001).
Azolla microphylla	Mexican mosquito fern	None/None/4.2	None/List D	Marshes and swamps (ponds, slow water)/annual / perennial herb/Aug/95–330	Not expected to occur. The site is outside of the species' known elevation range. Also does not occur in vicinity (CDFW 2018; CNPS 2018).
Baccharis vanessae	Encinitas baccharis	FT/SE/1B.1	None/List A	Chaparral (maritime), cismontane woodland; sandstone/perennial deciduous shrub/ Aug,Oct,Nov/195–2,360	Not expected to occur. Generally occurs northwest of Alpine, California (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Berberis fremontii	Fremont barberry	None/None/2B.3	Covered/List C	Joshua tree woodland, pinyon and juniper woodland; rocky, sometimes granitic/perennial evergreen shrub/Mar–May/3,755–5,645	Low potential to occur. No suitable Joshua tree woodland or pinyon and juniper woodland in the study area. This species occurs in high desert chaparral and high desert badlands on fairly level terrain with granitic boulder fields (Reiser 2001). Fremont barberry is extremely rare (Reiser 2001). This species has only been recorded near Jacumba in San Diego County (CCH 2019).



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Berberis higginsiae	Higgins barberry	None/None/3.2	Covered/None	Chaparral, Sonoran desert scrub; rocky, sometimes granitic/perennial shrub/Mar-Apr/2,620-3,495	Not expected to occur. Records of this species are generally between Boulevard and Jacumba Hot Springs, east of the study area (CCH 2019).
Berberis nevinii	Nevin's barberry	FE/SE/1B.1	None/List A	Chaparral, cismontane woodland, coastal scrub, riparian scrub; sandy or gravelly/perennial evergreen shrub/(Feb)Mar–June/225– 2,705	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Bergerocactus emoryi	golden-spined cereus	None/None/2B.2	None/List B	Closed-cone coniferous forest, chaparral, coastal scrub; sandy/perennial stem succulent/May–June/5– 1,295	Not expected to occur. Golden-spined cereus occurs near the beach or within Otay (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Bloomeria clevelandii	San Diego goldenstar	None/None/1B.1	Covered/List A	Chaparral, coastal scrub, valley and foothill grassland, vernal pools; clay/perennial bulbiferous herb/Apr– May/160–1,525	Not expected to occur. San Diego goldenstar occurs west of Alpine, California (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Boechera hirshbergiae	Hirshberg's rockcress	None/None/1B.2	None/List A	Pebble (Pavement) plain/perennial herb/Mar– May/4,590–4,640	Not expected to occur. Occurs north of Cuyamaca Rancho State Park (SDNHM 2012). The site is outside of the species' known elevation range and there is no suitable pebble plain habitat present. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Brodiaea filifolia	thread-leaved brodiaea	FT/SE/1B.1	None/List A	Chaparral (openings), cismontane woodland, coastal scrub, playas, valley and foothill grassland, vernal pools; often clay/perennial bulbiferous herb/Mar– June/80–3,675	Not expected to occur. Thread-leaved brodiaea occurs north of Rancho Santa Fe, California, and is more likely to be found near Camp Pendleton, California (SDNHM 2012). Does not occur in vicinity (CDFW 2018; CNPS 2018).



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Brodiaea orcuttii	Orcutt's brodiaea	None/None/1B.1	Covered/List A	Closed-cone coniferous forest, chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, vernal pools; mesic, clay/perennial bulbiferous herb/May– July/95–5,550	Low potential to occur. Orcutt's brodiea occurs in vernally moist grasslands and around vernal pools with mina mound topography (Reiser 2001). Vernal pools were not present on site. Occurs west of Sunrise Highway within the southern mountain range and reaches the Pacific Ocean (SDNHM 2012).
Bursera microphylla	little-leaf elephant tree	None/None/2B.3	Covered/List B	Sonoran desert scrub (rocky)/perennial deciduous tree/June-July/655-2,295	Not expected to occur. The site is outside of the species' known elevation range. Little-leaf elephant plant occurs in the desert and high desert region (SDNHM 2012). Sonoran Desert scrub is the preferred habitat of little-leaf elephant tree, and prefers desert alluvial fan scrub and rocky slopes.
Calandrinia breweri	Brewer's calandrinia	None/None/4.2	None/List D	Chaparral, coastal scrub; sandy or loamy, disturbed sites and burns/annual herb/(Jan)Mar–June/30–4,005	Not expected to occur. Brewer's calandrinia occurs west of Pine Valley, California (SDNHM 2012). Does not occur in vicinity (CDFW 2018; CNPS 2018).
California macrophylla	round-leaved filaree	None/None/None	None/List B	Cismontane woodland, valley and foothill grassland; clay/annual herb/Mar– May/45–3,935	Low potential to occur. This species is known from west of Alpine, California (SDNHM 2012).
Calliandra eriophylla	pink fairy-duster	None/None/2B.3	Covered/List B	Sonoran desert scrub (sandy or rocky)/perennial deciduous shrub/Jan– Mar/390–4,920	Low potential to occur. This species is known to occur within Anza-Borrego Desert State Park and east of Jacumba, California (SDNHM 2012).
Calochortus catalinae	Catalina mariposa lily	None/None/4.2	None/List D	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland/perennial bulbiferous herb/(Feb)Mar– June/45–2,295	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).



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Calochortus dunnii	Dunn's mariposa lily	None/SR/1B.2	Covered/List A	Closed-cone coniferous forest, chaparral, valley and foothill grassland; gabbroic or metavolcanic, rocky/perennial bulbiferous herb/ (Feb)Apr–June/605– 6,005	Low potential to occur. Dunn's mariposa lily is generally located west of Pine Valley, California, and east of El Cajon, California (SDNHM 2012).
Camissoniopsis lewisii	Lewis' evening- primrose	None/None/3	None/List C	Coastal bluff scrub, cismontane woodland, coastal dunes, coastal scrub, valley and foothill grassland; sandy or clay/annual herb/Mar–May(June)/0–985	Not expected to occur. Lewis' evening primrose occurs west of Alpine, California, and generally on the coastline (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Carlowrightia arizonica	Arizona carlowrightia	None/None/2B.2	Covered/None/Lis t B	Sonoran desert scrub (sandy, granitic alluvium)/perennial deciduous shrub/Mar– May/935–1,410	Not expected to occur. The site is outside of the species' known elevation range. Arizona carlowrightia occurs near Borrego Springs and Agua Caliente. Arizona carlowrightia is found in Anza Borrego Desert State Park (SDNHM 2012).
Ceanothus cyaneus	Lakeside ceanothus	None/None/1B.2	Covered/List A	Closed-cone coniferous forest, chaparral/perennial evergreen shrub/Apr– June/770–2,475	Not expected to occur. Lakeside ceanothus occurs west of Alpine, California (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Ceanothus otayensis	Otay Mountain ceanothus	None/None/1B.2	None/None	Chaparral (metavolcanic or gabbroic)/perennial evergreen shrub/Jan–Apr/1,965–3,610	Low potential to occur. Otay Mountain ceanothus occurs generally west of Campo, California, but commonly west of Potrero, California (SDNHM 2012).
Ceanothus verrucosus	wart-stemmed ceanothus	None/None/2B.2	None/List B	Chaparral/perennial evergreen shrub/Dec– May/0–1,245	Not expected to occur. Wart-stemmed ceanothus occurs generally west of I-15. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).



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Centromadia parryi ssp. australis	southern tarplant	None/None/1B.1	None/List A	Marshes and swamps (margins), valley and foothill grassland (vernally mesic), vernal pools/annual herb/May–Nov/0–1,575	Not expected to occur. Southern tarplant occurs near Ramona, California; Del Dios, California; and Solana Beach, California (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Centromadia pungens ssp. laevis	smooth tarplant	None/None/1B.1	None/List A	Chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grassland; alkaline/annual herb/Apr-Sep/0-2,100	Not expected to occur. Smooth tarplant occurs west of the SR-79 and on Camp Pendleton (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Chaenactis carphoclinia var. peirsonii	Peirson's pincushion	None/None/1B.3	Covered/List A	Sonoran desert scrub (sandy)/annual herb/Mar– Apr/5–1,640	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Chaenactis glabriuscula var. orcuttiana	Orcutt's pincushion	None/None/1B.1	None/List A	Coastal bluff scrub (sandy), coastal dunes/annual herb/Jan-Aug/0-330	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present. Also does not occur in vicinity (CDFW 2018; CNPS 2018).
Chaenactis parishii	Parish's chaenactis	None/None/1B.3	None/List A	Chaparral (rocky) /perennial herb/May-July/4,265-8,200	Not expected to occur. The site is outside of the species' known elevation range. Also does not occur in vicinity (CDFW 2018; CNPS 2018).
Chamaebatia australis	southern mountain misery	None/None/4.2	Covered/List D	Chaparral (gabbroic or metavolcanic)/perennial evergreen shrub/Nov– May/980–3,345	Low potential to occur. This species is only recorded west of Potrero (SDNHM 2012).
Chloropyron maritimum ssp. maritimum	salt marsh bird's-beak	FE/SE/1B.2	None/List A	Coastal dunes, marshes and swamps (coastal salt)/annual herb (hemiparasitic)/May–Oct(Nov)/0–100	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present. Also does not occur in vicinity (CDFW 2018; CNPS 2018).
Chorizanthe orcuttiana	Orcutt's spineflower	FE/SE/1B.1	None/List A	Closed-cone coniferous forest, chaparral (maritime), coastal scrub; sandy	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).



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				openings/annual herb/Mar- May/5-410	
Chorizanthe parryi var. fernandina	San Fernando Valley spineflower	FC/SE/1B.1	None/List A	Coastal scrub (sandy), valley and foothill grassland/annual herb/Apr-July/490-4,005	Not expected to occur. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Chorizanthe polygonoides var. longispina	long-spined spineflower	None/None/1B.2	Covered/List A	Chaparral, coastal scrub, meadows and seeps, valley and foothill grassland, vernal pools; often clay/annual herb/Apr–July/95–5,020	Low potential to occur. Long-spined spineflower occurs west of Pine Valley, California (SDNHM 2012).
Cistanthe maritima	seaside cistanthe	None/None/4.2	None/List D	Coastal bluff scrub, coastal scrub, valley and foothill grassland; sandy/annual herb/(Feb)Mar– June(Aug)/15–985	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Clarkia delicata	delicate clarkia	None/None/1B.2	Covered/List A	Chaparral, cismontane woodland; often gabbroic/annual herb/Apr– June/770–3,280	Low potential to occur. Distribution is generally west of Pine Valley, California (SDNHM 2012).
Clinopodium chandleri	San Miguel savory	None/None/1B.2	None/List A	Chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland; rocky, gabbroic or metavolcanic/perennial shrub/Mar–July/390–3,525	Not expected to occur. San Miguel savory occurs west of Alpine, California (SDNHM 2012). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Colubrina californica	Las Animas colubrina	None/None/2B.3	None/List B	Mojavean Desert scrub, Sonoran Desert scrub/perennial deciduous shrub/Apr–June/30–3,280	Not expected to occur. Los Aminas colubrina occurs in the desert region (SDNHM 2012). Does not occur in vicinity (CDFW 2018; CNPS 2018).



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Comarostaphylis diversifolia ssp. diversifolia	summer holly	None/None/1B.2	None/List A	Chaparral, cismontane woodland/perennial evergreen shrub/Apr– June/95–2,590	Not expected to occur. Occurs west of Barret Junction, California (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Convolvulus simulans	small-flowered morning-glory	None/None/4.2	None/List D	Chaparral (openings), coastal scrub, valley and foothill grassland; clay, serpentinite seeps/annual herb/ Mar-July/95-2,430	Not expected to occur. Small-flowered morning-glory occurs west of Alpine, California (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Corethrogyne filaginifolia var. incana	San Diego sand aster	None/None/1B.1	None/None	Coastal bluff scrub, Chaparral, Coastal scrub/perennial herb/June– Sep/5–375	Not expected to occur. The site is outside of the species' known elevation range.
Corethrogyne filaginifolia var. linifolia	Del Mar Mesa sand aster	None/None/1B.1	None/List A	Coastal bluff scrub, chaparral (maritime, openings), coastal scrub; sandy/perennial herb/May, July,Aug,Sep/45–490	Not expected to occur. Del Mar Mesa sand aster occurs near the beach (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Cryptantha ganderi	Gander's cryptantha	None/None/1B.1	Covered/List A	Desert dunes, Sonoran Desert scrub (sandy)/annual herb/Feb-May/520-1,310	Not expected to occur. Gander's cryptantha occurs in the desert region and is found north of Anza Borrego Desert State Park (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Cylindropuntia californica var. californica	snake cholla	None/None/1B.1	None/List A	Chaparral, coastal scrub/perennial stem succulent/Apr-May/95-490	Not expected to occur. Snake cholla is distributed west of El Cajon, California (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Cylindropuntia fosbergii	pink teddy-bear cholla	None/None/1B.3	Covered/None	Sonoran Desert scrub/perennial stem succulent/Mar-May/275-2,790	Not expected to occur. Pink teddy-bear cholla is distributed north of Mount Laguna (SDNHM 2012). The site is outside of the species' known elevation range.



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Cylindropuntia wolfii	Wolf's cholla	None/None/4.3	Covered/List D	Sonoran Desert scrub/perennial stem succulent/Mar-May/325- 3,935	Low potential to occur. Wolf's cholla is generally distributed east of Jacumba, California, in the desert region (SDNHM 2012).
Deinandra conjugens	Otay tarplant	FT/SE/1B.1	None/List A	Coastal scrub, valley and foothill grassland; clay/annual herb/(Apr)May–June/80–985	Not expected to occur. Otay tarplant populations occur west of Dulzura, California (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Deinandra mohavensis	Mojave tarplant	None/SE/1B.3	Covered/List A	Chaparral, coastal scrub, riparian scrub; mesic/annual herb/(May)June– Oct(Jan)/2,095–5,250	Not expected to occur. Populations of Mojave tarplant occur north of Warner Springs, California (SDNHM 2012). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Deinandra paniculata	paniculate tarplant	None/None/4.2	None/List D	Coastal scrub, valley and foothill grassland, vernal pools; usually vernally mesic, sometimes sandy/annual herb/(Mar)Apr-Nov/80-3,085	Not expected to occur. Paniculate tarplant populations are north of Cuyamaca Rancho State Park (SDNHM 2012). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Delphinium hesperium ssp. cuyamacae	Cuyamaca larkspur	None/SR/1B.2	Covered/None	Lower montane coniferous forest, meadows and seeps, vernal pools; mesic/perennial herb/May– July/4,000–5,350	Not expected to occur. Cuyamaca larkspur occurs north of Pine Valley, California (SDNHM 2012).
Dichondra occidentalis	western dichondra	None/None/4.2	None/List D	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland/perennial rhizomatous herb/(Jan)Mar– July/160–1,640	Not expected to occur. Western dichondra occurs west of Alpine, California (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).



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Dicranostegia orcuttiana	Orcutt's bird's- beak	None/None/2B.1	None/List B	Coastal scrub/annual herb (hemiparasitic)/(Mar)Apr– July(Sep)/30–1,150	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Dieteria asteroides var. lagunensis	Mount Laguna aster	None/SR/2B.1	Covered/List B	Cismontane woodland, lower montane coniferous forest/perennial herb/(May)July–Aug/2,590– 7,875	Low potential to occur. Mount Laguna aster is known only form the Mount Laguna area north of the biological study area (SDNHM 2012).
Diplacus aridus	low bush monkeyflower	None/None/4.3	Covered/List D	Chaparral (rocky), Sonoran Desert scrub/perennial evergreen shrub/Apr– July/2,460–3,935	Low potential to occur. Low bush monkey flower occurs in the high and low desert near Jacumba, California, and farther east (SDNHM 2012).
Diplacus clevelandii	Cleveland's bush monkeyflower	None/None/4.2	None/List D	Chaparral, cismontane woodland, lower montane coniferous forest; gabbroic, often in disturbed areas, openings, rocky/perennial rhizomatous herb/Apr– July/1,475–6,560	Low potential to occur. Cleveland's bush monkeyflower occurs west of Pine Valley, California (SDNHM 2012).
Ditaxis serrata var. californica	California ditaxis	None/None/3.2	None/List C	Sonoran Desert scrub/perennial herb/Mar– Dec/95–3,280	Not expected to occur. California ditaxis occurs in Anza Borrego Desert State Park (SDNHM 2012). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Downingia concolor var. brevior	Cuyamaca Lake downingia	None/SE/1B.1	Covered/List A	Meadows and seeps (vernally mesic), vernal pools/annual herb/May– July/4,525–4,920	Not expected to occur. Cuyamaca Lake downingia occurs north of Cuyamca Rancho State Park (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Dudleya alainae	Banner dudleya	None/None/3.2	None/List C	Chaparral, lower montane coniferous forest, Sonoran Desert scrub; rocky/ perennial herb/ Apr–July/2,425–3,935	Not expected to occur. Does not occur in vicinity (CDFW 2018; CNPS 2018). Records in San Diego County are near Julian (CCH 2019).



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Dudleya attenuata ssp. attenuata	Orcutt's dudleya	None/None/2B.1	None/List B	Coastal bluff scrub, chaparral, coastal scrub; rocky or gravelly/perennial herb/May–July/5–165	Not expected to occur. Orcutt's dudleya occurs near the border in Border Field State Park right next to the ocean (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Dudleya blochmaniae ssp. blochmaniae	Blochman's dudleya	None/None/1B.1	None/List A	Coastal bluff scrub, chaparral, coastal scrub, valley and foothill grassland; rocky, often clay or serpentinite/ perennial herb/Apr–June/15– 1,475	Not expected to occur. Blochman's dudleya occurs near the ocean (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Dudleya brevifolia	short-leaved dudleya	None/SE/1B.1	None/List A	Chaparral (maritime, openings), coastal scrub; Torrey sandstone/perennial herb/Apr–May/95–820	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Dudleya multicaulis	many-stemmed dudleya	None/None/1B.2	None/List A	Chaparral, coastal scrub, valley and foothill grassland; often clay/perennial herb/Apr-July/45-2,590	Not expected to occur. Many stemmed dudleya occurs near San Clemente, California (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Dudleya variegata	variegated dudleya	None/None/1B.2	None/List A	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland, vernal pools; clay/perennial herb/Apr–June/5–1,905	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Dudleya viscida	sticky dudleya	None/None/1B.2	None/List A	Coastal bluff scrub, chaparral, cismontane woodland, coastal scrub; rocky/perennial herb/May– June/30–1,805	Not expected to occur. Sticky dudleya occurs near Oceanside, California, and Camp Pendleton, California (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).



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Ericameria cuneata var. macrocephala	Laguna Mountains goldenbush	None/None/1B.3	Covered/List A	Chaparral (granitic)/perennial shrub/Sep-Dec/3,920-6,070	Low potential to occur. Laguna Mountains goldenbush occurs west of Boulder Oaks and Mount Laguna (SDNHM 2012).
Ericameria palmeri var. palmeri	Palmer's goldenbush	None/None/1B.1	Covered/List B	Chaparral, coastal scrub; mesic/perennial evergreen shrub/(July)Sep-Nov/95- 1,970	Not expected to occur. Palmer's goldenbush occurs west of Alpine, California. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Eriogonum evanidum	vanishing wild buckwheat	None/None/1B.1	Covered/List A	Chaparral, cismontane woodland, lower montane coniferous forest, pinyon and juniper woodland; sandy or gravelly/annual herb/July–Oct/3,605–7,300	Not expected to occur. Does not occur in vicinity (CDFW 2018; CNPS 2018). Records from San Diego County are north of Pine Valley (CCH 2019).
Eryngium aristulatum var. parishii	San Diego button-celery	FE/SE/1B.1	None/List A	Coastal scrub, valley and foothill grassland, vernal pools; mesic/annual / perennial herb/Apr–June/65–2,035	Not expected to occur. San Diego button celery generally occurs west of Alpine, California (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Eryngium pendletonense	Pendleton button-celery	None/None/1B.1	None/List A	Coastal bluff scrub, valley and foothill grassland, vernal pools; clay, vernally mesic/perennial herb/Apr– June(July)/45–360	Not expected to occur. Pendleton button celery only occurs on Camp Pendleton (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Erythranthe diffusa	Palomar monkeyflower	None/None/4.3	Covered/List D	Chaparral, lower montane coniferous forest; sandy or gravelly/annual herb/Apr– June/4,000–6,005	Low potential to occur. Palomar monkeyflower occurs west of Mount Laguna (SDNHM 2012).
Eucnide rupestris	annual rock- nettle	None/None/2B.2	None/List B	Sonoran Desert scrub/annual herb/Dec– Apr/1,640–1,970	Not expected to occur. Annual rock nettle occurs in the desert region and just south of Anza Borrego Desert State Park (SDNHM 2012). The site is outside of the species' known elevation range.



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Euphorbia abramsiana	Abrams' spurge	None/None/2B.2	None/None	Mojavean Desert scrub, Sonoran Desert scrub; sandy/annual herb/(Aug)Sep-Nov/-5- 4,300	Low potential to occur. This species is occurs far north of the biological study area in the Anza-Borrego Desert State Park area in San Diego County (SDNHM 2012).
Euphorbia arizonica	Arizona spurge	None/None/2B.3	None/List B	Sonoran Desert scrub (sandy)/perennial herb/Mar– Apr/160–985	Not expected to occur. Arizona spurge occurs west of Borrego Springs (SDNHM 2012). The site is outside of the species' known elevation range.
Euphorbia misera	cliff spurge	None/None/2B.2	None/List B	Coastal bluff scrub, coastal scrub, Mojavean Desert scrub; rocky/perennial shrub/Dec-Aug(Oct)/30-1,640	Not expected to occur. Cliff spurge occurs near the coast and in the Otay area (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Euphorbia platysperma	flat-seeded spurge	None/None/1B.2	None/List A	Desert dunes, Sonoran Desert scrub (sandy)/annual herb/Feb-Sep/210-330	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Euphorbia revoluta	revolute spurge	None/None/4.3	None/List D	Mojavean Desert scrub (rocky)/annual herb/Aug– Sep/3,590–10,170	Not expected to occur. No suitable vegetation present. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Ferocactus viridescens	San Diego barrel cactus	None/None/2B.1	None/List B	Chaparral, coastal scrub, valley and foothill grassland, vernal pools/perennial stem succulent/May–June/5– 1,475	Not expected to occur. San Diego barrel cactus occurs west of El Cajon, California (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Frankenia palmeri	Palmer's frankenia	None/None/2B.1	None/List B	Coastal dunes, marshes and swamps (coastal salt), playas/perennial herb/May–July/0–35	Not expected to occur. Palmer's frankenia occurs west of I-5 along the coast in marshes (SDNHM 2012). The site is outside of the species' known elevation range and there is no suitable vegetation present. Does not occur in vicinity (CDFW 2018; CNPS 2018).



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Fremontodendron mexicanum	Mexican flannelbush	FE/SR/1B.1	None/List A	Closed-cone coniferous forest, chaparral, cismontane woodland; gabbroic, metavolcanic, or serpentinite/perennial evergreen shrub/Mar– June/30–2,350	Not expected to occur. Mexican flannelbush occurs generally near the Otay area (SDNHM 2012). The site is outside of the species' known elevation range.
Fritillaria biflora	Chocolate lily	None/None/None	None/List D	Coastal scrub, chaparral, valley and foothill grassland; sometimes clay, cobbly loam/perennial herb/Feb–June/1,030–3,379	Low potential to occur. Chocolate lily occurs west of Descanso, California (SDNHM 2012). Chocolate lily does not occur in the Campo/Boulevard area (SDNHM 2012).
Funastrum utahense	Utah vine milkweed	None/None/4.2	None/List D	Mojavean Desert scrub, Sonoran Desert scrub; sandy or gravelly/perennial herb/(Mar)Apr-June(Sep- Oct)/325-4,710	Not expected to occur. Utah vine milkweed occurs far east and northeast of Jacumba, California (SDNHM 2012). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Galium angustifolium ssp. borregoense	Borrego bedstraw	None/SR/1B.3	Covered/List A	Sonoran Desert scrub (rocky)/perennial herb/Mar(May)/1,145–4,100	Low potential to occur. Borrego bedstraw occurs in Anza Borrego Desert State Park and near Borrego Springs, California (SDNHM 2012).
Galium angustifolium ssp. jacinticum	San Jacinto Mountains bedstraw	None/None/1B.3	None/List A	Lower montane coniferous forest/perennial herb/June– Aug/4,425–6,890	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable coniferous forest vegetation present.
Galium johnstonii	Johnston's bedstraw	None/None/4.3	None/List D	Chaparral, lower montane coniferous forest, pinyon and juniper woodland, riparian woodland/ perennial herb/June– July/4,000–7,545	Not expected to occur. Does not occur in vicinity (CDFW 2018; CNPS 2018). This species is recorded at and north of Mt. Laguna (CCH 2019).



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Githopsis diffusa ssp. filicaulis	Mission Canyon bluecup	None/None/3.1	None/List C	Chaparral (mesic, disturbed areas)/annual herb/Apr–June/1,475–2,295	Not expected to occur. Mission canyon bluecup is west of Pine Valley (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Grindelia hallii	San Diego gumplant	None/None/1B.2	Covered/List A	Chaparral, lower montane coniferous forest, meadows and seeps, valley and foothill grassland/ perennial herb/May– Oct/605–5,725	Low potential to occur. San Diego gumplant occurs generally north of Pine Valley, California (SDNHM 2012).
Harpagonella palmeri	Palmer's grapplinghook	None/None/4.2	Covered/List D	Chaparral, coastal scrub, valley and foothill grassland; clay; open grassy areas within shrubland/annual herb/Mar–May/65–3,135	Not expected to occur. Palmer's grapplinghook occurs west of Pine Valley, California, and in the high desert near Jacumba, California (SDNHM 2012).
Hazardia orcuttii	Orcutt's hazardia	None/ST/1B.1	None/List A	Chaparral (maritime), coastal scrub; often clay/perennial evergreen shrub/Aug–Oct/260–280	Not expected to occur. Orcutt's hazardia occurs near Encinitas, California, and Rancho Santa Fe, California (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Herissantia crispa	curly herissantia	None/None/2B.3	Covered/List B	Sonoran Desert scrub/annual/perennial herb/(Apr)Aug-Sep/2,295- 2,380	Not expected to occur. Curly herissantia occurs near Anza Borrego Desert State Park (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Hesperocyparis stephensonii	Cuyamaca cypress	None/None/1B.1	Covered/List A	Closed-cone coniferous forest, chaparral, cismontane woodland, riparian forest; gabbroic/perennial evergreen tree/N.A./3,395–5,595	Low potential to occur. Cuyamaca cypress has a narrow distribution just west of Cuyamaca Rancho State Park (SDNHM 2012).



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Heterotheca sessiliflora ssp. sanjacintensis	Sessileflower false goldenaster	None/None/None	None/List D	Montane habitats; reported to be endemic to Mount Palomar and the San Jacinto Mountains (Reiser 2001)/perennial herb/July– Sep/2,200–7,218	Not expected to occur. This species is endemic to the Mount Palomar and the San Jacinto Mountains (Reiser 2001).
Heuchera brevistaminea	Laguna Mountains alumroot	None/None/1B.3	Covered/List A	Broadleafed upland forest, chaparral, cismontane woodland, riparian forest; rocky/perennial rhizomatous herb/Apr–July(Sep)/4,490– 6,560	Not expected to occur. Laguna Mountains alumroot occurs north of Mount Laguna, California (SDNHM 2012). The site is outside of the species' known elevation range.
Heuchera rubescens var. versicolor	San Diego County alumroot	None/None/3.3	None/List B	Chaparral, lower montane coniferous forest; rocky/perennial rhizomatous herb/May–June/4,920–13,125	Not expected to occur. San Diego county alumroot occurs north of Mount Laguna, California (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Holocarpha virgata ssp. elongata	graceful tarplant	None/None/4.2	Covered/List D	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland/annual herb/May– Nov/195–3,610	Not expected to occur. Graceful tarplant occurs west of Alpine, California, and north of Ramona, California (SDNHM 2012). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Hordeum intercedens	vernal barley	None/None/3.2	None/List C	Coastal dunes, coastal scrub, valley and foothill grassland (saline flats and depressions), vernal pools/ annual herb/Mar–June/15–3,280	Not expected to occur. No suitable saline habitats present. This species occurs west of Potrero (CCH 2019).
Horkelia cuneata var. puberula	mesa horkelia	None/None/1B.1	None/List A	Chaparral (maritime), cismontane woodland, coastal scrub; sandy or gravelly/perennial herb/Feb– July(Sep)/225–2,655	Not expected to occur. Mesa horkelia occurs north of Oceanside, California (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).



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Horkelia truncata	Ramona horkelia	None/None/1B.3	Covered/List A	Chaparral, cismontane woodland; clay, gabbroic/perennial herb/May–June/1,310–4,265	Not expected to occur. Ramona horkelia occurs west of Pine Valley, California (SDNHM 2012). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Horsfordia newberryi	Newberry's velvet-mallow	None/None/4.3	None/List D	Sonoran Desert scrub (rocky)/perennial shrub/ Feb,Apr,Nov,Dec/5-2,625	Not expected to occur. The site is outside of the species' known elevation range.
Hosackia crassifolia var. otayensis	Otay Mountain lotus	None/None/1B.1	None/List A	Chaparral (metavolcanic, often in disturbed areas)/perennial herb/May– Aug/1,245–3,295	Not expected to occur. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Hulsea californica	San Diego sunflower	None/None/1B.3	Covered/List A	Chaparral, lower montane coniferous forest, upper montane coniferous forest; openings and burned areas/perennial herb/Apr–June/3,000–9,565	Low potential to occur. There is suitable chaparral habitat for this species, but this species is known from north of Morena Village (SDNHM 2012).
Hulsea mexicana	Mexican hulsea	None/None/2B.3	Covered/List B	Chaparral (volcanic, often on burns or disturbed areas)/ annual/ perennial herb/Apr– June/3,935–3,935	Low potential to occur. This species is recorded from Jacumba and Mt. Laguna and not the Campo area (CCH 2019).
Hymenothrix wrightii	Wright's hymenothrix	None/None/4.3	None/List D	Cismontane woodland, lower montane coniferous forest, valley and foothill grassland/perennial herb/June–Oct/4,590–5,085	Not expected to occur. Wright's hymenothrix occurs north of Pine Valley, California (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Ipomopsis tenuifolia	slender-leaved ipomopsis	None/None/2B.3	None/List B	Chaparral, pinyon and juniper woodland, Sonoran Desert scrub; gravelly or rocky/perennial herb/Mar–May/325–3,935	Low potential to occur. Slender-leaved ipomospsis generally occurs east of Boulevard, California, in the high desert region of Jacumba, California (SDNHM 2012).



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Isocoma menziesii var. decumbens	decumbent goldenbush	None/None/1B.2	None/List A	Chaparral, coastal scrub (sandy, often in disturbed areas)/perennial shrub/Apr– Nov/30–445	Not expected to occur. Decumbent goldenbush occurs west of Alpine, California (SDNHM 2012). The site is outside of the species' known elevation range.
Iva hayesiana	San Diego marsh-elder	None/None/2B.2	None/List B	Marshes and swamps, playas/perennial herb/Apr– Oct/30–1,640	Not expected to occur. San Diego marsh-elder occurs west of Alpine, California (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Johnstonella costata	ribbed cryptantha	None/None/4.3	Covered/List D	Desert dunes, Mojavean Desert scrub, Sonoran Desert scrub; sandy/annual herb/Feb-May/-195-1,640	Not expected to occur. Ribbed cryptantha occurs in the desert region (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Johnstonella holoptera	winged cryptantha	None/None/4.3	None/List D	Mojavean Desert scrub, Sonoran Desert scrub/annual herb/Mar– Apr/325–5,545	Not expected to occur. Winged cryptantha occurs in the desert region (SDNHM 2012). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Juglans californica	Southern California black walnut	None/None/4.2	None/List D	Chaparral, cismontane woodland, coastal scrub, riparian woodland; alluvial/perennial deciduous tree/Mar-Aug/160-2,955	Not expected to occur. Southern California black walnut occurs north of Julian, California, and west of Alpine, California (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Juncus acutus ssp. leopoldii	southwestern spiny rush	None/None/4.2	None/List D	Coastal dunes (mesic), meadows and seeps (alkaline seeps), marshes and swamps (coastal salt)/perennial rhizomatous herb/ (Mar)May– June/5–2,955	Not expected to occur. The site is outside of the species' known elevation range. Also does not occur in vicinity (CDFW 2018; CNPS 2018).
Juncus cooperi	Cooper's rush	None/None/4.3	None/List D	Meadows and seeps (mesic, alkaline or saline)/perennial herb/Apr–May(Aug)/-850–5,805	Not expected to occur. Cooper's rush is located just north of Jacumba Hot Springs, California (SDNHM 2012). No suitable alkaline or saline meadows and seeps present. Does not occur in vicinity (CDFW 2018; CNPS 2018).



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Lasthenia glabrata ssp. coulteri	Coulter's goldfields	None/None/1B.1	None/List A	Marshes and swamps (coastal salt), playas, vernal pools/annual herb/Feb- June/0-4,005	Not expected to occur. Coulter's goldfields occur west of El Cajon, California (SDNHM 2012). No suitable vegetation present. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Lepechinia cardiophylla	heart-leaved pitcher sage	None/None/1B.2	None/List A	Closed-cone coniferous forest, chaparral, cismontane woodland/perennial shrub/Apr–July/1,705–4,495	Not expected to occur. Heart-leaved pitcher sage occurs just northeast of Poway, California (SDNHM 2012). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Lepechinia ganderi	Gander's pitcher sage	None/None/1B.3	None/List A	Closed-cone coniferous forest, chaparral, coastal scrub, valley and foothill grassland; gabbroic or metavolcanic/perennial shrub/June–July/1,000– 3,295	Not expected to occur. Gander's pitcher sage occurs west of Dulzura, California (SDNHM 2012). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Lepidium flavum var. felipense	Blair Valley pepper-grass	None/None/1B.2	Covered/List A	Pinyon and juniper woodland, Sonoran Desert scrub; sandy/annual herb/Mar–May/1,490–2,755	Not expected to occur. Blair Valley pepper-grass occurs in Anza Borrego Desert State Park (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
<i>Lepidium virginicum</i> var. <i>robinsonii</i>	Robinson's pepper-grass	None/None/4.3	None/List A	Chaparral, coastal scrub/annual herb/Jan– July/0–2,905	Not expected to occur. Robinson's pepper-grass occurs west of Pine Valley, California (SDNHM 2012). The site is outside of the species' known elevation range.
Leptosiphon floribundus ssp. hallii	Santa Rosa Mountains leptosiphon	None/None/1B.3	None/List A	Pinyon and juniper woodland, Sonoran Desert scrub/perennial herb/May– July(Nov)/3,280–6,560	Not expected to occur. Santa Rosa Mountains leptosiphon occurs just west of Borrego Springs, California (SDNHM 2012). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Leptosyne maritima	sea dahlia	None/None/2B.2	None/List B	Coastal bluff scrub, coastal scrub/perennial herb/Mar– May/15–490	Not expected to occur. Sea dahlia occurs west of I-5 along the coast (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).



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Lessingia glandulifera var. tomentosa	Warner Springs lessingia	None/None/1B.1	Covered/List A	Chaparral (sandy)/annual herb/Aug,Oct/2,850-4,005	Not expected to occur. Warner Springs lessingia occurs north of Santa Ysabel, California (SDNHM 2012). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Lewisia brachycalyx	short-sepaled lewisia	None/None/2B.2	Covered/List B	Lower montane coniferous forest, meadows and seeps; mesic/perennial herb/(Feb)Apr– June(July)/4,490–7,545	Not expected to occur. Short-sepaled lewisia occurs north of Cuyamaca Rancho State Park (SDNHM 2012). The site is outside of the species' known elevation range. Also does not occur in vicinity (CDFW 2018; CNPS 2018).
Lilium humboldtii ssp. ocellatum	ocellated Humboldt lily	None/None/4.2	Covered/List D	Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, riparian woodland; openings/perennial bulbiferous herb/Mar– July(Aug)/95–5,905	Not expected to occur. Ocellated Humboldt lily occurs north and west of Pine Valley, California (SDNHM 2012). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Lilium parryi	lemon lily	None/None/1B.2	Covered/List A	Lower montane coniferous forest, meadows and seeps, riparian forest, upper montane coniferous forest; mesic/perennial bulbiferous herb/July–Aug/4,000–9,005	Not expected to occur. Lemon lily occurs near Palomar Mountain (SDNHM 2012). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Limnanthes alba ssp. parishii	Parish's meadowfoam	None/SE/1B.2	Covered/List A	Lower montane coniferous forest, meadows and seeps, vernal pools; vernally mesic/annual herb/Apr– June/1,965–6,560	Low potential to occur. Parish's meadowfoam occurs north of Mount Laguna, California (SDNHM 2012).
Linanthus maculatus ssp. emaculatus	Jacumba Mountains linanthus	None/None/1B.1	None/None	Desert dunes (edges), Sonoran Desert scrub; sandy or course, opaque- white, decomposed granite soils of washes and on flats near wash margins/annual	Not expected to occur. Jacumba Mountains occurs just west of Ocotillo, California, in the desert region (SDNHM 2012). The site is outside of the species' known elevation range.



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				herb/(Mar)Apr(May)/ 1,295-1,920	
Linanthus orcuttii	Orcutt's linanthus	None/None/1B.3	Covered/List A	Chaparral, lower montane coniferous forest, pinyon and juniper woodland; openings/annual herb/May– June/3,000–7,035	Low potential to occur. Orcutt's linanthus occurs north of Boulder Oaks, California (SDNHM 2012).
Lupinus albifrons var. medius	Mountain Springs bush Iupine	None/None/1B.3	Covered/List A	Pinyon and juniper woodland, Sonoran Desert scrub/perennial shrub/Mar– May/1,390–4,495	Low potential to occur. This species occurs east of the project near Jacumba Hot Spring north to Mt. Laguna (CCH 2019).
Lycium californicum	California box- thorn	None/None/4.2	None/List D	Coastal bluff scrub, coastal scrub/perennial shrub/(Dec)Mar, June, July, Aug/15–490	Not expected to occur. California box-thorn occurs west of Rancho San Diego (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Lycium parishii	Parish's desert- thorn	None/None/2B.3	Covered/List B	Coastal scrub, Sonoran Desert scrub/perennial shrub/Mar-Apr/440-3,280	Not expected to occur. Parish's desert-thorn occurs near Agua Caliente County Park (SDNHM 2012).
Lyrocarpa coulteri	Palmer's lyrepod	None/None/4.3	None/List D	Sonoran Desert scrub (gravelly or rocky)/perennial herb/Dec-Apr/390-2,610	Not expected to occur. Palmer's lyrepod occurs north of Mount Laguna in Anza Borrego Desert State Park (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Malacothamnus aboriginum	Indian Valley bush-mallow	None/None/1B.2	Covered/List A	Chaparral, cismontane woodland; rocky, granitic, often in burned areas/perennial deciduous shrub/Apr–Oct/490–5,575	Not expected to occur. Indian Valley bush-mallow occurs north of Pine Valley, California (SDNHM 2012). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Malperia tenuis	brown turbans	None/None/2B.3	None/List B	Sonoran Desert scrub (sandy, gravelly)/annual herb/(Feb)Mar-Apr/45-1,100	Not expected to occur. Brown turbans occurs in the desert region (SDNHM 2012). The site is outside of the species' known elevation range.



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Matelea parvifolia	spearleaf	None/None/2B.3	None/List B	Mojavean Desert scrub, Sonoran Desert scrub; rocky/perennial herb/Mar– May(July)/ 1,440–3,595	Low potential to occur. Spearleaf occurs in Anza Borrego Desert State Park (SDNHM 2012).
Mentzelia hirsutissima	hairy stickleaf	None/None/2B.3	None/List B	Sonoran Desert scrub (rocky)/annual herb/Mar– May/0–2,295	Not expected to occur. The site is outside of the species' known elevation range.
Microseris douglasii ssp. platycarpha	small-flowered microseris	None/None/4.2	None/List D	Cismontane woodland, coastal scrub, valley and foothill grassland, vernal pools; clay/annual herb/Mar– May/45–3,510	Not expected to occur. Small-flowered microseris occurs west of Alpine, California (SDNHM 2012). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Mimulus latidens	vernal pool monkeyflower	None/None/None	None/List A	Vernal pools/annual herb/Apr-June/900-2,953	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vernal pool habitat present.
Mirabilis tenuiloba	slender-lobed four o'clock	None/None/4.3	None/List D	Sonoran Desert scrub/perennial herb/(Feb)Mar-May/750- 3,595	Low potential to occur. Slender-lobed four o'clock occurs in the high desert and desert region (SDNHM 2012).
Monardella hypoleuca ssp. lanata	felt-leaved monardella	None/None/1B.2	Covered/List A	Chaparral, cismontane woodland/perennial rhizomatous herb/June– Aug/980–5,165	Not expected to occur. Felt-leaved monardella occurs west of Pine Valley, California (SDNHM 2012). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Monardella macrantha ssp. hallii	Hall's monardella	None/None/1B.3	None/List A	Broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland/perennial rhizomatous herb/June– Oct/2,395–7,200	Not expected to occur. Hall's monardella occurs on Palomar Mountain (SDNHM 2012).



Scientific Name	Common Name	Status (Federal/State/ CRPR)	East County MSCP/ County of San Diego	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Potential to Occur
Monardella nana ssp. leptosiphon	San Felipe monardella	None/None/1B.2	Covered/None	Chaparral, lower montane coniferous forest/perennial rhizomatous herb/June–July/3,935–6,085	Low potential to occur. San Felipe monardella is known from north of Julian in San Diego County (SDNHM 2012).
Monardella stoneana	Jennifer's monardella	None/None/1B.2	None/List A	Closed-cone coniferous forest, chaparral, coastal scrub, riparian scrub; usually rocky intermittent streambeds/perennial herb/June–Sep/30–2,590	Not expected to occur. Jennifer's monardella occurs west of Barrett Junction (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Monardella viminea	willowy monardella	FE/SE/1B.1	None/List A	Chaparral, coastal scrub, riparian forest, riparian scrub, riparian woodland; alluvial ephemeral washes/perennial herb/June–Aug/160–740	Not expected to occur. Willowy monardella occurs west of U.S. Route 67 (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Mucronea californica	California spineflower	None/None/4.2	None/List D	Chaparral, cismontane woodland, coastal dunes, coastal scrub, valley and foothill grassland; sandy/annual herb/Mar– July(Aug)/0–4,595	Not expected to occur. California spineflower occurs west of I-5 on the coast (SDNHM 2012). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Myosurus minimus ssp. apus	little mousetail	None/None/3.1	None/List C	Valley and foothill grassland, vernal pools (alkaline)/annual herb/Mar– June/65–2,100	Not expected to occur. Little mousetail occurs in the Otay area (SDNHM 2012). Found in deeper portions of vernal pools (Resier 2001). Vernal pools were not present on site. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Nama stenocarpa	mud nama	None/None/2B.2	None/List B	Marshes and swamps (lake margins, riverbanks)/annual/ perennial herb/Jan-July/15- 1,640	Not expected to occur. Mud nama has been documented near Lake Henshaw (SDNHM 2012). Found on muddy embankments of lakes (Reiser 2001). The site is outside of the species' known elevation



Scientific Name	Common Name	Status (Federal/State/ CRPR)	East County MSCP/ County of San Diego	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Potential to Occur range and there is no suitable lake margin habitat present. Does not occur in vicinity (CDFW 2018; CNPS
Nasturtium gambelii	Gambel's water cress	FE/ST/1B.1	None/List A	Marshes and swamps (freshwater or brackish)/perennial rhizomatous herb/Apr– Oct/15–1,085	2018). Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Navarretia fossalis	spreading navarretia	FT/None/1B.1	None/List A	Chenopod scrub, marshes and swamps (assorted shallow freshwater), playas, vernal pools/annual herb/Apr–June/95–2,150	Not expected to occur. Spreading navarretia occurs west of Ramona, California (SDNHM 2012). It is found in vernal pools and vernal swales (Reiser 2001). No vernal pools were present on site. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Navarretia peninsularis	Baja navarretia	None/None/1B.2	Covered/List A	Chaparral (openings), lower montane coniferous forest, meadows and seeps, pinyon and juniper woodland; mesic/annual herb/(May)June–Aug/4,920– 7,545	Not expected to occur. Baja navarretia occurs in Cuyamaca Rancho State Park (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Navarretia prostrata	prostrate vernal pool navarretia	None/None/1B.1	None/List A	Coastal scrub, meadows and seeps, valley and foothill grassland (alkaline), vernal pools; mesic/annual herb/Apr-July/5-3,970	Not expected to occur. Prostrate vernal pool navarretia occurs west of I-15 (SDNHM 2012). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Nemacaulis denudata var. denudata	coast woolly- heads	None/None/1B.2	None/List A	Coastal dunes/annual herb/Apr-Sep/0-330	Not expected to occur. Coast woolly-heads occur west of I-15 (SDNHM). The site is outside of the species' known elevation range and there is no suitable coastal dunes present. Also does not occur in vicinity (CDFW 2018; CNPS 2018).



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Nemacaulis denudata var. gracilis	slender cottonheads	None/None/2B.2	None/List B	Coastal dunes, desert dunes, Sonoran Desert scrub/annual herb/(Mar)Apr– May/-160–1,310	Not expected to occur. Slender cottonheads prefer well-developed dune soils (Reiser 2001). Slender cottonheads occur west of I-15 (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Nolina cismontana	chaparral nolina	None/None/1B.2	Covered/List A	Chaparral, coastal scrub; sandstone or gabbro/ perennial evergreen shrub/(Mar)May-July/455- 4,185	Not expected to occur. Chaparral nolina occurs near Alpine, California, Palomar Mountain, and Cleveland National Forest within the central range of San Diego County (SDNHM 2012). Does not occur in vicinity (CDFW 2018; CNPS 2018).
Nolina interrata	Dehesa nolina	None/SE/1B.1	None/List A	Chaparral (gabbroic, metavolcanic, or serpentinite)/perennial herb/June–July/605–2,805	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Ophioglossum californicum	California adder's-tongue	None/None/4.2	None/List D	Chaparral, valley and foothill grassland, vernal pools (margins); mesic/perennial rhizomatous herb/(Dec)Jan– June/195–1,720	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Opuntia wigginsii	Wiggins' cholla	None/None/3.3	None/List C	Sonoran Desert scrub (sandy)/perennial stem succulent/Mar/95–2,905	Not expected to occur. The site is outside of the species' known elevation range.
Orcuttia californica	California Orcutt grass	FE/SE/1B.1	None/List A	Vernal pools/annual herb/Apr–Aug/45–2,165	Not expected to occur. California Orcutt grass occurs within vernal pools (Reiser 2001). No vernal pools were present on site. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Ornithostaphylos oppositifolia	Baja California birdbush	None/SE/2B.1	None/List B	Chaparral/perennial evergreen shrub/Jan– Apr/180–2,625	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).



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Orobanche parishii ssp. brachyloba	short-lobed broomrape	None/None/4.2	None/List D	Coastal bluff scrub, coastal dunes, coastal scrub; sandy/perennial herb (parasitic)/Apr-Oct/5-1,000	Not expected to occur. Short-lobed broomrape occurs west of I-5 (SDNHM 2012). The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).	
Packera ganderi	Gander's ragwort	None/SR/1B.2	Covered/List A	Chaparral (burns, gabbroic outcrops)/perennial herb/Apr-June/1,310-3,935	Not expected to occur. Gander's ragwort occurs west of Pine Valley (SDNHM 2012). Does not occur in vicinity (CDFW 2018; CNPS 2018).	
Pectocarya peninsularis	Baja California bur-comb	None/None/None	None/List D	Sonoran Desert scrub; washes, roadsides, clearings, sandy, silty, or gravelly soil/annual herb/Feb-Apr/300-984	Not expected to occur. Baja California bur-comb occur in the desert region (SDNHM 2012). The site is outsic of the species' known elevation range.	
Penstemon clevelandii var. connatus	San Jacinto beardtongue	None/None/4.3	None/List D	Chaparral, pinyon and juniper woodland, Sonoran Desert scrub; rocky/perennial herb/Mar–May/1,310–4,920	Not expected to occur. Does not occur in vicinity (CDFW 2018; CNPS 2018).	
Penstemon thurberi	Thurber's beardtongue	None/None/4.2	None/List D	Chaparral, Joshua tree woodland, pinyon and juniper woodland, Sonoran Desert scrub/perennial herb/May–July/1,640–4,005	Not expected to occur. Thurber's beardtongue occurs just west of Anza Borrego Desert State Park (SDNHM 2012). Does not occur in vicinity (CDFW 2018; CNPS 2018).	
Pentachaeta aurea ssp. aurea	golden-rayed pentachaeta	None/None/4.2	None/List D	Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, riparian woodland, valley and foothill grassland/ annual herb/Mar–July/260–6,070	Not expected to occur. Golden-rayed pentachaeta occurs west of Mount Laguna, California (SDNHM 2012). Does not occur in vicinity (CDFW 2018; CNPS 2018).	
Perideridia gairdneri ssp. gairdneri	Gairdner's yampah	None/None/4.2	None/List D	Broadleafed upland forest, chaparral, coastal prairie, valley and foothill grassland,	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).	



Scientific Name	Common Name	Status (Federal/State/ CRPR)	East County MSCP/ County of San Diego	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Potential to Occur	
				vernal pools; vernally mesic/perennial herb/June– Oct/0–2,000		
Phacelia stellaris	Brand's star phacelia	None/None/1B.1	None/List A	Coastal dunes, coastal scrub/annual herb/Mar– June/0–1,310	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).	
Pholistoma auritum var. arizonicum	Arizona pholistoma	None/None/2B.3	Covered/None	Mojavean Desert scrub /annual herb/Mar/900-2,740	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.	
Pickeringia montana var. tomentosa	woolly chaparral- pea	None/None/4.3	None/None	Chaparral; Gabbroic, granitic, clay/evergreen shrub/May-Aug/0-5575	Low potential to occur. Records are all west of Potrero or north of Moreno Village (SDNHM 2012).	
Pilostyles thurberi	Thurber's pilostyles	None/None/4.3	None/List D	Sonoran Desert scrub/perennial herb (parasitic)/Dec-Apr/0-1,200	Not expected to occur. The site is outside of the species' known elevation range.	
Pinus torreyana ssp. torreyana	Torrey pine	None/None/1B.2	None/List A	Closed-cone coniferous forest, chaparral; sandstone/perennial evergreen tree/N.A./95–525	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).	
Piperia cooperi	chaparral rein orchid	None/None/4.2	Covered/List D	Chaparral, cismontane woodland, valley and foothill grassland/ perennial herb/Mar– June/45–5,200	Not expected to occur. Does not occur in vicinity (CDFW 2018; CNPS 2018).	
Piperia leptopetala	narrow-petaled rein orchid	None/None/4.3	Covered/List D	Cismontane woodland, lower montane coniferous forest, upper montane coniferous forest/ perennial herb/May– July/1,245–7,300	Not expected to occur. Does not occur in vicinity (CDFW 2018; CNPS 2018).	
Plagiobryoides vinosula	wine-colored tufa moss	None/None/4.2	None/None	Cismontane woodland, Mojavean desert scrub,	Low potential to occur. This species is restricted to calcareous springs (NatureServe 2018).	



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				Meadows and seeps, Pinyon and juniper woodland, Riparian woodland; usually granitic rock or granitic soil along seeps and streams, sometimes clay/moss/ N.A./95–5690	
Poa atropurpurea	San Bernardino blue grass	FE/None/1B.2	Covered/List A	Meadows and seeps (mesic)/perennial rhizomatous herb/(Apr)May– July(Aug)/4,460–8,055	Not expected to occur. The site is outside of the species' known elevation range. This species is known from north of Boulder Oaks (CCH 2019).
Pogogyne abramsii	San Diego mesa mint	FE/SE/1B.1	None/List A	Vernal pools/annual herb/Mar-July/295-655	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vernal pool habitat present. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Pogogyne nudiuscula	Otay Mesa mint	FE/SE/1B.1	None/List A	Vernal pools/annual herb/May-July/295-820	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Polygala cornuta var. fishiae	Fish's milkwort	None/None/4.3	None/List D	Chaparral, cismontane woodland, riparian woodland/perennial deciduous shrub/ May–Aug/ 325–3,280	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Proboscidea althaeifolia	desert unicorn- plant	None/None/4.3	None/List D	Sonoran Desert scrub; gently sloping sandy flats and washes, sometimes roadsides/perennial herb/ May-Sep(Oct)/275-3,280	Not expected to occur. Desert unicorn plant occurs northeast of Mount Laguna, California, in the desert region (SDNHM 2012).
Quercus cedrosensis	Cedros Island oak	None/None/2B.2	None/List B	Closed-cone coniferous forest, chaparral, coastal scrub/perennial evergreen tree/Apr-May/835-3,150	Not expected to occur. Does not occur in vicinity (CDFW 2018; CNPS 2018).



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Quercus dumosa	Nuttall's scrub oak	None/None/1B.1	None/List A	Closed-cone coniferous forest, chaparral, coastal scrub; sandy, clay loam/ perennial evergreen shrub/ Feb—Apr(May–Aug)/45–1,310	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Quercus engelmannii	Engelmann oak	None/None/4.2	Covered/List D	Chaparral, cismontane woodland, riparian woodland, valley and foothill grassland/perennial deciduous tree/Mar– June/160–4,265	Not expected to occur. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Rhus aromatica var. simplicifolia	single-leaved skunkbrush	None/None/2B.3	None/List B	Pinyon and juniper woodland; usually granitic/perennial deciduous shrub/Mar-Apr/4,000-4,495	Not expected to occur. No suitable vegetation present. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Ribes canthariforme	Moreno currant	None/None/1B.3	Covered/List A	Chaparral, riparian scrub/perennial deciduous shrub/Feb-Apr/1,115-3,935	Not expected to occur. Moreno currant occurs west of Pine Valley, California (SDNHM 2012).
Ribes viburnifolium	Santa Catalina Island currant	None/None/1B.2	None/List A	Chaparral, cismontane woodland/perennial evergreen shrub/Feb– Apr/95–1,150	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Romneya coulteri	Coulter's matilija poppy	None/None/4.2	None/List D	Chaparral, coastal scrub; often in burns/perennial rhizomatous herb/Mar– July(Aug)/65–3,935	Not expected to occur. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Rosa minutifolia	small-leaved rose	None/SE/2B.1	None/List B	Chaparral, coastal scrub/perennial deciduous shrub/Jan-June/490-525	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).



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Rubus glaucifolius var. ganderi	Cuyamaca raspberry	None/None/3.1	Covered/List A	Lower montane coniferous forest (gabbroic)/perennial evergreen shrub/May– June/3,935–5,495	Not expected to occur. No suitable vegetation present. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Rupertia rigida	Parish's rupertia	None/None/4.3	Covered/List D	Chaparral, cismontane woodland, lower montane coniferous forest, meadows and seeps, pebble (pavement) plain, valley and foothill grassland/perennial herb/June–Aug/2,295–8,200	Low potential to occur. Parish's rupertia occurs north of Pine Valley, California (SDNHM 2012).
Saltugilia caruifolia	caraway-leaved woodland-gilia	None/None/4.3	None/List D	Chaparral, lower montane coniferous forest; sandy, openings/annual herb/May– Aug/2,755–7,545	Not expected to occur. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Salvia eremostachya	desert sage	None/None/4.3	None/List D	Sonoran Desert scrub (rocky or gravelly)/ perennial evergreen shrub/Mar-May/2,295-4,595	Not expected to occur. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Salvia munzii	Munz's sage	None/None/2B.2	None/List B	Chaparral, coastal scrub/perennial evergreen shrub/Feb-Apr/375-3,495	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Scutellaria bolanderi ssp. austromontana	southern mountains skullcap	None/None/1B.2	None/List A	Chaparral, cismontane woodland, lower montane coniferous forest; mesic/perennial rhizomatous herb/June–Aug/1,390–6,560	Low potential to occur. Southern mountains skullcap occurs north of Boulder Oaks and collections are most concentrated in the Palomar Mountain area (SDNHM 2012).
Selaginella asprella	bluish spike- moss	None/None/4.3	None/List D	Cismontane woodland, lower montane coniferous forest, pinyon and juniper woodland, subalpine	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).



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				coniferous forest, upper montane coniferous forest; granitic, rocky/perennial rhizomatous herb/July/5,245–8,860	
Selaginella cinerascens	ashy spike-moss	None/None/4.1	None/List D	Chaparral, coastal scrub/perennial rhizomatous herb/N.A./65–2,100	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Selaginella eremophila	desert spike- moss	None/None/2B.2	None/List B	Chaparral, Sonoran Desert scrub (gravelly or rocky)/perennial rhizomatous herb/(May)June(July)/655–4,250	Low potential to occur. Desert spike-moss occurs in the high desert region and desert region east of the site (SDNHM 2012).
Senecio aphanactis	chaparral ragwort	None/None/2B.2	None/List B	Chaparral, cismontane woodland, coastal scrub; sometimes alkaline/annual herb/Jan–Apr(May)/45– 2,625	Not expected to occur. Chaparral ragwort occurs west of Alpine, California (SDNHM 2012). The site is outside of the species' known elevation range.
Senna covesii	Coves' cassia	None/None/2B.2	None/List B	Sonoran Desert scrub; dry, sandy desert washes and slopes/perennial herb/Mar– June(Aug)/ 735–4,250	Not expected to occur. No suitable desert wash and slope habitat. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Sibaropsis hammittii	Hammitt's clay- cress	None/None/1B.2	Covered/List A	Chaparral (openings), valley and foothill grassland; clay/annual herb/Mar– Apr/2,360–3,495	Not expected to occur. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Spermolepis echinata	bristly scaleseed	None/None/None	None/List B	Sonoran Desert scrub (sandy or rocky)/annual herb/Mar–Apr/1,500–4,921	Not expected to occur. Does not occur in vicinity (CDFW 2018; CNPS 2018).



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Stemodia durantifolia	purple stemodia	None/None/2B.1	None/List B	Sonoran Desert scrub (often mesic, sandy)/perennial herb/(Jan)Apr, June, Aug, Sep, Oct, Dec/590–985	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).	
Stipa diegoensis	San Diego County needle grass	None/None/4.2 None/List D	None/List D	Chaparral, coastal scrub; rocky, often mesic/perennial herb/Feb–June/30–2,625	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).	
Streptanthus bernardinus	Laguna Mountains jewelflower	None/None/4.3	None/List D	Chaparral, lower montane coniferous forest/perennial herb/May–Aug/2,195–8,200	Low potential to occur. Laguna Mountains jewelflower occurs north of Mount Laguna, California (SDNHM 2012).	
Stylocline citroleum	oil neststraw	None/None/1B.1	None/List A	Chenopod scrub, coastal scrub, valley and foothill grassland; clay/annual herb/Mar–Apr/160–1,310	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).	
Suaeda esteroa	estuary seablite	None/None/1B.2	None/List A	Marshes and swamps (coastal salt)/perennial herb/(May)July-Oct(Jan)/0- 15	Not expected to occur. Esturary seablite occurs west of Rancho San Diego, California, and is generally close to the coastline (SDNHM 2012). The site is outside of the species' known elevation range and there is no suitable coastal salt marsh habitat present. Does not occur in vicinity (CDFW 2018; CNPS 2018).	
Suaeda taxifolia	woolly seablite	None/None/4.2	None/List D	Coastal bluff scrub, coastal dunes, marshes and swamps (margins of coastal salt)/ perennial evergreen shrub/Jan-Dec/0-165	Not expected to occur. Woolly seablite occurs on the coastline and is generally found west of I-5 (SDNHM 2012). The site is outside of the species' known elevation range and there is no suitable vegetation present. Does not occur in vicinity (CDFW 2018; CNPS 2018).	
Symphyotrichum defoliatum	San Bernardino aster	None/None/1B.2	None/None	Cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, valley	Low potential to occur. Limited suitable mesic habitat on site. San Bernardino aster generally occurs north and east of the project site. The nearest occurrences of this species are from Morena Village and north of Tierra Del Sol (CCH 2019).	



Scientific Name	Common Name	Status (Federal/State/ CRPR)	East County MSCP/ County of San Diego	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Potential to Occur
				and foothill grassland (vernally mesic); near ditches, streams, springs/perennial rhizomatous herb/July– Nov/5–6,695	
Tetracoccus dioicus	Parry's tetracoccus	None/None/1B.2	None/List A	Chaparral, coastal scrub/perennial deciduous shrub/Apr-May/540-3,280	Low potential to occur. The species occurs north of Jamul (SDNHM 2012).
Thermopsis californica var. semota	velvety false lupine	None/None/1B.2	Covered/List A	Cismontane woodland, lower montane coniferous forest, meadows and seeps, valley and foothill grassland/perennial rhizomatous herb/Mar–June/3,280–6,135	Low potential to occur. Velvety false lupine occurs generally north of Pine Valley (SDNHM 2012).
Thysanocarpus rigidus	rigid fringepod	None/None/1B.2	None/None	Pinyon and juniper woodland; dry rocky slopes/annual herb/Feb– May/1,965–7,220	Not expected to occur. No suitable pinyon and juniper woodland vegetation present.
Viguiera laciniata	San Diego County viguiera	None/None/4.3	None/List D	Chaparral, coastal scrub/perennial shrub/Feb– June(Aug)/195–2,460	Not expected to occur. The site is outside of the species' known elevation range.
Viguiera purisimae	La Purisima viguiera	None/None/2B.3	None/List A	Coastal bluff scrub, chaparral/shrub/Apr– Sep/1,195–1,395	Not expected to occur. The site is outside of the species' known elevation range. Does not occur in vicinity (CDFW 2018; CNPS 2018).
Viola purpurea ssp. aurea	golden violet	None/None/2B.2	None/List B	Great Basin scrub, pinyon and juniper woodland; sandy/perennial herb/Apr– June/3,280–8,200	Not expected to occur. Does not occur in vicinity (CDFW 2018; CNPS 2018).



Scientific Name	Common Name	Status (Federal/State/ CRPR)	East County MSCP/ County of San Diego	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Potential to Occur
Xanthisma junceum	rush-like bristleweed	None/None/4.3	Covered/List D	Chaparral, coastal scrub/perennial herb/May– Jan/785–3,280	Low potential to occur. Campo is just east of the species' general range (SDNHM 2012).
Xylorhiza orcuttii	Orcutt's woody- aster	None/None/1B.2	Covered/List A	Sonoran Desert scrub/perennial herb/Mar– Apr/0–1,200	Not expected to occur. Orcutt's woody-aster occurs in Anza Borrego Desert State Park and in the desert all the way to the Salton Sea (SDNHM 2012). The site is outside of the species' known elevation range.

Status Legend

Federal

FC: Federal candidate for listing
FE: Federally listed as endangered
FT: Federally listed as threatened

State

SE: State-listed as endangered

SR: State rare

ST: State-listed as threatened CRPR: California Rare Plant Rank

1B: Plants rare, threatened, or endangered in California and elsewhere2A: Plants presumed extirpated in California but common elsewhere

2B: Plants rare, threatened, or endangered in California, but more common elsewhere

3: Plants about which more information is needed—A Review List

4: Plants of limited distribution—A Watch List

Threat Rank

- .1: Seriously threatened in California (more than 80% of occurrences threatened/high degree and immediacy of threat)
- .2: Fairly threatened in California (20%–80% occurrences threatened/moderate degree and immediacy of threat)
- .3: Not very threatened in California (<20% of occurrences threatened/low degree and immediacy of threat or no current threats known)

County of San Diego Multiple Species Conservation Program (MSCP), East County Plan

Covered: Covered under the plan

None: Not covered

County of San Diego MSCP Listed Species

List A: Plants rare, threatened, or endangered in California or elsewhere

List B: Plants rare, threatened, or endangered in California but more common elsewhere

List C: Plants that may be quite rare, but more information is needed to determine rarity

Status

List D: Plants of limited distribution and are uncommon, but not presently rare or

endangered

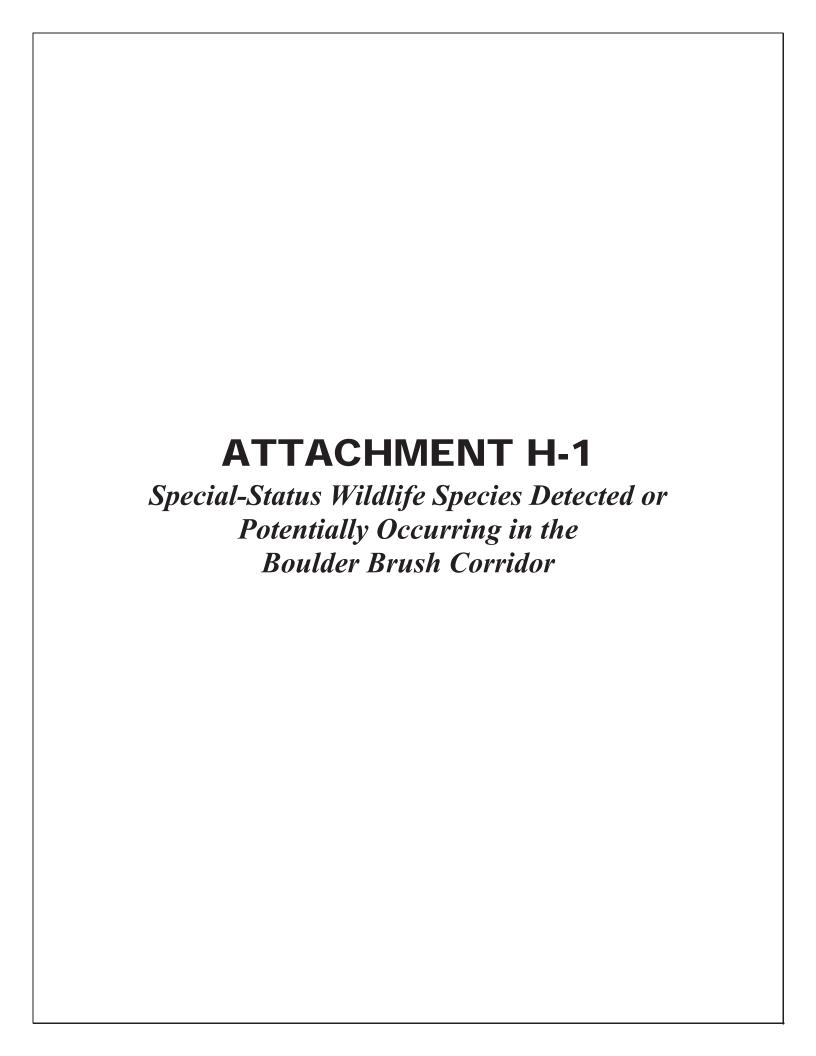
None = not listed N.A. = not applicable



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APPENDIX H-1 Special-Status Wildlife Species Detected or Potentially Occurring in the Boulder Brush Corridor

Scientific Name	Common Name	Status (Federal/State/San Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
				Amphibians	
Spea hammondii	western spadefoot	None/SSC/Covered	Group 2	Primarily grassland and vernal pools, but also in ephemeral wetlands that persist at least 3 weeks in chaparral, coastal scrub, valley–foothill woodlands, pastures, and other agriculture	Moderate potential to occur onsite; in general there is a lack of persistent water sources but there could be isolated ponding in drainages, Tule Creek, and road ruts during and after rain events. This species was recorded south of the project site in the Campo Indian Reservation (AECOM 2012).
				Birds	
Accipiter cooperii (nesting)	Cooper's hawk	None/WL/None	Group 1	Nests and forages in dense stands of live oak, riparian woodlands, or other woodland habitats often near water	Observed. This species was observed nesting on site.
Aimophila ruficeps canescens	Southern California rufous- crowned sparrow	None/WL/Covered	Group 1	Nests and forages in open coastal scrub and chaparral with low cover of scattered scrub interspersed with rocky and grassy patches	Moderate potential to occur on site. This species has potential to occur on site in the coastal scrub and chaparral habitats. It was not documented during extensive wildlife surveys; however, it has been recorded in the vicinity (Unitt 2004).
Aquila chrysaetos (nesting and wintering)	golden eagle	BCC/FP, WL/Covered	Group 1	Nests and winters in hilly, open/semi- open areas, including shrublands, grasslands, pastures, riparian areas, mountainous canyon land, open desert rimrock terrain; nests in large trees and on cliffs in open areas and forages in open habitats	A golden eagle was observed flying over the project site during wildlife surveys in 2018. There are no suitable large trees and cliffs present for nesting; therefore, this species is not expected to nest on site. Eagle surveys have been conducted on site in 2017 and 2018 and no golden eagles were observed, indicating that this species does not occur in the project site frequently. Data received from USFWS shows the closest nest approximately 5.5 miles east of the Project site in the Carrizo Gorge area of the Jacumba Mountains; it was noted as active in February 2012 (Dietsch 2018).



Scientific Name	Common Name	Status (Federal/State/San Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
Artemisiospiza belli belli	Bell's sage sparrow	BCC/WL/Covered	Group 1	Nests and forages in coastal scrub and dry chaparral; typically in large, unfragmented patches dominated by chamise; nests in more dense patches but uses more open habitat in winter	Observed. This species nests in coastal scrub and chaparral and is known to occur in the vicinity (Unitt 2004; AECOM 2012).
Asio otus (nesting)	long-eared owl	None/SSC/Covered	Group 1	Nests in riparian habitat, live oak thickets, other dense stands of trees, edges of coniferous forest; forages in nearby open habitats	Moderate potential to occur. This species is not widespread in San Diego County, but it was documented in the vicinity of the project site (AECOM 2012). There is potential for this species to winter in the oak woodland habitat on site.
Buteo lineatus	red-shouldered hawk	None/None/None	Group 1	Nests in dense riparian areas, especially with adjacent edges, swamps, marshes, and wet meadows for hunting	Observed. There is suitable nesting and foraging habitat on site.
Cathartes aura	turkey vulture	None/None/Covered	Group 1	Rangeland, agriculture, grassland; uses cliffs and large trees for roosting, nesting, and resting throughout most of California during breeding season	Observed foraging throughout the site.
Circus hudsonius (nesting)	northern harrier	None/SSC/Covered	Group 1	Nests in open wetlands (marshy meadows, wet lightly-grazed pastures, old fields, freshwater and brackish marshes); also in drier habitats (grassland and grain fields); forages in grassland, scrubs, rangelands, emergent wetlands, and other open habitats	Observed adjacent to the site. While there is some potential nesting habitat in the meadow habitat along Tule Creek, this species has not been documented nesting in the region (Unitt 2004).
Eremophila alpestris actia	California horned lark	None/WL/Covered	Group 2	Nests and forages in grasslands, disturbed lands, agriculture, and beaches; nests in alpine fell fields of the Sierra Nevada	Observed. There is suitable nesting and foraging habitat on site.



Scientific Name	Common Name	Status (Federal/State/San Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
Falco columbarius (wintering)	merlin	None/WL/None	Group 2	Forages in semi-open areas, including coastline, grassland, agriculture, savanna, woodland, lakes, and wetlands	One merlin was observed flying over the site in October 2018. This winter visitor to San Diego County is not well-documented in southeast San Diego. Because only one merlin has been observed during the winter months (October – December), it likely is not regularly using the site for wintering. However, it could use the site occasionally for foraging.
Lanius ludovicianus (nesting)	loggerhead shrike	BCC/SSC/Covered	Group 1	Nests and forages in open habitats with scattered shrubs, trees, or other perches	Observed adjacent to the site. There is suitable nesting and foraging habitat on site.
Oreoryx pictus	mountain quail	None/None/None	Group 2	Dense montane chaparral and brushy areas within coniferous forest, pinyon–juniper–yucca associations; uses shrubs, brush stands, and trees on steep slopes for cover	Moderate potential to occur. This species nests in chaparral and is known to occur in the vicinity (Unitt 2004; AECOM 2012).
Setophaga petechia (nesting)	yellow warbler	BCC/SSC/Covered	Group 2	Nests and forages in riparian and oak woodlands, montane chaparral, open ponderosa pine, and mixed-conifer habitats	Observed. There is marginal riparian habitat on site. It was observed on the Campo Indian Reservation (AECOM 2012) and is known to nest in the vicinity (Unitt 2004).
Sialia mexicana	western bluebird	None/None/None	Group 2	Nests in old-growth red fir, mixed- conifer, and lodegpole pine habitats near wet meadows used for foraging	Observed. There is nesting and foraging habitat on site.
Tyto alba	barn owl	None/None/None	Group 2	Open habitats including grassland, chaparral, riparian, and other wetlands.	Observed. There is suitable nesting and foraging habitat on site.
Vireo vicinior (nesting)	gray vireo	BCC/SSC/Covered	Group 1	Nests and forages in pinyon-juniper woodland, oak, and chamise and redshank chaparral	Moderate potential to occur in the oak woodland and chaparral habitats on site. This species is known to occur south of the Laguna Mountains and north of I-8 (Unitt 2004).



Scientific Name	Common Name	Status (Federal/State/San Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
Apodemia virgulti peninsularis	Peninsular metalmark	None/None/None	Group 1	Found in mountain meadows usually near the edges of woods, Great Basin sagebrush, and montane buckwheat scrub. Host plant is <i>Eriogonum wrightii</i> ssp. <i>membranaceum</i> (Faulkner and Klein 2012).	Potentially observed. Behr's metalmark was observed frequently on site which is very similar in appearance to <i>A.v. peninsularis</i> . The host plant, <i>Eriogonum wrightii</i> ssp. <i>membranaceum</i> occurs on site and therefore, this species could have been observed during the surveys. No specimens were collected to confirm its presence on site. This species is found in the San Jacinto, Palomar, and Laguna Mountains (Faulkner and Klein 2012; Butterflies of North America 2018) where its host plant occurs.
Euphydryas editha quino	Quino checkerspot butterfly	FE/None/Covered	Group 1	Annual forblands, grassland, open coastal scrub and chaparral; often soils with cryptogamic crusts and finetextured clay; host plants include Plantago erecta, Antirrhinum coulterianum, and Plantago patagonica (Silverado Occurrence Complex)	Moderate potential to occur. Focused surveys in 2011 and 2018 were negative. Quino have been documented in the vicinity in past years (USFWS 2018; CDFW 2018; AECOM 2012). Specifically, Quino were documented in the Manzanita Reservation, less than one mile west of the project site in 2010, and Quino were documented on the Campo Indian Reservation south of I-8 in 2005, 2009, and 2010 (USFWS 2018). Based on past observations of this species in the region, there is potential for this species to occur within suitable habitat on the project site.
				Mammals	
Antrozous pallidus	pallid bat	None/SSC/Covered	Group 2	Grasslands, shrublands, woodlands, forests; most common in open, dry habitats with rocky outcrops for roosting, but also roosts in man-made structures and trees	Moderate potential to roost on site. There is suitable shrubland, dry habitat, and rocky outcrops present and this species was detected during the 2011/2012 acoustical bat surveys on site as well as on the Campo Indian Reservation (AECOM 2012).



Scientific Name	Common Name	Status (Federal/State/San Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
Chaetodipus californicus femoralis	Dulzura pocket mouse	None/SSC/None	Group 2	Open habitat, coastal scrub, chaparral, oak woodland, chamise chaparral, mixed-conifer habitats; disturbance specialist; 0 to 3,000 feet above mean sea level	Moderate potential to occur. There is suitable scrub, chaparral, and open habitat present. The closest CNDDB occurrence overlaps the southern portion of the project area (CDFW 2018).
Corynorhinus townsendii	Townsend's big- eared bat	None/SSC/Covered	Group 2	Mesic habitats characterized by coniferous and deciduous forests and riparian habitat, but also xeric areas; roosts in limestone caves and lava tubes, man-made structures, and tunnels	Moderate potential to roost on site. There is some riparian forest present onsite. This species was detected during the 2011/2012 acoustical bat surveys on site as well as on the Campo Indian Reservation (AECOM 2012).
Eumops perotis californicus	western mastiff bat	None/SSC/None	Group 2	Chaparral, coastal and desert scrub, coniferous and deciduous forest and woodland; roosts in crevices in rocky canyons and cliffs where the canyon or cliff is vertical or nearly vertical, trees, and tunnels	Moderate potential to roost on site. There are some large trees and snags on site and this species was detected during the 2011/2012 acoustical bat surveys on site as well as on the Campo Indian Reservation (AECOM 2012).
Lepus californicus bennettii	San Diego black- tailed jackrabbit	None/SSC/Covered	Group 2	Arid habitats with open ground; grasslands, coastal scrub, agriculture, disturbed areas, and rangelands	Observed regularly during surveys.
Macrotus californicus	Californian leaf- nosed bat	None/SSC/None	Group 2	Riparian woodlands, desert wash, desert scrub; roosts in mines and caves, occasionally buildings	Moderate potential to roost on site. There are no mines, caves, or buildings present, but some riparian woodland habitat. Potential to forage on site; however, it was not detected during the 2011/2012 acoustical bat surveys on site or on the Campo Indian Reservation (AECOM 2012).
Myotis ciliolabrum	western small- footed myotis	None/None/None	Group 2	Arid woodlands and shrublands, but near water; roosts in caves, crevices, mines, abandoned buildings	High potential to roost on site. There are no caves, crevices, mines, or buildings present; however, there are oak and riparian woodlands on site. This species was detected during the 2011/2012 acoustical bat surveys on site.



Scientific Name	Common Name	Status (Federal/State/San Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
Myotis evotis	long-eared myotis	None/None/None	Group 2	Brush, woodland, and forest habitats from sea level to 9,000 feet above MSL; prefers coniferous habitats; forages along habitat edges, in open habitats, and over water; roosts in buildings, crevices, under bark, and snags; uses caves as night roosts	Moderate potential to roost on site in tree snags or bark; there are no buildings or crevices present. Potential to forage on site. It was not detected during the 2011/2012 acoustical bat surveys, but it was recorded on the Campo Indian Reservation (AECOM 2012).
Myotis thysanodes	fringed myotis	None/None/None	Group 2	Drier woodlands (oak, pinyon-juniper, and ponderosa pine), desert scrub, mesic coniferous forest, grassland, and sage-grass steppe; sea level to 9,350 ft; roosts in buildings, mines, rocks, cliff faces, bridges, and large, decadent trees and snags	Moderate potential to roost on site. There are some large trees and snags on site and this species was detected on the Campo Indian Reservation (AECOM 2012). Potential to forage on site; however, it was not detected during the 2011/2012 acoustical bat surveys on site.
Neotoma lepida intermedia ¹	San Diego desert woodrat	None/SSC/None	Group 2	Coastal scrub, desert scrub, chaparral, cacti, rocky areas	Observed. Woodrat middens were observed on site. There is suitable desert scrub, chaparral, and rocky areas present.
Nyctinomops femorosaccus	pocketed free- tailed bat	None/SSC/None	Group 2	Pinyon-juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oases; roosts in high cliffs or rock outcrops with drop-offs, caverns, and buildings	Moderate potential to roost on site in the larger rock outcrops. This species was detected during the 2011/2012 acoustical bat surveys as well as on the Campo Indian Reservation (AECOM 2012).
Nyctinomops macrotis	big free-tailed bat	None/SSC/None	Group 2	Rocky areas; roosts in caves, holes in trees, buildings, and crevices on cliffs and rocky outcrops; forages over water	Moderate potential to roost on site. There are some rocky outcrops on site and this species was detected during the 2011/2012 acoustical bat surveys on site at a very low number of minutes (0.6%) as well as on the Campo Indian Reservation (AECOM 2012).

The San Diego Mammal Atlas (Tremor et al. 2017) describes this species as *N. bryanti*, a distinct species from *N. lepida*, with *N. bryanti* occurring in Baja and SoCal west of Imperial and Coachella Valley. However, wildlife agencies still refer to this species as *N. l. intermedia* and therefore, this name is used for this report.



Scientific Name	Common Name	Status (Federal/State/San Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur		
Odocoileus hemionus	mule deer	None/None/None	Group 2	Coastal sage scrub, chaparral, riparian, woodlands, and forest; often browses in open area adjacent to cover throughout California, except deserts and intensely farmed areas	Observed. Both individual deer and their sign was observed throughout the project site.		
Onychomys torridus ramona	southern grasshopper mouse	None/SSC/Covered	Group 2	Grassland and sparse coastal scrub	Moderate potential to occur. There is suitable scrub vegetation present. The closest CNDDB occurrences overlap the project area in the northern and southern portions (CDFW 2018).		
Perognathus longimembris internationalis	Jacumba pocket mouse	None/SSC/Covered	Group 2	Desert scrub and sparse sage scrub in areas with fine sandy soils	Moderate potential to occur. This species is recorded in McCain Valley, just east of the project site. There is suitable habitat in the scrub habitat on site.		
Puma concolor	cougar	None/None/None	Group 2	Scrubs, chaparral, riparian, woodland, and forest; rests in rocky areas and on cliffs and ledges that provide cover; most abundant in riparian areas and brushy stages of most habitats throughout California, except deserts	High potential to occur. This species was detected on Campo Indian Reservation (AECOM 2012). There is suitable habitat throughout the project site.		
Taxidea taxus	American badger	None/SSC/Covered	Group 2	Dry, open, treeless areas; grasslands, coastal scrub, agriculture, and pastures, especially with friable soils	Moderate to high potential to occur. There is suitable open scrub vegetation and friable soils present.		
	Reptiles						
Anniella stebbinsi	southern California legless lizard	None/SSC/None	Group 2	Coastal dunes, stabilized dunes, beaches, dry washes, valley–foothill, chaparral, and scrubs; pine, oak, and riparian woodlands; associated with sparse vegetation and moist sandy or loose, loamy soils	Moderate potential to occur. There are no records of this species in the vicinity (CDFW 2018); however, this cryptic species could occur in some habitat along Tule Creek.		



Scientific Name	Common Name	Status (Federal/State/San Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
Arizona elegans occidentalis	California glossy snake	None/SSC/None	None	Commonly occurs in desert regions throughout southern California. Prefers open sandy areas with scattered brush. Also found in rocky areas.	Moderate potential to occur. There is suitable sandy areas with scattered brush present. The closest known CNDDB occurrence is 1.3 miles east of the project area along McCain Valley Road (CDFW 2018).
Aspidoscelis tigris stejnegeri	San Diegan tiger whiptail	None/SSC/None	Group 2	Hot and dry areas with sparse foliage, including chaparral, woodland, and riparian areas.	Observed. Suitable habitat throughout the project site.
Coleonyx variegatus abbotti	San Diego banded gecko	None/SSC/None	Group 1	Rocky areas within coastal scrub and chaparral	High potential to occur in the scrub and chaparral habitats where rocky outcrops are present.
Coluber fuliginosus	Baja California coachwhip	None/SSC/None	None	In California restricted to southern San Diego County, where it is known from grassland and coastal sage scrub. Open areas in grassland and coastal sage scrub.	Moderate potential to occur. This species' range is southern San Diego County and into Baja California (Nafis 2018; Stebbins 2003).
Crotalus ruber	red diamondback rattlesnake	None/SSC/Covered	Group 2	Coastal scrub, chaparral, oak and pine woodlands, rocky grasslands, cultivated areas, and desert flats	Moderate potential to occur. There is suitable scrub and chaparral vegetation present.
Diadophis punctatus similis	San Diego ringneck snake	None/None/None	Group 2	Moist habitats including wet meadows, rocky hillsides, gardens, farmland grassland, chaparral, mixed-conifer forest, and woodland habitats	High potential to occur in moister chaparral and woodland habitats on site.
Gambelia copeii	Cope's leopard lizard	None/SSC/Covered	None	Coastal sage scrub, chaparral, oak woodland; prefers flat areas with open space and avoids densely vegetated areas	Moderate potential to occur. This species' range is southern San Diego County and into Baja California (Nafis 2018; Stebbins 2003).
Lichanura trivirgata	rosy boa	None/None/None	Group 2	Desert and chaparral habitats with rocky soils in coastal canyons and hillsides, desert canyons, washes, and mountains	High potential to occur in the chaparral and woodland habitats on site.



Scientific Name	Common Name	Status (Federal/State/San Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
Phrynosoma blainvillii	Blainville's horned lizard	None/SSC/None	Group 2	Open areas of sandy soil in valleys, foothills, and semi-arid mountains including coastal scrub, chaparral, valley–foothill hardwood, conifer, riparian, pine–cypress, juniper, and annual grassland habitats	Observed several times during surveys.
Plestiodon skiltonianus interparietalis	Coronado skink	None/WL/Covered	Group 2	Woodlands, grasslands, pine forests, and chaparral; rocky areas near water	High potential to occur on site. The project site is within this species' range (Nafis 2018) and there is suitable habitat on site.
Salvadora hexalepis virgultea	coast patch- nosed snake	None/SSC/Covered	Group 2	Brushy or shrubby vegetation; requires small mammal burrows for refuge and overwintering sites	High potential to occur on site. The project site is within this species' range (Nafis 2018) and there is suitable habitat on site.
Sceloporus graciosus vandenburgianu s	southern sagebrush lizard	None/None/None	Group 2	Montane chaparral, hardwood and conifer forest, juniper, coastal scrub	Moderate potential to occur on site. This species is found in montane habitats, but the project site is within this species' range (Nafis 2018) and there is suitable habitat on site in open chaparral and scrub habitats where rocky areas are present.

Federal

BCC = Bird of Conservation Concern

FE = Federally Endangered

State

FP = Fully Protected SSC = State Species of Concern

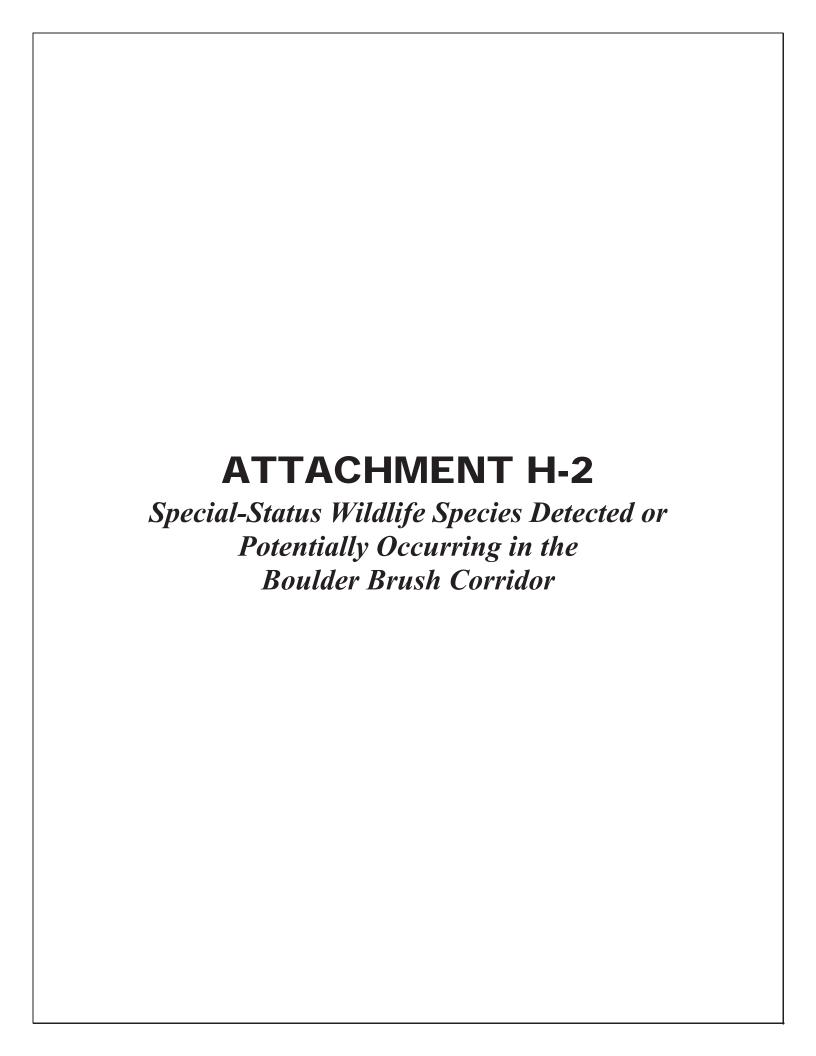
WL = Watch List



ATTACHMENT H-1 (Continued)

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APPENDIX H-2 Special-Status Wildlife Species Detected or Potentially Occurring in the Campo Corridor

Scientific Name	Common Name	Status (Federal/State/San Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur		
				Amphibians			
Spea hammondii	western spadefoot	None/SSC/Covered	Group 2	Primarily grassland and vernal pools, but also in ephemeral wetlands that persist at least 3 weeks in chaparral, coastal scrub, valley–foothill woodlands, pastures, and other agriculture	This species was recorded on site (AECOM 2012).		
	Birds						
Accipiter cooperii (nesting)	Cooper's hawk	None/WL/None	Group 1	Nests and forages in dense stands of live oak, riparian woodlands, or other woodland habitats often near water	Observed. This species was observed and likely nests on site.		
Agelaius tricolor (nesting colony)	tricolored blackbird	BCC/PSE, SSC/Covered	Group 1	Nests near freshwater, emergent wetland with cattails or tules, but also in Himalayan blackberrry; forages in grasslands, woodland, and agriculture	Moderate potential to nest on site. There is some suitable freshwater emergent wetland present and this species was recorded onsite (AECOM 2012). The closest CNDDB occurrence is 4.0 miles southeast of the project area east of Tule Lake.		
Aimophila ruficeps canescens	Southern California rufous- crowned sparrow	None/WL/Covered	Group 1	Nests and forages in open coastal scrub and chaparral with low cover of scattered scrub interspersed with rocky and grassy patches	Moderate potential to occur on site. This species has potential to occur on site in the coastal scrub and chaparral habitats. It was not documented during extensive wildlife surveys; however, it has been recorded in the vicinity (Unitt 2004).		



Scientific Name	Common Name	Status (Federal/State/San Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
Aquila chrysaetos (nesting and wintering)	golden eagle	BCC/FP, WL/Covered	Group 1	Nests and winters in hilly, open/semi- open areas, including shrublands, grasslands, pastures, riparian areas, mountainous canyon land, open desert rimrock terrain; nests in large trees and on cliffs in open areas and forages in open habitats	Eight golden eagles have been observed to date flying over the study area during the 2018 eagle point count surveys. As of December 2018, eagles were observed on site for approximately 20 of 20,000 minutes during the 2018 avian point-count surveys, indicating that this species does not occur in the project site frequently. There are no suitable large trees and cliffs present for nesting; therefore, this species is not expected to nest on site. Data received from USFWS shows the closest nest approximately 7 miles east of the Project site in the Carrizo Gorge area of the Jacumba Mountains; it was noted as active in February 2012 (Dietsch 2018).
Artemisiospiza belli belli	Bell's sage sparrow	BCC/WL/Covered	Group 1	Nests and forages in coastal scrub and dry chaparral; typically in large, unfragmented patches dominated by chamise; nests in more dense patches but uses more open habitat in winter	High potential to occur. This species nests in coastal scrub and chaparral and is known to occur in the vicinity (Unitt 2004; AECOM 2012).
Asio otus (nesting)	long-eared owl	None/SSC/Covered	Group 1	Nests in riparian habitat, live oak thickets, other dense stands of trees, edges of coniferous forest; forages in nearby open habitats	This species was documented nesting on site in 2011 (AECOM 2012). There is potential for this species to nest or winter in the oak woodland habitat on site.
Buteo lineatus	red-shouldered hawk	None/None/None	Group 1	Nests in dense riparian areas, especially with adjacent edges, swamps, marshes, and wet meadows for hunting	Observed. There is suitable nesting and foraging habitat on site.
Cathartes aura	turkey vulture	None/None/Covered	Group 1	Rangeland, agriculture, grassland; uses cliffs and large trees for roosting, nesting, and resting throughout most of California during breeding season	Observed foraging throughout the site.



Scientific Name	Common Name	Status (Federal/State/San Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
Circus hudsonius (nesting)	northern harrier	None/SSC/Covered	Group 1	Nests in open wetlands (marshy meadows, wet lightly-grazed pastures, old fields, freshwater and brackish marshes); also in drier habitats (grassland and grain fields); forages in grassland, scrubs, rangelands, emergent wetlands, and other open habitats	Observed on site. While there is some potential nesting habitat in the meadow habitats onsite, this species has not been documented nesting in the region (Unitt 2004).
Eremophila alpestris actia	California horned lark	None/WL/Covered	Group 2	Nests and forages in grasslands, disturbed lands, agriculture, and beaches; nests in alpine fell fields of the Sierra Nevada	Observed. There is suitable nesting and foraging habitat on site.
Falco columbarius (wintering)	merlin	None/WL/None	Group 2	Forages in semi-open areas, including coastline, grassland, agriculture, savanna, woodland, lakes, and wetlands	Merlin was observed on site. This winter visitor to San Diego County is not well-documented in southeast San Diego. It could use the site occasionally for foraging.
Falco mexicanus (nesting)	prairie falcon	BCC/WL/None	Group 1	Forages in grassland, savanna, rangeland, agriculture, desert scrub, alpine meadows; nest on cliffs or bluffs	High potential to nest on site in the grassland and emergent as well as forage on site in the grassland and open scrub habitats. This species has been observed on site (CDFW 2018; AECOM 2012).
Lanius ludovicianus (nesting)	loggerhead shrike	BCC/SSC/Covered	Group 1	Nests and forages in open habitats with scattered shrubs, trees, or other perches	Observed on site. There is suitable nesting and foraging habitat on site.
Oreoryx pictus	mountain quail	None/None/None	Group 2	Dense montane chaparral and brushy areas within coniferous forest, pinyon–juniper–yucca associations; uses shrubs, brush stands, and trees on steep slopes for cover	Moderate potential to occur. This species nests in chaparral and is known to occur in the vicinity (Unitt 2004; AECOM 2012).
Setophaga petechia (nesting)	yellow warbler	BCC/SSC/Covered	Group 2	Nests and forages in riparian and oak woodlands, montane chaparral, open ponderosa pine, and mixed-conifer habitats	Observed. There is some suitable riparian and oak woodland habitat on site.



Scientific Name	Common Name	Status (Federal/State/San Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
Sialia mexicana	western bluebird	None/None/None	Group 2	Nests in old-growth red fir, mixed- conifer, and lodegpole pine habitats near wet meadows used for foraging	Observed. There is nesting and foraging habitat on site.
Tyto alba	barn owl	None/None/None	Group 2	Open habitats including grassland, chaparral, riparian, and other wetlands.	Observed. There is suitable nesting and foraging habitat on site.
Vireo vicinior (nesting)	gray vireo	BCC/SSC/Covered	Group 1	Nests and forages in pinyon–juniper woodland, oak, and chamise and redshank chaparral	Moderate potential to occur in the oak woodland and chaparral habitats on site. This species is known to occur south of the Laguna Mountains and north of I-8 (Unitt 2004).
				Invertebrates	
Apodemia virgulti peninsularis	Peninsular metalmark	None/None/None	Group 1	Found in mountain meadows usually near the edges of woods, Great Basin sagebrush, and montane buckwheat scrub. Host plant is <i>Eriogonum wrightii</i> ssp. <i>membranaceum</i> (Faulkner and Klein 2012).	Potentially observed. Behr's metalmark was observed frequently on site which is very similar in appearance to <i>A.v. peninsularis</i> . The host plant, <i>Eriogonum wrightii</i> ssp. <i>membranaceum</i> occurs on site and therefore, this species could have been observed during the surveys. No specimens were collected to confirm its presence on site. This species is found in the San Jacinto, Palomar, and Laguna Mountains (Faulkner and Klein 2012; Butterflies of North America 2018) where its host plant occurs.
Euphydryas editha quino	Quino checkerspot butterfly	FE/None/Covered	Group 1	Annual forblands, grassland, open coastal scrub and chaparral; often soils with cryptogamic crusts and finetextured clay; host plants include Plantago erecta, Antirrhinum coulterianum, and Plantago patagonica (Silverado Occurrence Complex)	Twenty-seven Quino observations were documented during 2010 USFWS protocol surveys. Approximately 3,803.1 acres (1,539.1 hectares) of suitable habitat was recorded. Observations were concentrated in the southern portion of the 2010 BSA (AECOM 2012). In 2018, updated surveys were conducted for the study Area. No occurrences of Quino were recorded during the focused surveys.



Scientific Name	Common Name	Status (Federal/State/San Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
				Mammals	
Antrozous pallidus	pallid bat	None/SSC/Covered	Group 2	Grasslands, shrublands, woodlands, forests; most common in open, dry habitats with rocky outcrops for roosting, but also roosts in man-made structures and trees	Moderate potential to roost on site. There is suitable shrubland, dry habitat, and rocky outcrops present and this species was detected on site (AECOM 2012).
Chaetodipus californicus femoralis	Dulzura pocket mouse	None/SSC/None	Group 2	Open habitat, coastal scrub, chaparral, oak woodland, chamise chaparral, mixed-conifer habitats; disturbance specialist; 0 to 3,000 feet above mean sea level	Moderate potential to occur. There is suitable scrub, chaparral, and open habitat present. The closest CNDDB occurrence overlaps the southern portion of the project area (CDFW 2018).
Corynorhinus townsendii	Townsend's big- eared bat	None/SSC/Covered	Group 2	Mesic habitats characterized by coniferous and deciduous forests and riparian habitat, but also xeric areas; roosts in limestone caves and lava tubes, man-made structures, and tunnels	Moderate potential to roost on site. There is some riparian forest present onsite. This species was detected on site (AECOM 2012).
Eumops perotis californicus	western mastiff bat	None/SSC/None	Group 2	Chaparral, coastal and desert scrub, coniferous and deciduous forest and woodland; roosts in crevices in rocky canyons and cliffs where the canyon or cliff is vertical or nearly vertical, trees, and tunnels	Moderate potential to roost on site. There are some large trees and snags on site and this species was detected during onsite (AECOM 2012).
Lepus californicus bennettii	San Diego black- tailed jackrabbit	None/SSC/Covered	Group 2	Arid habitats with open ground; grasslands, coastal scrub, agriculture, disturbed areas, and rangelands	Observed regularly during surveys.
Macrotus californicus	Californian leaf- nosed bat	None/SSC/None	Group 2	Riparian woodlands, desert wash, desert scrub; roosts in mines and caves, occasionally buildings	Moderate potential to roost on site. There are no mines, caves, or buildings present, but some riparian woodland habitat. Potential to forage on site; however, it was not detected during the 2011/2012 acoustical bat surveys on site or on the Campo Indian Reservation (AECOM 2012).



Scientific Name	Common Name	Status (Federal/State/San Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
Myotis ciliolabrum	western small- footed myotis	None/None/None	Group 2	Arid woodlands and shrublands, but near water; roosts in caves, crevices, mines, abandoned buildings	High potential to roost on site. There are no caves, crevices, mines, or buildings present; however, there are oak and riparian woodlands on site. This species was detected during the 2011/2012 acoustical bat surveys on site.
Myotis evotis	long-eared myotis	None/None/None	Group 2	Brush, woodland, and forest habitats from sea level to 9,000 feet above MSL; prefers coniferous habitats; forages along habitat edges, in open habitats, and over water; roosts in buildings, crevices, under bark, and snags; uses caves as night roosts	Moderate potential to roost on site in tree snags or bark; there are no buildings or crevices present. It was detected on site (AECOM 2012).
Myotis thysanodes	fringed myotis	None/None/None	Group 2	Drier woodlands (oak, pinyon-juniper, and ponderosa pine), desert scrub, mesic coniferous forest, grassland, and sage-grass steppe; sea level to 9,350 ft; roosts in buildings, mines, rocks, cliff faces, bridges, and large, decadent trees and snags	Moderate potential to roost on site. There are some large trees and snags on site and this species was detected onsite (AECOM 2012).
Neotoma lepida intermedia ¹	San Diego desert woodrat	None/SSC/None	Group 2	Coastal scrub, desert scrub, chaparral, cacti, rocky areas	Likely occurs. Woodrat middens were observed on site. There is suitable desert scrub, chaparral, and rocky areas present.
Nyctinomops femorosaccus	pocketed free- tailed bat	None/SSC/None	Group 2	Pinyon–juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oases; roosts in high cliffs or rock outcrops with drop-offs, caverns, and buildings	Moderate potential to roost on site in the larger rock outcrops. This species was detected on site (AECOM 2012).

The San Diego Mammal Atlas (Tremor et al. 2017) describes this species as *N. bryanti*, a distinct species from *N. lepida*, with *N. bryanti* occurring in Baja and SoCal west of Imperial and Coachella Valley. However, wildlife agencies still refer to this species as *N. l. intermedia* and therefore, this name is used for this report.



Scientific Name	Common Name	Status (Federal/State/San Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
Nyctinomops macrotis	big free-tailed bat	None/SSC/None	Group 2	Rocky areas; roosts in caves, holes in trees, buildings, and crevices on cliffs and rocky outcrops; forages over water	Moderate potential to roost on site. There are some rocky outcrops on site and this species was detected onsite (AECOM 2012).
Odocoileus hemionus	mule deer	None/None/None	Group 2	Coastal sage scrub, chaparral, riparian, woodlands, and forest; often browses in open area adjacent to cover throughout California, except deserts and intensely farmed areas	Observed. Both individual deer and their sign was observed throughout the project site.
Onychomys torridus ramona	southern grasshopper mouse	None/SSC/Covered	Group 2	Grassland and sparse coastal scrub	Moderate potential to occur. There is suitable scrub vegetation present. The closest CNDDB occurrences overlap the project area in the northern and southern portions (CDFW 2018).
Perognathus longimembris internationalis	Jacumba pocket mouse	None/SSC/Covered	Group 2	Desert scrub and sparse sage scrub in areas with fine sandy soils	Moderate potential to occur. This species is recorded in McCain Valley, east of the project site. There is suitable habitat in the scrub habitat on site.
Puma concolor	cougar	None/None/None	Group 2	Scrubs, chaparral, riparian, woodland, and forest; rests in rocky areas and on cliffs and ledges that provide cover; most abundant in riparian areas and brushy stages of most habitats throughout California, except deserts	This species was detected onsite (AECOM 2012). There is suitable habitat throughout the project site.
Taxidea taxus	American badger	None/SSC/Covered	Group 2	Dry, open, treeless areas; grasslands, coastal scrub, agriculture, and pastures, especially with friable soils	Moderate to high potential to occur. There is suitable open scrub vegetation and friable soils present.
		<u> </u>		Reptiles	
Anniella stebbinsi	southern California legless lizard	None/SSC/None	Group 2	Coastal dunes, stabilized dunes, beaches, dry washes, valley–foothill, chaparral, and scrubs; pine, oak, and riparian woodlands; associated with sparse vegetation and moist sandy or loose, loamy soils	Moderate potential to occur. There are no records of this species in the vicinity (CDFW 2018); however, this cryptic species could occur in some habitat in the understory of the oak woodland and riparian habitat where leaf litter is present.



Scientific Name	Common Name	Status (Federal/State/San Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
Aspidoscelis tigris stejnegeri	San Diegan tiger whiptail	None/SSC/None	Group 2	Hot and dry areas with sparse foliage, including chaparral, woodland, and riparian areas.	Observed. Suitable habitat throughout the project site.
Coleonyx variegatus abbotti	San Diego banded gecko	None/SSC/None	Group 1	Rocky areas within coastal scrub and chaparral	High potential to occur in the scrub and chaparral habitats where rocky outcrops are present.
Crotalus ruber	red diamondback rattlesnake	None/SSC/Covered	Group 2	Coastal scrub, chaparral, oak and pine woodlands, rocky grasslands, cultivated areas, and desert flats	Moderate potential to occur. There is suitable scrub and chaparral vegetation present.
Diadophis punctatus similis	San Diego ringneck snake	None/None/None	Group 2	Moist habitats including wet meadows, rocky hillsides, gardens, farmland grassland, chaparral, mixed-conifer forest, and woodland habitats	High potential to occur in moister chaparral and woodland habitats on site.
Gambelia copeii	Cope's leopard lizard	None/SSC/Covered	None	Coastal sage scrub, chaparral, oak woodland; prefers flat areas with open space and avoids densely vegetated areas	Moderate potential to occur. This species' range is southern San Diego County and into Baja California (Nafis 2018; Stebbins 2003).
Lichanura trivirgata	rosy boa	None/None/None	Group 2	Desert and chaparral habitats with rocky soils in coastal canyons and hillsides, desert canyons, washes, and mountains	High potential to occur in the chaparral and woodland habitats on site.
Phrynosoma blainvillii	Blainville's horned lizard	None/SSC/None	Group 2	Open areas of sandy soil in valleys, foothills, and semi-arid mountains including coastal scrub, chaparral, valley–foothill hardwood, conifer, riparian, pine–cypress, juniper, and annual grassland habitats	Observed several times during surveys.
Plestiodon skiltonianus interparietalis	Coronado skink	None/WL/Covered	Group 2	Woodlands, grasslands, pine forests, and chaparral; rocky areas near water	High potential to occur on site. The project site is within this species' range (Nafis 2018) and there is suitable habitat on site.
Salvadora hexalepis virgultea	coast patch- nosed snake	None/SSC/Covered	Group 2	Brushy or shrubby vegetation; requires small mammal burrows for refuge and overwintering sites	High potential to occur on site. The project site is within this species' range (Nafis 2018) and there is suitable habitat on site.



Scientific Name	Common Name	Status (Federal/State/San Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
Sceloporus graciosus vandenburgianus	southern sagebrush lizard	None/None/None	Group 2	Montane chaparral, hardwood and conifer forest, juniper, coastal scrub	Moderate potential to occur on site. This species is found in montane habitats, but the project site is within this species' range (Nafis 2018) and there is suitable habitat on site in open chaparral and scrub habitats where rocky areas are present.

Federal

BCC = Bird of Conservation Concern FE = Federally Endangered

State

FP = Fully Protected SSC = State Species of Concern

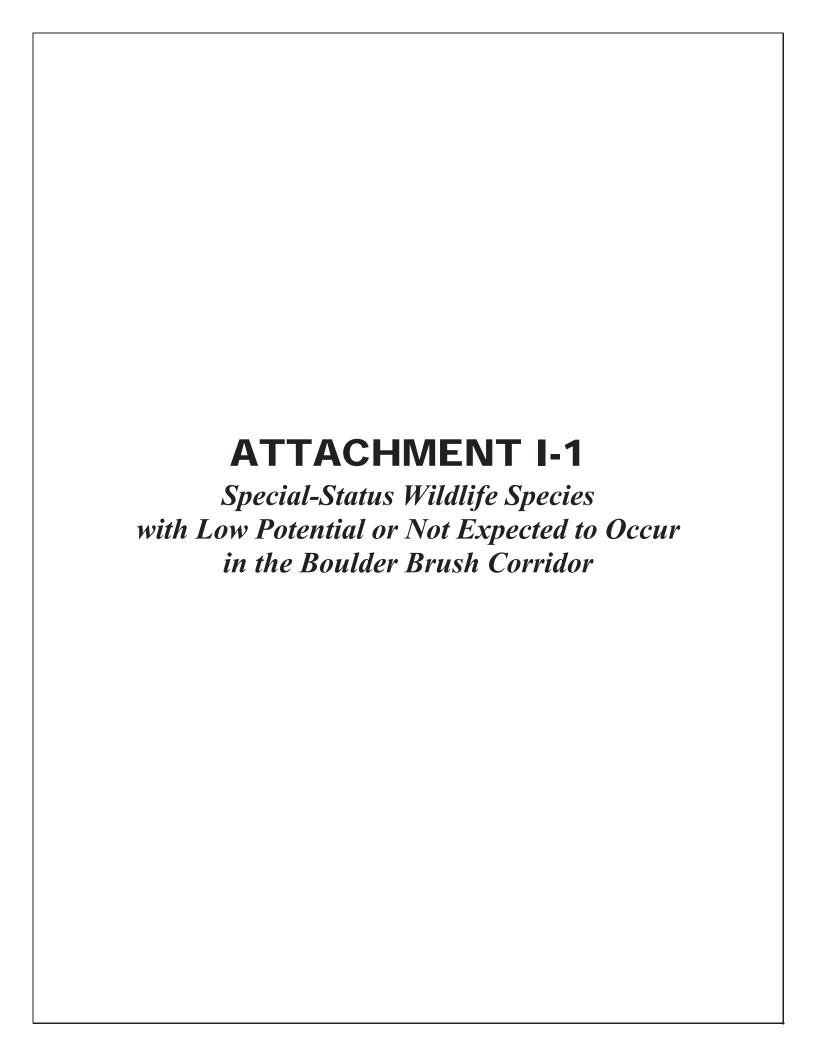
WL = Watch List



ATTACHMENT H-2

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ATTACHMENT I-1 Special-Status Wildlife Species with Low Potential or Not Expected to Occur in the Project Study Area

Scientific Name	Common Name	Status (Federal/State/Sa n Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
				Amphibians	
Anaxyrus californicus	arroyo toad	FE/SSC/Covered	Group 1	Semi-arid areas near washes, sandy riverbanks, riparian areas, palm oasis, Joshua tree, mixed chaparral and sagebrush; stream channels for breeding (typically third order); adjacent stream terraces and uplands for foraging and wintering	Low potential to occur. There are no suitable perennial washes or stream channels for breeding present. The closest recorded occurrences are located in Cottonwood Creek, approximately 6.5 miles east of the project site (USFWS 2018). Surveys conducted for the Campo Indian Reservation south of the project site in 2010 were negative (AECOM 2010b).
Anaxyrus punctatus	red-spotted toad	None/None/Cover ed	None	Rocky desert streams, oases, pools in rocky arroyos, cattle tanks, grassland, oak woodland, scrubland, river floodplains	Not expected to occur. Does not occur in vicinity (CDFW 2018); outside of range.
Batrachoseps major aridus	desert slender salamander	FE/SE/Covered	Group 1	Barren, palm oasis, desert wash, and desert scrub	Not expected to occur. Does not occur in vicinity; the closest records are from the Santa Rosa Mountains to the north (CDFW 2018).
Ensatina klauberi	large-blotched salamander	None/WL/Covered	Group 1	Moist and shaded evergreen and deciduous woodlands	Low potential to occur. This species occurs in the Peninsular Ranges; however, there is no suitable moist evergreen and deciduous woodlands present.
Rana draytonii	California red- legged frog	FT/SSC/Covered	Group 1	Lowland streams, wetlands, riparian woodlands, livestock ponds; dense, shrubby or emergent vegetation associated with deep, still or slow-moving water; uses adjacent uplands	Not expected to occur. This species has not been documented in the vicinity (CDFW 2018) and there is no suitable habitat on site; outside of currently known range.
Rana muscosa	mountain yellow-legged frog	FE/SE, WL/Covered	Group 1	Lakes, ponds, meadow streams, isolated pools, and open riverbanks; rocky canyons in narrow canyons and in chaparral	Not expected to occur. Does not occur in vicinity; the closest record is in Doane Valley in Palomar Mountain in 1975 (CDFW 2018).
Taricha torosa (Monterey Co. south only)	California newt	None/SSC/Covere d	Group 2	Wet forests, oak forests, chaparral, and rolling grassland	Not expected to occur. Does not occur in vicinity (CDFW 2018).

Scientific Name	Common Name	Status (Federal/State/Sa n Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
			-	Birds	
Accipiter striatus (nesting)	sharp-shinned hawk	None/WL/None	Group 1	Nests in coniferous forests, ponderosa pine, black oak, riparian deciduous, mixed conifer, Jeffrey pine; winters in lowland woodlands and other habitats	Sharp-shinned hawks do not nest in San Diego County (Unitt 2004). This species could occur during winter or migration and forage on site, and has been observed in the area (AECOM 2012).
Aechmophorus occidentalis	western grebe	None/None/None	Group 1	Winters in sheltered bays or estuaries on the coast and on large freshwater lakes, rarely on rivers.	Not expected to occur. Does not occur in vicinity (CDFW 2018) and there is no suitable habitat on site.
Agelaius tricolor (nesting colony)	tricolored blackbird	BCC/PSE, SSC/Covered	Group 1	Nests near freshwater, emergent wetland with cattails or tules, but also in Himalayan blackberrry; forages in grasslands, woodland, and agriculture	Low potential to occur. There is no suitable freshwater emergent wetland present. The closest CNDDB occurrence is 4.0 miles southeast of the project area east of Tule Lake; however, this species was recorded on the Campo Indian Reservation (AECOM 2012).
Ammodramus savannarum (nesting)	grasshopper sparrow	None/SSC/Covere d	Group 1	Nests and forages in moderately open grassland with tall forbs or scattered shrubs used for perches	Not expected to occur. Does not occur in vicinity (CDFW 2018; Unitt 2004).
Anas strepera	gadwall	None/None/None	Group 2	Interior valleys, wetlands, ponds, and streams. Feeds and rests in freshwater lacustrine and emergent habitats, and to a lesser extent, estuarine and saline emergent habitats, and nests in nearby herbaceous and cropland habitats. Common in Central Valley and less common in Coast Range foothills of central and Southern California. Locally common in Imperial Valley and along Colorado River, October to March. Breeds on northeastern plateau and east of Sierra Nevada.	Low potential to occur due to lack of suitable habitat on site.
Anser caerulescens	snow goose	None/None/None	Group 2	Fresh emergent wetlands, adjacent lacustrine waters, and nearby wet croplands, pastures, meadows, and grasslands. Occasionally found in saline (brackish) emergent wetlands and	Not expected to occur. Snow geese are a rare winter visitor to San Diego County and have not been recorded in the vicinity (Unitt 2004; CDFW 2018).

Scientific Name	Common Name	Status (Federal/State/Sa n Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
				adjacent estuarine waters. Found primarily in Central Valley; less common southward in the interior but abundant in Imperial Valley and locally common along Colorado River. Found regularly only in Southern California along Coast Ranges and immediate coast from mid-November to February.	
Antigone canadensis canadensis (wintering)	lesser sandhill crane	None/SSC/None	Group 2	Winter foraging in cropland, grazed and mowed grassland, pasture, alfalfa fields, and shallow wetlands; roosting sites are flooded and support several inches of water	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Antigone canadensis tabida (nesting & wintering)	greater sandhill crane	None/ST, FP/None	Group 2	Winter foraging in cropland, grazed and mowed grassland, pasture, alfalfa fields, and shallow wetlands; roosting sites are flooded and support several inches of water	Not expected to occur. This species is rarely documented in San Diego County (Unitt 2004).
Ardea herodias (nesting colony)	great blue heron	None/None/None	Group 2	Nests in large trees or snags; forages in wetlands, water bodies, watercourses, and opportunistically in uplands, including pasture and croplands	Not expected to nest on site; the project site is located outside of known breeding areas in San Diego County (Unitt 2004); however, it could occur on site during winter.
Asio flammeus (nesting)	short-eared owl	None/SSC/None	Group 2	Grassland, prairies, dunes, meadows, irrigated lands, and saline and freshwater emergent wetlands	Not expected to occur. Short-eared owl primarily a winter visitor in San Diego County and has not been recorded in the vicinity (Unitt 2004).
Athene cunicularia (burrow sites & some wintering sites)	burrowing owl	BCC/SSC/Covere d	Group 1	Nests and forages in grassland, open scrub, and agriculture, particularly with ground squirrel burrows	Not expected to occur. Burrowing owl are not known to occur between the Jacumba Valley and Otay areas in San Diego County.
Aythya americana (nesting)	redhead	None/SSC/None	Group 2	Nests in deep (>3 ft) permanent or semi- permanent wetlands of at least 1 acre; 75% open water; emergent tules, Scirpus spp., and Typha spp. 3 feet in height; winters in coastal estuaries and large,	Not expected to occur. Does not occur in vicinity (CDFW 2018) and there is no suitable habitat on site.

Scientific Name	Common Name	Status (Federal/State/Sa n Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
				deep ponds, lakes, and reservoirs of the interior	
Branta canadensis	Canada goose	None/None/None	Group 2	Lakes, rivers, ponds, and other bodies of water; yards, park lawns, and agricultural fields	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Bucephala islandica (nesting)	Barrow's goldeneye	None/SSC/None	Group 2	Winters in lagoons, bays, and estuaries in coastal areas, and riverine waters, lakes, and reservoirs in the interior	Not expected to occur. Does not occur in vicinity (CDFW 2018) and there is no suitable habitat on site.
Buteo regalis (wintering)	ferruginous hawk	BCC/WL/Covered	Group 1	Winters and forages in open, dry country, grasslands, open fields, agriculture	Low potential to occur during the winter. Ferruginous hawk is an uncommon winter visitor in San Diego County, but it has been observed in the Campo Indian Reservation area (AECOM 2012) and towards Jacumba Valley (Unitt 2004). There is suitable foraging habitat in the grassland and open scrub habitat.
Buteo swainsoni (nesting)	Swainson's hawk	BCC/ST/Covered	Group 1	Nests in open woodland and savanna, riparian, and in isolated large trees; forages in nearby grasslands and agricultural areas such as wheat and alfalfa fields and pasture	Low potential to occur. Swainson's hawks are uncommon in San Diego County; however, two Swainson's hawks were detected during bird count surveys on the Campo Indian Reservation (AECOM 2012). Due to lack of additional observations in the area (Unitt 2004; CDFW 2018), this species has low potential to occur on site during migration.
Butorides virescens	green heron	None/None/None	Group 2	Nests and roosts in valley foothill and desert riparian habitats; feeds in fresh emergent wetland, lacustrine, slowmoving riverine habitats. Resident in foothills and lowlands throughout California; common August to March in southern coastal ranges, in summer along the Colorado River, and found all year at the Salton Sea.	Low potential to occur. There is no suitable habitat on site and this species has not been confirmed nesting in the vicinity (Unitt 2004).
Campylorhynchus brunneicapillus sandiegensis	coastal cactus wren	BCC/SSC/ Covered	Group 1	Southern cactus scrub patches	Not expected to occur. San Diego cactus wren rely on cactus thickets at elevations below 1,500 feet and the species in the Boulevard area are considered the

Scientific Name	Common Name	Status (Federal/State/Sa n Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
(San Diego & Orange Counties only)					desert subspecies (Unitt 2004). The site is above this elevation range and there are no large patches of <i>Cylindropuntia</i> spp. or <i>Opuntia</i> spp. on site; however, there are scattered cacti throughout the scrub and chaparral. <i>C. brunneicapillus</i> (desert subspecies) was documented on site and on the Campo Indian Reservation (AECOM 2012)
Cerorhinca monocerata (nesting colony)	rhinoceros auklet	None/WL/None	Group 2	Marine pelagic and subtidal habitats	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Charadrius alexandrinus nivosus (nesting)	western snowy plover	FT, BCC/SSC/None	Group 1	On coasts nests on sandy marine and estuarine shores; in the interior nests on sandy, barren or sparsely vegetated flats near saline or alkaline lakes, reservoirs, and ponds	Not expected to occur. Does not occur in vicinity (CDFW 2018) and there is no suitable habitat on site.
Charadrius montanus (wintering)	mountain plover	BCC/SSC/None	Group 2	Winters in shortgrass prairies, plowed fields, open sagebrush, and sandy deserts	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Chlidonias niger (nesting colony)	black tern	None/SSC/None	Group 2	Freshwater marsh with emergent vegetation; in the Central Valley primarily nests and forages in rice fields and other flooded agricultural fields with weeds and other residual aquatic vegetation	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Coccyzus americanus occidentalis (nesting)	western yellow-billed cuckoo	FT, BCC/SE/Covered	Group 1	Nests in dense, wide riparian woodlands and forest with well-developed understories	Not expected to occur. Does not occur in vicinity (CDFW 2018) and there are no dense wide riparian areas on site.
Contopus cooperi (nesting)	olive-sided flycatcher	BCC/SSC/None	Group 2	Nests in mixed-conifer, montane hardwood–conifer, Douglas-fir, redwood, red fir, and lodgepole pine habitats; usually close to water	Not expected to nest on site due to lack of suitable nesting habitat. This species was observed on the Campo Indian Reservation (AECOM 2012).
Cypseloides niger (nesting)	black swift	BCC/SSC/None	Group 2	Nests in moist crevices, caves, and cliffs behind or adjacent to waterfalls in deep canyons; forages over a wide range of habitats	Not expected to nest on site due to lack of suitable nesting habitat. This species was observed on the Campo Indian Reservation (AECOM 2012).

Scientific Name	Common Name	Status (Federal/State/Sa n Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
Dendrocygna bicolor (nesting)	fulvous whistling-duck	None/SSC/None	Group 2	Nests in freshwater wetlands, especially shallow impoundments managed for rice production and temporarily flooded grasslands; also nests in pastures, haylands, and small grain fields adjacent to rice fields	Not expected to occur. Does not occur in vicinity (CDFW 2018) and there is no suitable habitat on site.
Egretta rufescens	reddish egret	None/None/None	Group 2	Freshwater marsh with emergent vegetation; in the Central Valley primarily nests and forages in rice fields and other flooded agricultural fields with weeds and other residual aquatic vegetation	Not expected to occur. Does not occur in vicinity (CDFW 2018; Unitt 2004).
Elanus leucurus (nesting)	white-tailed kite	None/FP/Covered	Group 1	Nests in woodland, riparian, and individual trees near open lands; forages opportunistically in grassland, meadows, scrubs, agriculture, emergent wetland, savanna, and disturbed lands	Low potential to occur. This species is more commonly found along the coastal slope in San Diego County, and has not been documented nesting in the vicinity (Unitt 2004; CDFW 2018). This species may occur during migration or winter, and was observed in McCain Valley in the winter (Unitt 2004) and documented on the Campo Indian Reservation (AECOM 2012).
Empidonax traillii extimus (nesting)	southwestern willow flycatcher	FE/SE/Covered	Group 1	Nests in dense riparian habitats along streams, reservoirs, or wetlands; uses variety of riparian and shrubland habitats during migration	Not expected to occur. Does not occur in vicinity (CDFW 2018), and focused protocol surveys conducted in 2018 for this species were negative. There is marginal riparian habitat for this species, which prefers habitat along perennial streams and rivers.
Falco mexicanus (nesting)	prairie falcon	BCC/WL/None	Group 1	Forages in grassland, savanna, rangeland, agriculture, desert scrub, alpine meadows; nest on cliffs or bluffs	Low potential to nest on site due to lack of nesting habitat. Prairie falcon could forage on site in the grassland and open scrub habitats. This species has been observed in the vicinity (CDFW 2018; AECOM 2012).
Falco peregrinus anatum (nesting)	American peregrine falcon	FDL, BCC/SDL, FP/None	Group 1	Nests on cliffs, buildings, and bridges; forages in wetlands, riparian, meadows, croplands, especially where waterfowl are present	Not expected to occur. Peregrine falcons are not known to occur in the vicinity; they are documented along the coast in San Diego County (CDFW 2018; Unitt 2004).
Fratercula cirrhata	tufted puffin	None/SSC/None	Group 2	Nests on offshore rocks and islands free	Not expected to occur. Does not occur in vicinity

Scientific Name	Common Name	Status (Federal/State/Sa n Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
(nesting colony)				of mammalian predators, either in earthen burrows or crevices on steep rocky slopes	(CDFW 2018).
Gavia immer (nesting)	common loon	None/SSC/None	Group 2	Extirpated as a breeder from California; winters in coastal waters such as bays, channels, coves, and inlets; also winters inland at large, deep lakes and reservoirs	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Gymnogyps californianus	California condor	FE/SE, FP/None	None	Forages on open terrain, foothill grassland, and oak savannah; nests in cavities on steep rocks or burned hallos of old-growth conifers and giant sequoia trees	Low potential to forage and not expected to nest. There is potential foraging habitat, however no suitable nesting vegetation present.
Haliaeetus leucocephalus (nesting & wintering)	bald eagle	FDL, BCC/SE, FP/None	Group 1	Nests in forested areas adjacent to large bodies of water, including seacoasts, rivers, swamps, large lakes; winters near large bodies of water in lowlands and mountains	Not expected to occur. Wintering individuals have been recorded west of the project site (Unitt 2004); however, there are no bodies of water to support foraging habitat for this species.
Icteria virens (nesting)	yellow- breasted chat	None/SSC/None	Group 1	Nests and forages in dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush	Low potential to occur. There is no suitable dense riparian woodland present and there are limited records of this species in southeastern San Diego County (Unitt 2004).
Ixobrychus exilis (nesting)	least bittern	BCC/SSC/Covere d	Group 2	Nests in freshwater and brackish marshes with dense, tall growth of aquatic and semi-aquatic vegetation	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Junco hyemalis caniceps (nesting)	gray-headed junco	None/WL/None	Group 2	Nests and forages in pine and juniperpine forests	Not expected to occur. This species is not documented in vicinity (CDFW 2018; Unitt 2004). Gray-headed junco is rare along the coast and rare to uncommon in the mountains (Unitt 2004).
Larus californicus (nesting colony)	California gull	None/WL/None	Group 2	Nests in alkali and freshwater lacustrine habitats; abundant in coastal and interior lowlands during non-nesting period	Not expected to occur. Does not occur in vicinity (CDFW 2018; Unitt 2004).
Laterallus jamaicensis coturniculus	California black rail	BCC/ST, FP/None	Group 2	Tidal marshes, shallow freshwater margins, wet meadows, and flooded grassy vegetation; suitable habitats are often supplied by canal leakage in Sierra	Not expected to occur. Does not occur in vicinity (CDFW 2018) and there is no suitable habitat on site. The last known nesting black rail in San Diego County was in 1954 (Unitt 2004).

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				Nevada foothill populations	
Leucophaeus atricilla (nesting colony)	laughing gull	None/WL/None	Group 2	Coastal saltmarsh, bays, and estuaries	Not expected to occur. Does not occur in vicinity (CDFW 2018; Unitt 2004).
Melanerpes lewis (nesting)	Lewis's woodpecker	BCC/None/None	Group 1	Winters in open oak woodland and savanna; nests in open ponderosa pine forest and logged or burned pine forest	Lewis' woodpecker does not nest in San Diego County, but is a winter visitor (Unitt 2004). There is potential for this species to forage on site during the winter, although none have been observed during wildlife surveys.
Mycteria americana	wood stork	None/SSC/None	Group 2	Nests in freshwater and marine-estuarine forested habitats; forages in natural and artificial wetlands; roosts in trees, usually over water	Not expected to occur. This species is a very rare visitor to San Diego County (Unitt 2004); and the site does not support ponded water to support foraging.
Myiarchus tyrannulus (nesting)	brown-crested flycatcher	None/WL/Covered	None	Desert riparian habitat along Colorado River and other desert oases; riparian thickets, trees, snags, and shrubs used as perches; nests in woodpecker- excavated cavities	Low potential to nest on site. This species nests in riparian woodland habitat, and has only been documented nesting in San Diego County since 2000; it has not been recorded in the vicinity (CDFW 2018; Unitt 2004).
Numenius americanus (nesting)	long-billed curlew	BCC/WL/None	Group 2	Nests in grazed, mixed grass, and short- grass prairies; localized nesting along the California coast; winters and forages in coastal estuaries, mudflats, open grassland, and cropland	Not expected to occur. Long-billed curlews are winter visitors in San Diego County, and the closest migration record is Lake Morena, southwest of the project site (Unitt 2004; CDFW 2018).
Oceanodroma furcata (nesting colony)	fork-tailed storm-petrel	None/SSC/None	Group 2	Offshore islands with restricted access and free of mammalian predators; nesting habitat varies across islands from natural crevices in talus slopes to earthen burrows dug by themselves or other species	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Oceanodroma homochroa (nesting colony)	ashy storm- petrel	BCC/SSC/None	Group 2	Nests on rocky offshore islands on talus slopes, rock walls, sea caves, cliffs, and under piles of driftwood; they do not excavate their own nesting burrows	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Oceanodroma melania (nesting	black storm- petrel	None/SSC/None	Group 2	Nests on small rocky islands or talus slopes of larger islands free of	Not expected to occur. Does not occur in vicinity (CDFW 2018).

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colony)				mammalian predators; occurs on land only to breed	
Oreothlypis luciae (nesting)	Lucy's warbler	BCC/SSC/ Covered	Group 1	Nests and forages in desert wash and desert riparian habitats, especially dominated by mesquite, but also in other shrubs and tamarisk	Not expected to occur. Does not occur in vicinity (CDFW 2018; Unitt 2004). Breeding has only been documented in the Borrego Valley (Unitt 2004).
Pandion haliaetus (nesting)	osprey	None/WL/None	Group 1	Large waters (lakes, reservoirs, rivers) supporting fish; usually near forest habitats, but widely observed along the coast	Not expected to occur on site due to lack of suitable habitat (i.e., bodies of water). It has been documented as presumed migrants in the vicinity (Unitt 2004), and was recorded on the Campo Indian Reservation (AECOM 2012).
Passerculus sandwichensis beldingi	Belding's savannah sparrow	None/SE/None	Group 1	Nests and forages in coastal saltmarsh dominated by pickleweed (Salicornia spp.)	Not expected to nest on site. Does not occur in vicinity as nesting is documented only along the coast in San Diego County (CDFW 2018; Unitt 2004).
Passerculus sandwichensis rostratus (wintering)	large-billed savannah sparrow	None/SSC/None	Group 2	Nests and forages in open, low saltmarsh vegetation, including low halophytic scrub	Low potential to occur in the marsh habitat in portions of Tule Creek. It is a rare winter visitor in San Diego County (Unitt 2004).
Pelecanus erythrorhynchos (nesting colony)	American white pelican	None/SSC/None	Group 2	Nests colonially on sandy, earthen, or rocky substrates on isolated islands in freshwater lakes; minimal disturbance from predators; access to foraging areas on inland marshes, lakes, or rivers; winters on shallow coastal bays, inlets, and estuaries	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Pelecanus occidentalis californicus (nesting colonies & communal roosts)	California brown pelican	FDL/SDL, FP/None	Group 2	Forages in warm coastal marine and estuarine environments; in California, nests on dry, rocky offshore islands	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Phalacrocorax auritus (nesting colony)	double- crested cormorant	None/WL/None	Group 2	Nests in riparian trees near ponds, lakes, artificial impoundments, slow-moving rivers, lagoons, estuaries, and open	Not expected to occur. Does not occur in vicinity (CDFW 2018) and there is no suitable habitat on site.

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				coastlines; winter habitat includes lakes, rivers, and coastal areas	
Piranga rubra (nesting)	summer tanager	None/SSC/ Covered	Group 2	Nests and forages in mature desert riparian habitats dominated by cottonwoods and willows	Not expected to occur. Does not occur in vicinity (CDFW 2018; Unitt 2004).
Plegadis chihi (nesting colony)	white-faced ibis	None/WL/None	Group 1	Nests in shallow marshes with areas of emergent vegetation; winter foraging in shallow lacustrine waters, flooded agricultural fields, muddy ground of wet meadows, marshes, ponds, lakes, rivers, flooded fields, and estuaries	Not expected to occur. Does not occur in vicinity (CDFW 2018; Unitt 2004).
Polioptila californica californica	coastal California gnatcatcher	FT/SSC/Covered	Group 1	Nests and forages in various sage scrub communities, often dominated by California sagebrush and buckwheat; generally avoids nesting in areas with a slope of greater than 40%; majority of nesting at less than 1,000 feet above mean sea level	Not expected to occur. Outside of range; this species has not been documented in San Diego at elevations higher than 2,400 feet (Unitt 2004).
Progne subis (nesting)	purple martin	None/SSC/ Covered	Group 1	Nests and forages in woodland habitats including riparian, coniferous, and valley foothill and montane woodlands; in the Sacramento region often nests in weep holes under elevated freeways	Not expected to occur. Its distribution in San Diego County is limited to the mountains and European starlings have taken over much of their nesting habitat (Unitt 2004).
Pyrocephalus rubinus (nesting)	vermilion flycatcher	None/SSC/ Covered	Group 1	Nests in riparian woodlands, riparian scrub, and freshwater marshes; typical desert riparian with cottonwood, willow, mesquite adjacent to irrigated fields, ditches, or pastures	Low potential to occur. Only a single male has been recorded in the vicinity (McCain Valley); no nesting has been documented in the area (Unitt 2004).
Rallus obsoletus levipes	Ridgway's rail	FE/SE, FP/None	Group 1	Coastal wetlands, brackish areas, coastal saline emergent wetlands	Not expected to occur. Does not occur in vicinity and there is no suitable habitat (CDFW 2018).
Riparia riparia (nesting)	bank swallow	None/ST/None	Group 1	Nests in riparian, lacustrine, and coastal areas with vertical banks, bluffs, and cliffs with sandy soils; open country and water during migration	No potential to nest on site due lack of nesting habitat and there are currently no known nesting colonies in San Diego County (Unitt 2004). This species was recorded on the Campo Indian Reservation (AECOM 2012) and has potential to

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					forage on site during migration.
Rynchops niger (nesting colony)	black skimmer	BCC/SSC/None	Group 1	Nests on barrier beaches, shell banks, spoil islands, and saltmarsh; forages over open water; roosts on sandy beaches and gravel bars	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Sternula antillarum browni (nesting colony)	California least tern	FE/SE, FP/None	Group 1	Forages in shallow estuaries and lagoons; nests on sandy beaches or exposed tidal flats	Not expected to occur. Does not occur in vicinity and there is no suitable habitat (CDFW 2018).
Strix occidentalis occidentalis	California spotted owl	BCC/SSC/ Covered	Group 1	Nests and forages in dense, old-growth, multi-layered mixed-conifer, redwood, and Douglas-fir habitats	Not expected to occur. This species typically nests at elevations above 2,500 feet where oak woodlands are dusky-footed woodrats are common (Unitt 2004). The closest known breeding location is in the Laguna Mountains, approximately, 7 miles northwest of the project site (Unitt 2004).
Synthliboramphus scrippsi (nesting colony)	Scripps's murrelet	FC, BCC/ST/None	Group 2	Nests on steep sea slopes, canyons, and cliffs with sparse vegetation	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Thalasseus elegans (nesting colony)	elegant tern	None/WL/None	Group 1	Inshore coastal waters, bays, estuaries, and harbors; forages over open water	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Toxostoma bendirei	Bendire's thrasher	BCC/SSC/None	Group 2	Nests and forages in desert succulent shrub and Joshua tree habitat in Mojave Desert; nests in yucca, cholla, and other thorny scrubs or small trees	Not expected to occur. Outside of range; this species is largely restricted to the Mojave Desert and records in San Diego County are limited (Unitt 2004).
Toxostoma crissale	Crissal thrasher	None/SSC/ Covered	Group 1	Nests and forages in desert riparian and desert wash; dense thickets of sagebrush and other shrubs such as mesquite, iron catclaw acacia, and arrowweed willow within juniper and pinyon–juniper woodlands	Not expected to occur. Does not occur in vicinity (CDFW 2018); this species occurs in the Borrego Valley (Unitt 2004).
Toxostoma lecontei	LeConte's thrasher	BCC/SSC/ Covered	Group 2	Nests and forages in desert wash, desert scrub, alkali desert scrub, desert succulent, and Joshua tree habitats; nests in spiny shrubs or cactus	Not expected to occur. Does not occur in vicinity (CDFW 2018).

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Vireo bellii pusillus (nesting)	least Bell's vireo	FE/SE/Covered	Group 1	Nests and forages in low, dense riparian thickets along water or along dry parts of intermittent streams; forages in riparian and adjacent shrubland late in nesting season	Low potential to occur. There is no suitable dense riparian thickets along water present and focused protocol surveys conducted in 2018 for this species were negative. Surveys conducted for the Campo Indian Reservation south of the project site in 2010 were negative (AECOM 2010a).
Xanthocephalus xanthocephalus (nesting)	yellow-headed blackbird	None/SSC/ Covered	None	Nests in marshes with tall emergent vegetation, often along borders of lakes and ponds; forages in emergent wetlands, open areas, croplands, and muddy shores of lacustrine habitat	Not expected to occur. Does not occur in vicinity (CDFW 2018).
		T		Fishes	
Cyprinodon macularius	desert pupfish	FE/SE/None	Group 2	Desert springs, small streams, and marshes below 1,515 meters (5,000 feet) above mean sea level; tolerates high salinities, high water temperatures, and low dissolved-oxygen concentrations	Not expected to occur. There are no perennial water sources on the project site that could support this species.
Eucyclogobius newberryi	tidewater goby	FE/SSC/None	Group 1	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County, to the mouth of the Smith River	Not expected to occur. Does not occur in vicinity (CDFW 2018) and there are no perennial water sources on the project site that could support this species.
Gasterosteus aculeatus williamsoni	unarmored threespine stickleback	FE/SE, FP/None	Group 2	Slow-moving and backwater areas	Not expected to occur. There are no perennial water sources on the project site that could support this species, and it is not documented in the vicinity (CDFW 2018).
Gila orcuttii	arroyo chub	None/SSC/None	Group 1	Warm, fluctuating streams with slow- moving or backwater sections of warm to cool streams at depths >40 centimeters (16 inches); substrates of sand or mud	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Oncorhynchus mykiss irideus	southern steelhead - southern California DPS	FE/None/None	Group 1	Clean, clear, cool, well-oxygenated streams; needs relatively deep pools in migration and gravelly substrate to spawn	Not expected to occur. There are no perennial water sources on the project site that could support this species, and it is not documented in the vicinity (CDFW 2018).

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		, , , , ,		Invertebrates	
Ariolimax columbianus stramineus	Palomar banana slug	None/None/Cover ed	Group 2	Moist forests; dark, damp habitats, such as under logs or other decomposing material	Not expected to occur. Does not occur in vicinity (CDFW 2018); the closest population is located in the Palomar Mountains.
Branchinecta sandiegonensis	San Diego fairy shrimp	FE/None/None	Group 1	Vernal pools, non-vegetated ephemeral pools	Not expected to occur. Does not occur in vicinity; this species' range is much further west in San Diego County (USFWS 2018; CDFW 2018).
Brennania belkini	Belkin's dune tabanid fly	None/None/None	Group 2	Inhabits coastal sand dunes of Southern California	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Callophrys thornei	Thorne's hairstreak	None/None/None	Group 1	Interior cypress woodland dominated by host plant <i>Hesperocyparis forbesii</i> (Tecate cypress)	Not expected to occur. No Tecate cypress were observed on site.
Cicindela gabbii	western tidal- flat tiger beetle	None/None/None	Group 2	Inhabits estuaries and mudflats along the coast of Southern California	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Cicindela hirticollis gravida	sandy beach tiger beetle	None/None/None	Group 2	Inhabits areas adjacent to non-brackish water along the coast of California from San Francisco Bay to northern Mexico	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Cicindela latesignata latesignata	western beach tiger beetle	None/None/None	Group 2	Mudflats and beaches in coastal Southern California	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Cicindela senilis frosti	senile tiger beetle	None/None/None	Group 2	Inhabits marine shoreline, from Central California coast south to saltmarshes of San Diego; also found at Lake Elsinore	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Cicindela trifasciata sigmoidea	Mudflat tiger beetle	None/None/None	Group 2	Marshes along coast and edges of marshes and rivers.	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Cincindela latesignata obliviosa	Oblivious tiger beetle	None/None/None	Group 2	Inhabited the Southern California coastline, from La Jolla north to the Orange County line. Occupied saline mudflats and moist sandy spots in estuaries of small streams in the lower zone. Has not been observed in 20 years. The oblivious tiger beetle (C. I. obliviosa) is no longer the accepted	Not expected to occur. Does not occur in vicinity (CDFW 2018).

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				name for this species (ITIS 2016).	
Coelus globosus	globose dune beetle	None/None/None	Group 1	Inhabitant of coastal sand dune habitat; erratically distributed from Ten Mile Creek in Mendocino County south to Ensenada, Mexico	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Euphyes vestris harbisoni	Harbison dun skipper	None/None/Cover ed	Group 1	Oak riparian drainages and adjacent seeps supporting host plant Carex spissa	Not expected to occur. This species has a very limited distribution and it is unlikely to occur based on estimated range of this species (Marschalek and Deutschman 2015).
Helminthoglypta traski coelata	Peninsular Range shoulderband snail	None/None/Cover ed	Group 2	Wet habitats	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Linderiella occidentalis	California linderiella	None/None/None	Group 1	Cool soft-water vernal pools in grasslands below 1,000 feet above mean sea level	Not expected to occur. Does not occur at elevations above 1,000 feet.
Lycaena hermes	Hermes copper	FC/None/Covered	Group 1	Mixed woodlands, chaparral, and coastal scrub	Not expected to occur. Known ranges for this species are further west towards Descanso, Jamul, and Potrero (CDFW 2018). Additionally, no <i>Rhamnus crocea</i> , this species' host plant, were observed on site.
Megathymus yuccae harbisoni	Coastal giant skipper	None/None/None	Group 2	Coastal dunes, open yucca flats, desert canyons, open woodland, grassland, and old fields. Host plant is Yucca schidigera. Record from eastern San Diego County near Scissors Crossing, Anza-Borrego Desert State Park.	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Panoquina errans	wandering skipper	None/None/None	Group 1	Saltmarsh	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Papilio multiculdata	Two-tailed swallowtail	None/None/None	Group 1	Foothill slopes and canyons, moist valleys, streamsides, woodlands, parks, roadsides, and urban settings. Host plants include Fraxinus, Ptelea, and Prunus species (Butterflies and Moths of North America 2016).	Low potential to occur. There are <i>Prunus</i> spp. recorded on site.; however, this conspicuous species was not observed during protocol butterfly species. Flight season for two-tailed swallowtail is March through September (Shiraiwa 2009), and focused butterfly surveys were conducted

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					between March and June 2018.
Phobetus robinsoni	Robinson's rain beetle	None/None/None	Group 2	Known from two locations in Orange County and only known from Scissors Crossing in San Diego County (43 FR 35636 35643).	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Plebejus saepiolus hilda	Hilda greenish blue	None/None/None	Group 1	At species level: bogs, stream edges, open fields, meadows, open forests, and roadsides. Host plants include species of Trifolium (Butterflies and Moths of North America 2016).	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Pseudocopaeode s eunus eunus	alkali skipper	None/None/ Covered	Group 1	Grassy spots on alkali flats; playa/salt flats	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Pyrgus ruralis lagunae	Laguna Mountains skipper	FE/None/Covered	Group 1	Restricted to montane meadows of Laguna Mountains and Mount Palomar	Not expected to occur. This species' range is restricted to the Laguna Mountains and Mount Palomar. The closest recorded occurrence is approximately 10 miles northeast of the project site (CDFW 2018; USFWS 2018).
Streptocephalus woottoni	Riverside fairy shrimp	FE/None/None	Group 1	Vernal pools, non-vegetated ephemeral pools	Not expected to occur. Does not occur in vicinity; this species' range is much further west in San Diego County (USFWS 2018; CDFW 2018).
Trigonoscuta blaisdelli	Blaisdell trigonoscuta weevil	None/None/None	Group 2	Trigonoscuta sp.: Coastal, desert, or inland sand dunes; wide variety of plant types used; the larvae feed on the roots and the adults on the leaves.	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Tryonia imitator	mimic tryonia (=California brackishwater snail)	None/None/None	Group 2	Inhabits coastal lagoons, estuaries, and saltmarshes, from Sonoma County south to San Diego County	Not expected to occur. Does not occur in vicinity (CDFW 2018).
				Mammals	
Bassariscus astutus	ringtail	None/FP/Covered	Group 2	Mixed forests and shrublands near rocky areas or riparian habitats; forages near water and is seldom found more than 1 kilometer (0.62 mile) from a water source	Low potential to occur. Does not occur in vicinity (CDFW 2018) and there is marginal habitat for this species on site.
Chaetodipus fallax fallax	northwestern San Diego	None/SSC/None	Group 2	Coastal scrub, mixed chaparral, sagebrush, desert wash, desert scrub,	Low potential to occur. There are limited records for this species in southeast San Diego County

Scientific Name	Common Name	Status (Federal/State/Sa n Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
	pocket mouse			desert succulent shrub, pinyon-juniper, and annual grassland	(Tremor et al. 2017).
Chaetodipus fallax pallidus	pallid San Diego pocket mouse	None/SSC/None	Group 2	Desert wash, desert scrub, desert succulent scrub, and pinyon–juniper woodland	Not expected to occur. No suitable vegetation present.
Choeronycteris mexicana	Mexican long- tongued bat	None/SSC/None	Group 2	Desert and montane riparian, desert succulent scrub, desert scrub, and pinyon–juniper woodland; roosts in caves, mines, and buildings	Not expected to occur. This species occurs further west along the coast and immediately inland (Tremor et al., 2017; CDFW 2018). It was not detected during the 2011/2012 acoustical bat surveys on site or on the Campo Indian Reservation (AECOM 2012).
Dipodomys merriami collinus	Earthquake Merriam's kangaroo rat	None/None/ Covered	None	Riversidean sage scrub, chaparral, and non-native grassland; associated with sandy loam soils	Not expected to occur. Outside of range; this species occurs in the desert (Tremor et al. 2017). No known occurrences within 5 miles of the project area.
Dipodomys merriami trinidadensis	Merriam's kangaroo rat	None/None/ Covered	None	Occurs in the Jacumba and Mountain Springs area	Not expected to occur. Outside of range; this species occurs in the desert (Tremor et al. 2017).
Dipodomys stephensi	Stephens' kangaroo rat	FE/ST/Covered	Group 1	Annual and perennial grassland habitats, coastal scrub or sagebrush with sparse canopy cover, or in disturbed areas	Not expected to occur. Does not occur in vicinity; this species has been documented occurring further northwest near Lake Henshaw and the Ramona area (Tremor et al., 2017; USFWS 2018; CDFW 2018).
Euderma maculatum	spotted bat	None/SSC/None	Group 2	Foothills, mountains, desert regions of southern California, including arid deserts, grasslands, and mixed-conifer forests; roosts in rock crevices and cliffs; feeds over water and along washes	Not expected to occur. Records for this species are very limited in San Diego County (Tremor et al., 2017). It was not detected during the 2011/2012 acoustical bat surveys on site or on the Campo Indian Reservation (AECOM 2012).
Lasiurus blossevillii	western red bat	None/SSC/None	Group 2	Forest, woodland, riparian, mesquite bosque, and orchards, including fig, apricot, peach, pear, almond, walnut, and orange; roosts in tree canopy	Low potential to roost on site. There is oak and riparian woodland habitat on site. Potential to forage on site; however, it was not detected during the 2011/2012 acoustical bat surveys on site or on the Campo Indian Reservation (AECOM 2012).
Lasiurus cinereus	hoary bat	None/None/None	None	Forest, woodland riparian, and wetland habitats; also juniper scrub, riparian	Low potential to roost on site. There are some large willows on site and this species was

Scientific Name	Common Name	Status (Federal/State/Sa n Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
				forest, and desert scrub in arid areas; roosts in tree foliage and sometimes cavities, such as woodpecker holes	detected during the 2011/2012 acoustical bat surveys on site as well as on the Campo Indian Reservation (AECOM 2012).
Lasiurus xanthinus	western yellow bat	None/SSC/None	None	Valley–foothill riparian, desert riparian, desert wash, and palm oasis habitats; below 2,000 feet above mean sea level; roosts in riparian and palms	Low potential to roost on site. This species was detected during the 2011/2012 acoustical bat surveys on site at a very low acoustical activity index. This species occurs in desert habitat (Tremor et al. 2017) and likely occurs on site only as an occasional migrant.
Myotis volans	long-legged myotis	None/None/None	Group 2	Primarily coniferous forests, but also seasonally in riparian and desert habitats; roosts in crevices in cliffs, caves, mines, buildings, exfoliating tree bark, and snags	Low potential to roost on site. There are no mines, caves, or buildings present, but some riparian woodland habitat. Records for this species are further north in the Laguna Mountains (Tremor et al. 2017). Potential to forage on site; however, it was not detected during the 2011/2012 acoustical bat surveys on site or on the Campo Indian Reservation (AECOM 2012).
Myotis yumanensis	Yuma myotis	None/None/None	Group 2	Riparian, arid scrublands and deserts, and forests associated with water (streams, rivers, tinajas); roosts in bridges, buildings, cliff crevices, caves, mines, and trees	Low potential to roost on site. There are no mines, caves, or buildings present, but some riparian woodland habitat. No ponded water or lakes present and this species is a water and moth specialist. This species is more commonly found along the coast, but there are records in eastern San Diego County (Tremor et al. 2017) and it was detected during the 2011/2012 acoustical bat surveys on site.
Ovis canadensis nelsoni	Nelson's bighorn sheep	None/FP/None	Group 1	Steep slopes and cliffs, rough and rocky topography, sparse vegetation; also canyons, washes, and alluvial fans	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Ovis canadensis nelsoni pop. 2 DPS	Peninsular bighorn sheep DPS	FE/ST, FP/Covered	None	Dry, rocky, low-elevation desert slopes, canyons, and washes; females near water during lambing season	Low potential to occur. This species would have been observed during surveys. The closest CNDDB occurrence is 1.3 miles northeast of the project area within the Jacumba and In-Ko-Pah Mountains in more suitable habitat (CDFW 2018). Habitat on site is too densely vegetated. Scat

Scientific Name	Common Name	Status (Federal/State/Sa n Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
					surveys conducted in July 2018 focused on detection of bighorn sheep scat and were negative. No sign of this species has been observed on site.
Perognathus longimembris bangsi	Palm Springs pocket mouse	None/SSC/ Covered	None	Creosote scrub, desert scrub, and grasslands; sparse to moderately dense vegetative cover	Not expected to occur. This subspecies inhabits the lower elevations of Anza-Borrego Desert up to 450 meters (1,476 feet) in elevation (Tremor et al., 2017).
Perognathus longimembris brevinasus	Los Angeles pocket mouse	None/SSC/ Covered	Group 2	Lower-elevation grassland, alluvial sage scrub, and coastal scrub	Not expected to occur. There are no records of this subspecies in southeast San Diego County (Tremor et al. 2017).
Perognathus longimembris pacificus	Pacific pocket mouse	FE/SSC/None	Group 1	fine-grained sandy substrates in open coastal strand, coastal dunes, and river alluvium	Not expected to occur. This species occurs along the coast (Tremor et al. 2017).
Puma concolor	cougar	None/None/None	Group 2	Scrubs, chaparral, riparian, woodland, and forest; rests in rocky areas and on cliffs and ledges that provide cover; most abundant in riparian areas and brushy stages of most habitats throughout California, except deserts	High potential to occur. This species was detected on Campo Indian Reservation (AECOM 2012). There is suitable habitat throughout the project site.
Spermophilus (Xerospermophilu s) tereticaudus chlorus	Palm Springs round-tailed ground squirrel	None/SSC/ Covered	None	Sandy arid regions of Lower Sonoran Life Zone including creosote bush scrub and creosote–palo verde	Not expected to occur. This species occurs in the desert east of the project site (Tremor et al. 2017).
				Reptiles	
Actinemys marmorata	western pond turtle	None/SSC/ Covered	Group 1	Slow-moving permanent or intermittent streams, ponds, small lakes, and reservoirs with emergent basking sites; adjacent uplands used for nesting and during winter	Not expected to occur. Does not occur in vicinity (CDFW 2018) and there is no suitable habitat on site.
Anniella pulchra	northern California legless lizard	None/SSC/ Covered	None	Coastal dunes, stabilized dunes, beaches, dry washes, valley–foothill, chaparral, and scrubs; pine, oak, and riparian woodlands; associated with sparse vegetation and sandy or loose,	Not expected to occur. <i>A. pulchra</i> does not occur in San Diego.

Scientific Name	Common Name	Status (Federal/State/Sa n Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
				loamy soils	
Aspidoscelis hyperythra	orange- throated whiptail	None/WL/Covered	Group 2	Low-elevation coastal scrub, chaparral, and valley-foothill hardwood	Low potential to occur. There is suitable scrub and chaparral vegetation present. No known CNDDB occurrences within 5 miles of the project area.
Coleonyx switaki	Switak's banded gecko	None/ST/Covered	Group 2	Rocklands, especially massive rocks and rock formations at the heads of canyons	Not expected to occur. This species occurs near Borrego Springs and south to Baja California (Nafis 2018).
Lampropeltis zonata (pulchra)	California mountain kingsnake (San Diego population)	None/WL/Covered	Group 2	Habitat generalist found in habitats including conifer forest, oak–pine woodlands, riparian woodland, chaparral, manzanita, and coastal scrub, but mostly linked to mountains.	Low potential to occur. There is marginally suitable oak, chaparral, and scrub vegetation present, but the main range for this species is in the more montane areas to the north.
Phrynosoma mcallii	flat-tailed horned lizard	None/SSC/ Covered	Group 1	Desert washes and flats with sparse low-diversity vegetation cover and sandy soils	Not expected to occur. No suitable vegetation present. The closest known CNDDB occurrence is 3.3 miles northeast of the project area between the Jacumba and In-Ko-Pah Mountains (CDFW 2018).
Sauromalus ater	common chuckwalla	None/None/ Covered	Group 2	Rock-dwelling, sheltering in rock crevices or under rocks; inhabits rocky flats and hillsides in the Mojave and Colorado Deserts; found in creosote bush habitats; sea level to 1,800 meters (5,900 feet) above mean sea level	Not expected to occur. This species occurs in desert habitats further east and northeast in the Mojave and Colorado deserts (Nafis 2018).
Thamnophis hammondii	two-striped gartersnake	None/SSC/ Covered	Group 1	Streams, creeks, pools, streams with rocky beds, ponds, lakes, vernal pools	Not expected to occur due to lack of perennial streams or other water sources where this species is found.
Thamnophis sirtalis ssp. (Coastal plain from Ventura Co. to San Diego Co., from sea level to about 850 m.)	south coast garter snake	None/SSC/None	Group 2	Marsh and upland habitats near permanent water and riparian vegetation	Not expected to occur. This subspecies occurs from sea level to approximately 850 meters (2,788 feet) and the project site is above 3,600 feet.

	Common	Status (Federal/State/Sa n Diego MSCP East County	San Diego		
Scientific Name	Name	(Draft))	County	Habitat	Potential to Occur
Uma notata	Colorado	None/SSC/	Group 1	Wind-blown sand dunes, dry lakebeds,	Not expected to occur. This species occurs in the
	Desert fringe-	Covered		sandy beaches, riverbanks, desert	Colorado Desert in desert dune habitat further
	toed lizard			washes, and sparse desert scrub	east from the project site (Nafis 2018).

Federal

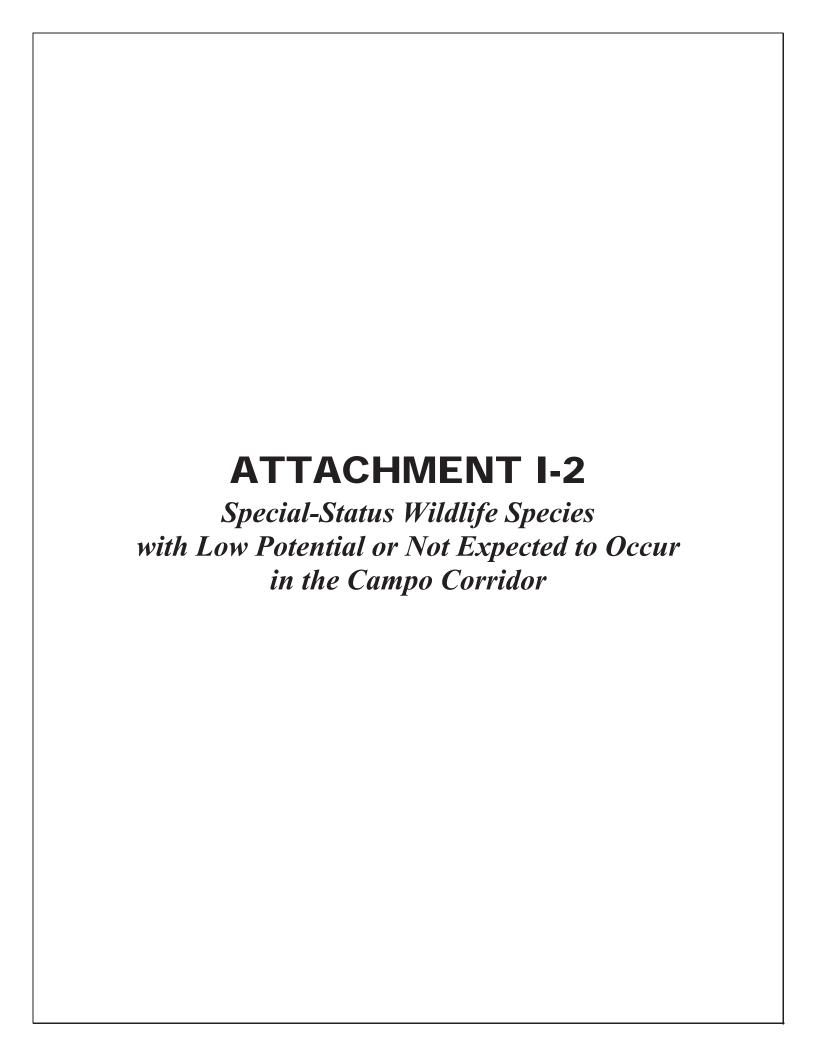
BCC = Bird of Conservation Concern

FE = Federally Endangered

State

FP = Fully Protected SSC = State Species of Concern

WL = Watch List



APPENDIX I-2 Special-Status Wildlife Species with Low Potential or Not Expected to Occur in the Campo Corridor

Scientific Name	Common Name	Status (Federal/State/ San Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
		(= : 3:: 4))	3 3 3)	Amphibians	
Anaxyrus californicus	arroyo toad	FE/SSC/Covered	Group 1	Semi-arid areas near washes, sandy riverbanks, riparian areas, palm oasis, Joshua tree, mixed chaparral and sagebrush; stream channels for breeding (typically third order); adjacent stream terraces and uplands for foraging and wintering	Low potential to occur. There are no suitable perennial washes or stream channels for breeding present. The closest known arroyo toad occurrences are located approximately 5.5 miles west of the study area in the Cottonwood Creek area (USFWS 2018), a different watershed. There are no records of arroyo toad east of this location (USFWS 2018; CDFW 2018a). Surveys conducted for the 2010 BSA were negative (AECOM 2012).
Batrachoseps major aridus	desert slender salamander	FE/SE/Covered	Group 1	Barren, palm oasis, desert wash, and desert scrub	Not expected to occur. Does not occur in vicinity; the closest records are from the Santa Rosa Mountains to the north (CDFW 2018).
Ensatina klauberi	large-blotched salamander	None/WL/ Covered	Group 1	Moist and shaded evergreen and deciduous woodlands	Low potential to occur. This species occurs in the Peninsular Ranges; however, there is no suitable moist evergreen and deciduous woodlands present.
Rana draytonii	California red- legged frog	FT/SSC/Covered	Group 1	Lowland streams, wetlands, riparian woodlands, livestock ponds; dense, shrubby or emergent vegetation associated with deep, still or slow-moving water; uses adjacent uplands	Not expected to occur. This species has not been documented in the vicinity (CDFW 2018) and there is no suitable habitat on site; outside of currently known range.
Rana muscosa	mountain yellow-legged frog	FE/SE, WL/Covered	Group 1	Lakes, ponds, meadow streams, isolated pools, and open riverbanks; rocky canyons in narrow canyons and in chaparral	Not expected to occur. Does not occur in vicinity; the closest record is in Doane Valley in Palomar Mountain in 1975 (CDFW 2018).
Taricha torosa (Monterey Co. south only)	California newt	None/SSC/ Covered	Group 2	Wet forests, oak forests, chaparral, and rolling grassland	Not expected to occur. Does not occur in vicinity (CDFW 2018).
			T -	Birds	
Accipiter striatus (nesting)	sharp-shinned hawk	None/WL/None	Group 1	Nests in coniferous forests, ponderosa pine, black oak, riparian deciduous,	Sharp-shinned hawks do not nest in San Diego County (Unitt 2004). This species could occur

Scientific Name	Common Name	Status (Federal/State/ San Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
				mixed conifer, Jeffrey pine; winters in lowland woodlands and other habitats	during winter or migration and forage on site, and has been observed on site (AECOM 2012) and by Dudek in 2017.
Aechmophorus occidentalis	western grebe	None/None/None	Group 1	Winters in sheltered bays or estuaries on the coast and on large freshwater lakes, rarely on rivers.	Not expected to occur. Does not occur in vicinity (CDFW 2018) and there is no suitable habitat on site.
Ammodramus savannarum (nesting)	grasshopper sparrow	None/SSC/ Covered	Group 1	Nests and forages in moderately open grassland with tall forbs or scattered shrubs used for perches	Not expected to occur. Does not occur in vicinity (CDFW 2018; Unitt 2004).
Anas strepera	gadwall	None/None/None	Group 2	Interior valleys, wetlands, ponds, and streams. Feeds and rests in freshwater lacustrine and emergent habitats, and to a lesser extent, estuarine and saline emergent habitats, and nests in nearby herbaceous and cropland habitats. Common in Central Valley and less common in Coast Range foothills of central and Southern California. Locally common in Imperial Valley and along Colorado River, October to March. Breeds on northeastern plateau and east of Sierra Nevada.	Low potential to occur due to lack of suitable habitat on site.
Anser caerulescens	snow goose	None/None/None	Group 2	Fresh emergent wetlands, adjacent lacustrine waters, and nearby wet croplands, pastures, meadows, and grasslands. Occasionally found in saline (brackish) emergent wetlands and adjacent estuarine waters. Found primarily in Central Valley; less common southward in the interior but abundant in Imperial Valley and locally common along Colorado River. Found regularly only in Southern California along Coast	Not expected to occur. Snow geese are a rare winter visitor to San Diego County and have not been recorded in the vicinity (Unitt 2004; CDFW 2018).



Scientific Name	Common Name	Status (Federal/State/ San Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
				Ranges and immediate coast from mid- November to February.	
Antigone canadensis canadensis (wintering)	lesser sandhill crane	None/SSC/None	Group 2	Winter foraging in cropland, grazed and mowed grassland, pasture, alfalfa fields, and shallow wetlands; roosting sites are flooded and support several inches of water	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Antigone canadensis tabida (nesting & wintering)	greater sandhill crane	None/ST, FP/None	Group 2	Winter foraging in cropland, grazed and mowed grassland, pasture, alfalfa fields, and shallow wetlands; roosting sites are flooded and support several inches of water	Not expected to occur. This species is rarely documented in San Diego County (Unitt 2004).
Ardea herodias (nesting colony)	great blue heron	None/None/None	Group 2	Nests in large trees or snags; forages in wetlands, water bodies, watercourses, and opportunistically in uplands, including pasture and croplands	Not expected to nest on site; the project site is located outside of known breeding areas in San Diego County (Unitt 2004); however, it was observed on site.
Asio flammeus (nesting)	short-eared owl	None/SSC/None	Group 2	Grassland, prairies, dunes, meadows, irrigated lands, and saline and freshwater emergent wetlands	Not expected to occur. Short-eared owl primarily a winter visitor in San Diego County and has not been recorded in the vicinity (Unitt 2004).
Athene cunicularia (burrow sites & some wintering sites)	burrowing owl	BCC/SSC/ Covered	Group 1	Nests and forages in grassland, open scrub, and agriculture, particularly with ground squirrel burrows	Not expected to occur. Burrowing owl are not known to occur between the Jacumba Valley and Otay areas in San Diego County.
Aythya americana (nesting)	redhead	None/SSC/None	Group 2	Nests in deep (>3 ft) permanent or semi- permanent wetlands of at least 1 acre; 75% open water; emergent tules, Scirpus spp., and Typha spp. 3 feet in height; winters in coastal estuaries and large, deep ponds, lakes, and reservoirs of the interior	Not expected to occur. Does not occur in vicinity (CDFW 2018) and there is no suitable habitat on site.
Branta bernicla (wintering & staging)	brant	None/SSC	None	Nesting habitat includes the edges of saltmarshes in the low Arctic region; migratory habitats include shallow marine lakes; winter range includes	Not expected to nest on site. Observed flying over site (AECOM 2012).



Scientific Name	Common Name	Status (Federal/State/ San Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
				intertidal mudflats in shallow marine waters with abundant eelgrass and/or green algae	
Branta canadensis	Canada goose	None/None/None	Group 2	Lakes, rivers, ponds, and other bodies of water; yards, park lawns, and agricultural fields	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Bucephala islandica (nesting)	Barrow's goldeneye	None/SSC/None	Group 2	Winters in lagoons, bays, and estuaries in coastal areas, and riverine waters, lakes, and reservoirs in the interior	Not expected to occur. Does not occur in vicinity (CDFW 2018) and there is no suitable habitat on site.
Buteo regalis (wintering)	ferruginous hawk	BCC/WL/Covered	Group 1	Winters and forages in open, dry country, grasslands, open fields, agriculture	Low potential to occur during the winter. Ferruginous hawk is an uncommon winter visitor in San Diego County, but it has been on site (AECOM 2012) and towards Jacumba Valley (Unitt 2004). There is suitable foraging habitat in the grassland and open scrub habitat.
Buteo swainsoni (nesting)	Swainson's hawk	BCC/ST/Covered	Group 1	Nests in open woodland and savanna, riparian, and in isolated large trees; forages in nearby grasslands and agricultural areas such as wheat and alfalfa fields and pasture	Low potential to nest. Swainson's hawks are uncommon in San Diego County; however, two Swainson's hawks were detected during bird count surveys (AECOM 2012). Due to lack of additional observations in the area (Unitt 2004; CDFW 2018), this species has low potential to nest on site.
Butorides virescens	green heron	None/None/None	Group 2	Nests and roosts in valley foothill and desert riparian habitats; feeds in fresh emergent wetland, lacustrine, slow-moving riverine habitats. Resident in foothills and lowlands throughout California; common August to March in southern coastal ranges, in summer along the Colorado River, and found all year at the Salton Sea.	Low potential to occur. There is no suitable habitat on site and this species has not been confirmed nesting in the vicinity (Unitt 2004).
Campylorhynchus brunneicapillus sandiegensis (San	coastal cactus wren	BCC/SSC/ Covered	Group 1	Southern cactus scrub patches	Not expected to occur. San Diego cactus wren rely on cactus thickets at elevations below 1,500 feet and the species in the Boulevard area are considered the



Scientific Name	Common Name	Status (Federal/State/ San Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
Diego & Orange Counties only)					desert subspecies (Unitt 2004). The site is above this elevation range and there are no large patches of <i>Cylindropuntia</i> spp. or <i>Opuntia</i> spp. on site; however, there are scattered cacti throughout the scrub and chaparral. <i>C. brunneicapillus</i> (desert subspecies) was documented on site and on the Campo Indian Reservation (AECOM 2012).
Cerorhinca monocerata (nesting colony)	rhinoceros auklet	None/WL/None	Group 2	Marine pelagic and subtidal habitats	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Chaetura vauxi (nesting)	Vaux's swift	None/SSC	None	Late-stage conifer forest and mixed- conifer/deciduous forest; nests in redwood (<i>Sequoia sempervirens</i>), Douglas-fir (<i>Pseudotsuga</i> spp.), and other conifers, and occasionally buildings and chimneys	Not expected to nest on site due to lack of suitable habitat. Observed flying over site (AECOM 2012).
Charadrius alexandrinus nivosus (nesting)	western snowy plover	FT, BCC/SSC/None	Group 1	On coasts nests on sandy marine and estuarine shores; in the interior nests on sandy, barren or sparsely vegetated flats near saline or alkaline lakes, reservoirs, and ponds	Not expected to occur. Does not occur in vicinity (CDFW 2018) and there is no suitable habitat on site.
Charadrius montanus (wintering)	mountain plover	BCC/SSC/None	Group 2	Winters in shortgrass prairies, plowed fields, open sagebrush, and sandy deserts	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Chlidonias niger (nesting colony)	black tern	None/SSC/None	Group 2	Freshwater marsh with emergent vegetation; in the Central Valley primarily nests and forages in rice fields and other flooded agricultural fields with weeds and other residual aquatic vegetation	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Coccyzus americanus occidentalis (nesting)	western yellow-billed cuckoo	FT, BCC/SE/Covered	Group 1	Nests in dense, wide riparian woodlands and forest with well-developed understories	Not expected to occur. Does not occur in vicinity (CDFW 2018) and there are no dense wide riparian areas on site.



Scientific Name	Common Name	Status (Federal/State/ San Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
Contopus cooperi (nesting)	olive-sided flycatcher	BCC/SSC/None	Group 2	Nests in mixed-conifer, montane hardwood–conifer, Douglas-fir, redwood, red fir, and lodgepole pine habitats; usually close to water	This species was observed flying over the site (AECOM 2012).
Cypseloides niger (nesting)	black swift	BCC/SSC/None	Group 2	Nests in moist crevices, caves, and cliffs behind or adjacent to waterfalls in deep canyons; forages over a wide range of habitats	Not expected to nest on site due to lack of suitable nesting habitat. This species was observed flying over the site (AECOM 2012).
Dendrocygna bicolor (nesting)	fulvous whistling-duck	None/SSC/None	Group 2	Nests in freshwater wetlands, especially shallow impoundments managed for rice production and temporarily flooded grasslands; also nests in pastures, haylands, and small grain fields adjacent to rice fields	Not expected to occur. Does not occur in vicinity (CDFW 2018) and there is no suitable habitat on site.
Egretta rufescens	reddish egret	None/None/None	Group 2	Freshwater marsh with emergent vegetation; in the Central Valley primarily nests and forages in rice fields and other flooded agricultural fields with weeds and other residual aquatic vegetation	Not expected to occur. Does not occur in vicinity (CDFW 2018; Unitt 2004).
Elanus leucurus (nesting)	white-tailed kite	None/FP/Covered	Group 1	Nests in woodland, riparian, and individual trees near open lands; forages opportunistically in grassland, meadows, scrubs, agriculture, emergent wetland, savanna, and disturbed lands	Low potential to nest on site. It was documented on site (AECOM 2012). This species likely occurs during migration or winter. This species is more commonly found along the coastal slope in San Diego County, and has not been documented nesting in the vicinity (Unitt 2004; CDFW 2018). It was observed in McCain Valley in the winter (Unitt 2004).
Empidonax traillii extimus (nesting)	southwestern willow flycatcher	FE/SE/Covered	Group 1	Nests in dense riparian habitats along streams, reservoirs, or wetlands; uses variety of riparian and shrubland habitats during migration	Does not occur in vicinity (CDFW 2018a), and focused protocol surveys conducted in 2010 for this species were negative. The closest known CNDDB occurrence is 27.8 miles northwest of the project site (CDFW 2018a). There is marginal riparian habitat for this species, which prefers habitat along perennial streams and rivers.



Scientific Name	Common Name	Status (Federal/State/ San Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
Falco peregrinus anatum (nesting)	American peregrine falcon	FDL, BCC/SDL, FP/None	Group 1	Nests on cliffs, buildings, and bridges; forages in wetlands, riparian, meadows, croplands, especially where waterfowl are present	Not expected to nest. Peregrine falcons are not known to nest in the vicinity; they are documented along the coast in San Diego County (CDFW 2018; Unitt 2004). This species was observed flying over the site.
Fratercula cirrhata (nesting colony)	tufted puffin	None/SSC/None	Group 2	Nests on offshore rocks and islands free of mammalian predators, either in earthen burrows or crevices on steep rocky slopes	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Gavia immer (nesting)	common loon	None/SSC/None	Group 2	Extirpated as a breeder from California; winters in coastal waters such as bays, channels, coves, and inlets; also winters inland at large, deep lakes and reservoirs	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Gymnogyps californianus	California condor	FE/SE, FP/None	None	Forages on open terrain, foothill grassland, and oak savannah; nests in cavities on steep rocks or burned hallos of old-growth conifers and giant sequoia trees	Very Low potential to forage and not expected to nest. There is potential foraging habitat; however, no suitable nesting vegetation present and the only records are at least 15 miles away from the site from 2017 (other years are further from the site) (USFWS 2018).
Icteria virens (nesting)	yellow- breasted chat	None/SSC/None	Group 1	Nests and forages in dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush	Low potential to occur. There is no suitable dense riparian woodland present and there are limited records of this species in southeastern San Diego County (Unitt 2004).
Ixobrychus exilis (nesting)	least bittern	BCC/SSC/ Covered	Group 2	Nests in freshwater and brackish marshes with dense, tall growth of aquatic and semi-aquatic vegetation	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Junco hyemalis caniceps (nesting)	gray-headed junco	None/WL/None	Group 2	Nests and forages in pine and juniper- pine forests	Not expected to occur. This species is not documented in vicinity (CDFW 2018; Unitt 2004). Gray-headed junco is rare along the coast and rare to uncommon in the mountains (Unitt 2004).
Larus californicus (nesting colony)	California gull	None/WL/None	Group 2	Nests in alkali and freshwater lacustrine habitats; abundant in coastal and interior lowlands during non-nesting period	Not expected to nest. There are no nesting colonies in the vicinity (CDFW 2018; Unitt 2004). It was observed on site (AECOM 2012).



Scientific Name	Common Name	Status (Federal/State/ San Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
Laterallus jamaicensis coturniculus	California black rail	BCC/ST, FP/None	Group 2	Tidal marshes, shallow freshwater margins, wet meadows, and flooded grassy vegetation; suitable habitats are often supplied by canal leakage in Sierra Nevada foothill populations	Not expected to occur. Does not occur in vicinity (CDFW 2018) and there is no suitable habitat on site. The last known nesting black rail in San Diego County was in 1954 (Unitt 2004).
Leucophaeus atricilla (nesting colony)	laughing gull	None/WL/None	Group 2	Coastal saltmarsh, bays, and estuaries	Not expected to occur. Does not occur in vicinity (CDFW 2018; Unitt 2004).
Melanerpes lewis (nesting)	Lewis's woodpecker	BCC/None/None	Group 1	Winters in open oak woodland and savanna; nests in open ponderosa pine forest and logged or burned pine forest	Lewis' woodpecker does not nest in San Diego County, but is a winter visitor (Unitt 2004). This species was observed on site.
Mycteria americana	wood stork	None/SSC/None	Group 2	Nests in freshwater and marine- estuarine forested habitats; forages in natural and artificial wetlands; roosts in trees, usually over water	Not expected to occur. This species is a very rare visitor to San Diego County (Unitt 2004); and the site does not support ponded water to support foraging.
Numenius americanus (nesting)	long-billed curlew	BCC/WL/None	Group 2	Nests in grazed, mixed grass, and short- grass prairies; localized nesting along the California coast; winters and forages in coastal estuaries, mudflats, open grassland, and cropland	Not expected to occur. Long-billed curlews are winter visitors in San Diego County, and the closest migration record is Lake Morena, southwest of the project site (Unitt 2004; CDFW 2018).
Oceanodroma furcata (nesting colony)	fork-tailed storm-petrel	None/SSC/None	Group 2	Offshore islands with restricted access and free of mammalian predators; nesting habitat varies across islands from natural crevices in talus slopes to earthen burrows dug by themselves or other species	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Oceanodroma homochroa (nesting colony)	ashy storm- petrel	BCC/SSC/None	Group 2	Nests on rocky offshore islands on talus slopes, rock walls, sea caves, cliffs, and under piles of driftwood; they do not excavate their own nesting burrows	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Oceanodroma melania (nesting colony)	black storm- petrel	None/SSC/None	Group 2	Nests on small rocky islands or talus slopes of larger islands free of mammalian predators; occurs on land only to breed	Not expected to occur. Does not occur in vicinity (CDFW 2018).



Scientific Name	Common Name	Status (Federal/State/ San Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
Oreothlypis luciae (nesting)	Lucy's warbler	BCC/SSC/ Covered	Group 1	Nests and forages in desert wash and desert riparian habitats, especially dominated by mesquite, but also in other shrubs and tamarisk	Not expected to occur. Does not occur in vicinity (CDFW 2018; Unitt 2004). Breeding has only been documented in the Borrego Valley (Unitt 2004).
Pandion haliaetus (nesting)	osprey	None/WL/None	Group 1	Large waters (lakes, reservoirs, rivers) supporting fish; usually near forest habitats, but widely observed along the coast	Not expected to nest on site due to lack of suitable habitat (i.e., bodies of water). It has been documented as presumed migrants in the vicinity (Unitt 2004), and was recorded onsite (AECOM 2012).
Passerculus sandwichensis beldingi	Belding's savannah sparrow	None/SE/None	Group 1	Nests and forages in coastal saltmarsh dominated by pickleweed (Salicornia spp.)	Not expected to nest on site. Does not occur in vicinity as nesting is documented only along the coast in San Diego County (CDFW 2018; Unitt 2004).
Passerculus sandwichensis rostratus (wintering)	large-billed savannah sparrow	None/SSC/None	Group 2	Nests and forages in open, low saltmarsh vegetation, including low halophytic scrub	Low potential to occur in the marsh habitat in portions of Tule Creek. It is a rare winter visitor in San Diego County (Unitt 2004).
Pelecanus erythrorhynchos (nesting colony)	American white pelican	None/SSC/None	Group 2	Nests colonially on sandy, earthen, or rocky substrates on isolated islands in freshwater lakes; minimal disturbance from predators; access to foraging areas on inland marshes, lakes, or rivers; winters on shallow coastal bays, inlets, and estuaries	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Pelecanus occidentalis californicus (nesting colonies & communal roosts)	California brown pelican	FDL/SDL, FP/None	Group 2	Forages in warm coastal marine and estuarine environments; in California, nests on dry, rocky offshore islands	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Phalacrocorax auritus (nesting colony)	double- crested cormorant	None/WL/None	Group 2	Nests in riparian trees near ponds, lakes, artificial impoundments, slow- moving rivers, lagoons, estuaries, and open coastlines; winter habitat includes lakes, rivers, and coastal areas	Not expected to occur. Does not occur in vicinity (CDFW 2018) and there is no suitable habitat on site.



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Piranga rubra (nesting)	summer tanager	None/SSC/ Covered	Group 2	Nests and forages in mature desert riparian habitats dominated by cottonwoods and willows	Not expected to occur. Does not occur in vicinity (CDFW 2018; Unitt 2004).
Plegadis chihi (nesting colony)	white-faced ibis	None/WL/None	Group 1	Nests in shallow marshes with areas of emergent vegetation; winter foraging in shallow lacustrine waters, flooded agricultural fields, muddy ground of wet meadows, marshes, ponds, lakes, rivers, flooded fields, and estuaries	Not expected to occur. Does not occur in vicinity (CDFW 2018; Unitt 2004).
Polioptila californica californica	coastal California gnatcatcher	FT/SSC/Covered	Group 1	Nests and forages in various sage scrub communities, often dominated by California sagebrush and buckwheat; generally avoids nesting in areas with a slope of greater than 40%; majority of nesting at less than 1,000 feet above mean sea level	Not expected to occur. Outside of range; this species has not been documented in San Diego at elevations higher than 2,400 feet (Unitt 2004).
Progne subis (nesting)	purple martin	None/SSC/ Covered	Group 1	Nests and forages in woodland habitats including riparian, coniferous, and valley foothill and montane woodlands; in the Sacramento region often nests in weep holes under elevated freeways	Not expected to occur. Its distribution in San Diego County is limited to the mountains and European starlings have taken over much of their nesting habitat (Unitt 2004).
Pyrocephalus rubinus (nesting)	vermilion flycatcher	None/SSC/ Covered	Group 1	Nests in riparian woodlands, riparian scrub, and freshwater marshes; typical desert riparian with cottonwood, willow, mesquite adjacent to irrigated fields, ditches, or pastures	Low potential to occur. Only a single male has been recorded in the vicinity (McCain Valley); no nesting has been documented in the area (Unitt 2004).
Rallus obsoletus levipes	Ridgway's rail	FE/SE, FP/None	Group 1	Coastal wetlands, brackish areas, coastal saline emergent wetlands	Not expected to occur. Does not occur in vicinity and there is no suitable habitat (CDFW 2018).
Riparia riparia (nesting)	bank swallow	None/ST/None	Group 1	Nests in riparian, lacustrine, and coastal areas with vertical banks, bluffs, and cliffs with sandy soils; open country and water during migration	No potential to nest on site due lack of nesting habitat and there are currently no known nesting colonies in San Diego County (Unitt 2004). This species was recorded onsite (AECOM 2012) and has potential to forage on site during migration.



Scientific Name	Common Name	Status (Federal/State/ San Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
Rynchops niger (nesting colony)	black skimmer	BCC/SSC/None	Group 1	Nests on barrier beaches, shell banks, spoil islands, and saltmarsh; forages over open water; roosts on sandy beaches and gravel bars	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Sternula antillarum browni (nesting colony)	California least tern	FE/SE, FP/None	Group 1	Forages in shallow estuaries and lagoons; nests on sandy beaches or exposed tidal flats	Not expected to occur. Does not occur in vicinity and there is no suitable habitat (CDFW 2018).
Strix occidentalis occidentalis	California spotted owl	BCC/SSC/ Covered	Group 1	Nests and forages in dense, old-growth, multi-layered mixed-conifer, redwood, and Douglas-fir habitats	Not expected to occur. This species typically nests at elevations above 2,500 feet where oak woodlands are dusky-footed woodrats are common (Unitt 2004). The closest known breeding location is in the Laguna Mountains, approximately, 7 miles northwest of the project site (Unitt 2004).
Synthliboramphus scrippsi (nesting colony)	Scripps's murrelet	FC, BCC/ST/None	Group 2	Nests on steep sea slopes, canyons, and cliffs with sparse vegetation	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Thalasseus elegans (nesting colony)	elegant tern	None/WL/None	Group 1	Inshore coastal waters, bays, estuaries, and harbors; forages over open water	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Toxostoma bendirei	Bendire's thrasher	BCC/SSC/None	Group 2	Nests and forages in desert succulent shrub and Joshua tree habitat in Mojave Desert; nests in yucca, cholla, and other thorny scrubs or small trees	Not expected to occur. Outside of range; this species is largely restricted to the Mojave Desert and records in San Diego County are limited (Unitt 2004).
Toxostoma crissale	Crissal thrasher	None/SSC/ Covered	Group 1	Nests and forages in desert riparian and desert wash; dense thickets of sagebrush and other shrubs such as mesquite, iron catclaw acacia, and arrowweed willow within juniper and pinyon–juniper woodlands	Not expected to occur. Does not occur in vicinity (CDFW 2018); this species occurs in the Borrego Valley (Unitt 2004).
Toxostoma lecontei	LeConte's thrasher	BCC/SSC/ Covered	Group 2	Nests and forages in desert wash, desert scrub, alkali desert scrub, desert succulent, and Joshua tree habitats; nests in spiny shrubs or cactus	Not expected to occur. Does not occur in vicinity (CDFW 2018).



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Vireo bellii pusillus (nesting)	least Bell's vireo	FE/SE/Covered	Group 1	Nests and forages in low, dense riparian thickets along water or along dry parts of intermittent streams; forages in riparian and adjacent shrubland late in nesting season	Focused protocol surveys conducted in 2010 for this species were negative. The closest known CNDDB occurrence is 6 miles west of the project site (CDFW 2018a). There is marginal riparian habitat for this species, which prefers habitat along perennial streams and rivers.
				Fishes	
Cyprinodon macularius	desert pupfish	FE/SE/None	Group 2	Desert springs, small streams, and marshes below 1,515 meters (5,000 feet) above mean sea level; tolerates high salinities, high water temperatures, and low dissolved-oxygen concentrations	Not expected to occur. There are no perennial water sources on the project site that could support this species.
Eucyclogobius newberryi	tidewater goby	FE/SSC/None	Group 1	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County, to the mouth of the Smith River	Not expected to occur. Does not occur in vicinity (CDFW 2018) and there are no perennial water sources on the project site that could support this species.
Gasterosteus aculeatus williamsoni	unarmored threespine stickleback	FE/SE, FP/None	Group 2	Slow-moving and backwater areas	Not expected to occur. There are no perennial water sources on the project site that could support this species, and it is not documented in the vicinity (CDFW 2018).
Gila orcuttii	arroyo chub	None/SSC/None	Group 1	Warm, fluctuating streams with slow- moving or backwater sections of warm to cool streams at depths >40 centimeters (16 inches); substrates of sand or mud	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Oncorhynchus mykiss irideus	southern steelhead - southern California DPS	FE/None/None	Group 1	Clean, clear, cool, well-oxygenated streams; needs relatively deep pools in migration and gravelly substrate to spawn	Not expected to occur. There are no perennial water sources on the project site that could support this species, and it is not documented in the vicinity (CDFW 2018).



Scientific Name	Common Name	Status (Federal/State/ San Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
		(1	Invertebrates	
Ariolimax columbianus stramineus	Palomar banana slug	None/None/ Covered	Group 2	Moist forests; dark, damp habitats, such as under logs or other decomposing material	Not expected to occur. Does not occur in vicinity (CDFW 2018); the closest population is located in the Palomar Mountains.
Branchinecta sandiegonensis	San Diego fairy shrimp	FE/None/None	Group 1	Vernal pools, non-vegetated ephemeral pools	Not expected to occur. Does not occur in vicinity; this species' range is much further west in San Diego County (USFWS 2018; CDFW 2018).
Brennania belkini	Belkin's dune tabanid fly	None/None/None	Group 2	Inhabits coastal sand dunes of Southern California	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Callophrys thornei	Thorne's hairstreak	None/None/None	Group 1	Interior cypress woodland dominated by host plant <i>Hesperocyparis forbesii</i> (Tecate cypress)	Not expected to occur. No Tecate cypress were observed on site.
Cicindela gabbii	western tidal- flat tiger beetle	None/None/None	Group 2	Inhabits estuaries and mudflats along the coast of Southern California	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Cicindela hirticollis gravida	sandy beach tiger beetle	None/None/None	Group 2	Inhabits areas adjacent to non-brackish water along the coast of California from San Francisco Bay to northern Mexico	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Cicindela latesignata latesignata	western beach tiger beetle	None/None/None	Group 2	Mudflats and beaches in coastal Southern California	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Cicindela senilis frosti	senile tiger beetle	None/None/None	Group 2	Inhabits marine shoreline, from Central California coast south to saltmarshes of San Diego; also found at Lake Elsinore	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Cicindela trifasciata sigmoidea	Mudflat tiger beetle	None/None/None	Group 2	Marshes along coast and edges of marshes and rivers.	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Cincindela latesignata obliviosa	Oblivious tiger beetle	None/None/None	Group 2	Inhabited the Southern California coastline, from La Jolla north to the Orange County line. Occupied saline mudflats and moist sandy spots in estuaries of small streams in the lower zone. Has not been observed in 20 years. The oblivious tiger beetle (C. I.	Not expected to occur. Does not occur in vicinity (CDFW 2018).



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				obliviosa) is no longer the accepted name for this species (ITIS 2016).	
Coelus globosus	globose dune beetle	None/None/None	Group 1	Inhabitant of coastal sand dune habitat; erratically distributed from Ten Mile Creek in Mendocino County south to Ensenada, Mexico	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Danaus plexippus	monarch	None/None/None	Group 2	Wind-protected tree groves with nectar sources and nearby water sources	Low potential to occur. This species was not observed during focused surveys for Quino checkerspot butterfly. Not suitable colonial roosting areas present within the Project site.
Euphyes vestris harbisoni	Harbison dun skipper	None/None/ Covered	Group 1	Oak riparian drainages and adjacent seeps supporting host plant Carex spissa	Not expected to occur. This species has a very limited distribution and it is unlikely to occur based on estimated range of this species (Marschalek and Deutschman 2015).
Helminthoglypta traski coelata	Peninsular Range shoulderband snail	None/None/ Covered	Group 2	Wet habitats	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Linderiella occidentalis	California linderiella	None/None/None	Group 1	Cool soft-water vernal pools in grasslands below 1,000 feet above mean sea level	Not expected to occur. Does not occur at elevations above 1,000 feet.
Lycaena hermes	Hermes copper	FC/None/Covered	Group 1	Mixed woodlands, chaparral, and coastal scrub	Not expected to occur. Known ranges for this species are further west towards Descanso, Jamul, and Potrero (CDFW 2018). Additionally, no <i>Rhamnus crocea</i> , this species' host plant, were observed on site.
Megathymus yuccae harbisoni	Coastal giant skipper	None/None/None	Group 2	Coastal dunes, open yucca flats, desert canyons, open woodland, grassland, and old fields. Host plant is Yucca schidigera. Record from eastern San Diego County near Scissors Crossing, Anza-Borrego Desert State Park.	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Panoquina errans	wandering skipper	None/None/None	Group 1	Saltmarsh	Not expected to occur. Does not occur in vicinity (CDFW 2018).



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Papilio multiculdata	Two-tailed swallowtail	None/None/None	Group 1	Foothill slopes and canyons, moist valleys, streamsides, woodlands, parks, roadsides, and urban settings. Host plants include Fraxinus, Ptelea, and Prunus species (Butterflies and Moths of North America 2016).	Low potential to occur. There are <i>Prunus</i> spp. recorded on site.; however, this conspicuous species was not observed during protocol butterfly species. Flight season for two-tailed swallowtail is March through September (Shiraiwa 2009), and focused butterfly surveys were conducted between March and June 2018.
Phobetus robinsoni	Robinson's rain beetle	None/None/None	Group 2	Known from two locations in Orange County and only known from Scissors Crossing in San Diego County (43 FR 35636 35643).	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Plebejus saepiolus hilda	Hilda greenish blue	None/None/None	Group 1	At species level: bogs, stream edges, open fields, meadows, open forests, and roadsides. Host plants include species of Trifolium (Butterflies and Moths of North America 2016).	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Pseudocopaeodes eunus eunus	alkali skipper	None/None/ Covered	Group 1	Grassy spots on alkali flats; playa/salt flats	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Pyrgus ruralis lagunae	Laguna Mountains skipper	FE/None/Covered	Group 1	Restricted to montane meadows of Laguna Mountains and Mount Palomar	Not expected to occur. This species' range is restricted to the Laguna Mountains and Mount Palomar. The closest recorded occurrence is approximately 10 miles northeast of the project site (CDFW 2018; USFWS 2018).
Streptocephalus woottoni	Riverside fairy shrimp	FE/None/None	Group 1	Vernal pools, non-vegetated ephemeral pools	Not expected to occur. Does not occur in vicinity; this species' range is much further west in San Diego County (USFWS 2018; CDFW 2018).
Trigonoscuta blaisdelli	Blaisdell trigonoscuta weevil	None/None/None	Group 2	Trigonoscuta sp.: Coastal, desert, or inland sand dunes; wide variety of plant types used; the larvae feed on the roots and the adults on the leaves.	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Tryonia imitator	mimic tryonia (=California brackishwater snail)	None/None/None	Group 2	Inhabits coastal lagoons, estuaries, and saltmarshes, from Sonoma County south to San Diego County	Not expected to occur. Does not occur in vicinity (CDFW 2018).



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				Mammals	
Bassariscus astutus	ringtail	None/FP/Covered	Group 2	Mixed forests and shrublands near rocky areas or riparian habitats; forages near water and is seldom found more than 1 kilometer (0.62 mile) from a water source	Low potential to occur. Does not occur in vicinity (CDFW 2018) and there is marginal habitat for this species on site.
Chaetodipus fallax fallax	northwestern San Diego pocket mouse	None/SSC/None	Group 2	Coastal scrub, mixed chaparral, sagebrush, desert wash, desert scrub, desert succulent shrub, pinyon–juniper, and annual grassland	Low potential to occur. There are limited records for this species in southeast San Diego County (Tremor et al. 2017).
Chaetodipus fallax pallidus	pallid San Diego pocket mouse	None/SSC/None	Group 2	Desert wash, desert scrub, desert succulent scrub, and pinyon–juniper woodland	Not expected to occur. No suitable vegetation present.
Choeronycteris mexicana	Mexican long- tongued bat	None/SSC/None	Group 2	Desert and montane riparian, desert succulent scrub, desert scrub, and pinyon–juniper woodland; roosts in caves, mines, and buildings	Not expected to occur. This species occurs further west along the coast and immediately inland (Tremor et al., 2017; CDFW 2018). It was not detected during the 2011/2012 acoustical bat surveys on site or on the Campo Indian Reservation (AECOM 2012).
Dipodomys stephensi	Stephens' kangaroo rat	FE/ST/Covered	Group 1	Annual and perennial grassland habitats, coastal scrub or sagebrush with sparse canopy cover, or in disturbed areas	Not expected to occur. Does not occur in vicinity; this species has been documented occurring further northwest near Lake Henshaw and the Ramona area (Tremor et al., 2017; USFWS 2018; CDFW 2018).
Euderma maculatum	spotted bat	None/SSC/None	Group 2	Foothills, mountains, desert regions of southern California, including arid deserts, grasslands, and mixed-conifer forests; roosts in rock crevices and cliffs; feeds over water and along washes	Not expected to occur. Records for this species are very limited in San Diego County (Tremor et al., 2017). It was not detected during the 2011/2012 acoustical bat surveys on site or on the Campo Indian Reservation (AECOM 2012).
Lasiurus blossevillii	western red bat	None/SSC/None	Group 2	Forest, woodland, riparian, mesquite bosque, and orchards, including fig, apricot, peach, pear, almond, walnut, and orange; roosts in tree canopy	Low potential to roost on site. There is oak and riparian woodland habitat on site. Potential to forage on site; however, it was not detected during the 2011/2012 acoustical bat surveys on



Scientific Name	Common Name	Status (Federal/State/ San Diego MSCP East County (Draft))	San Diego County	Habitat	Potential to Occur
					site or on the Campo Indian Reservation (AECOM 2012).
Myotis volans	long-legged myotis	None/None/None	Group 2	Primarily coniferous forests, but also seasonally in riparian and desert habitats; roosts in crevices in cliffs, caves, mines, buildings, exfoliating tree bark, and snags	Low potential to roost on site. There are no mines, caves, or buildings present, but some riparian woodland habitat. Records for this species are further north in the Laguna Mountains (Tremor et al. 2017). Potential to forage on site; however, it was not detected during the 2011/2012 acoustical bat surveys on site or on the Campo Indian Reservation (AECOM 2012).
Myotis yumanensis	Yuma myotis	None/None/None	Group 2	Riparian, arid scrublands and deserts, and forests associated with water (streams, rivers, tinajas); roosts in bridges, buildings, cliff crevices, caves, mines, and trees	Low potential to roost on site. There are no mines, caves, or buildings present, but some riparian woodland habitat. No ponded water or lakes present and this species is a water and moth specialist. This species is more commonly found along the coast, but there are records in eastern San Diego County (Tremor et al. 2017) and it was detected during the 2011/2012 acoustical bat surveys on site.
Ovis canadensis nelsoni	Nelson's bighorn sheep	None/FP/None	Group 1	Steep slopes and cliffs, rough and rocky topography, sparse vegetation; also canyons, washes, and alluvial fans	Not expected to occur. Does not occur in vicinity (CDFW 2018).
Ovis canadensis nelsoni pop. 2 DPS	Peninsular bighorn sheep DPS	FE/ST, FP/Covered	None	Dry, rocky, low-elevation desert slopes, canyons, and washes; females near water during lambing season	Not expected to occur. The Reservation is located in the inner-montane zone of San Diego County, west of the desert slopes occupied by this species and approximately 6 miles (9.6 kilometers) from the western edge of the species' known range (CDFW 2018e). The closest CNDDB occurrence is 3.6 miles northeast of the project site within the Jacumba and In-Ko-Pah Mountains in more-suitable habitat (CDFW 2018a). The Reservation lacks the dry, rocky desert habitat preferred by this species.



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Perognathus longimembris brevinasus	Los Angeles pocket mouse	None/SSC/ Covered	Group 2	Lower-elevation grassland, alluvial sage scrub, and coastal scrub	Not expected to occur. There are no records of this subspecies in southeast San Diego County (Tremor et al. 2017).
Perognathus longimembris pacificus	Pacific pocket mouse	FE/SSC/None	Group 1	fine-grained sandy substrates in open coastal strand, coastal dunes, and river alluvium	Not expected to occur. This species occurs along the coast (Tremor et al. 2017).
Puma concolor	cougar	None/None/None	Group 2	Scrubs, chaparral, riparian, woodland, and forest; rests in rocky areas and on cliffs and ledges that provide cover; most abundant in riparian areas and brushy stages of most habitats throughout California, except deserts	High potential to occur. This species was detected on Campo Indian Reservation (AECOM 2012). There is suitable habitat throughout the project site.
				Reptiles	
Actinemys marmorata	western pond turtle	None/SSC/ Covered	Group 1	Slow-moving permanent or intermittent streams, ponds, small lakes, and reservoirs with emergent basking sites; adjacent uplands used for nesting and during winter	Not expected to occur. Does not occur in vicinity (CDFW 2018) and there is no suitable habitat on site.
Aspidoscelis hyperythra	orange- throated whiptail	None/WL/Covere d	Group 2	Low-elevation coastal scrub, chaparral, and valley–foothill hardwood	Low potential to occur. There is suitable scrub and chaparral vegetation present. No known CNDDB occurrences within 5 miles of the project area.
Coleonyx switaki	Switak's banded gecko	None/ST/Covered	Group 2	Rocklands, especially massive rocks and rock formations at the heads of canyons	Not expected to occur. This species occurs near Borrego Springs and south to Baja California (Nafis 2018).
Lampropeltis zonata (pulchra)	California mountain kingsnake (San Diego population)	None/WL/Covere d	Group 2	Habitat generalist found in habitats including conifer forest, oak-pine woodlands, riparian woodland, chaparral, manzanita, and coastal scrub, but mostly linked to mountains.	Low potential to occur. There is marginally suitable oak, chaparral, and scrub vegetation present, but the main range for this species is in the more montane areas to the north.
Phrynosoma mcallii	flat-tailed horned lizard	None/SSC/ Covered	Group 1	Desert washes and flats with sparse low-diversity vegetation cover and sandy soils	Not expected to occur. No suitable vegetation present. The closest known CNDDB occurrence is 3.3 miles northeast of the project area between the Jacumba and In-Ko-Pah Mountains (CDFW 2018).



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Sauromalus ater	common chuckwalla	None/None/ Covered	Group 2	Rock-dwelling, sheltering in rock crevices or under rocks; inhabits rocky flats and hillsides in the Mojave and Colorado Deserts; found in creosote bush habitats; sea level to 1,800 meters (5,900 feet) above mean sea level	Not expected to occur. This species occurs in desert habitats further east and northeast in the Mojave and Colorado deserts (Nafis 2018).
Thamnophis hammondii	two-striped gartersnake	None/SSC/ Covered	Group 1	Streams, creeks, pools, streams with rocky beds, ponds, lakes, vernal pools	Not expected to occur due to lack of perennial streams or other water sources where this species is found.
Thamnophis sirtalis ssp. (Coastal plain from Ventura Co. to San Diego Co., from sea level to about 850 m.)	south coast garter snake	None/SSC/None	Group 2	Marsh and upland habitats near permanent water and riparian vegetation	Not expected to occur. This subspecies occurs from sea level to approximately 850 meters (2,788 feet) and the project site is above 3,600 feet.
Uma notata	Colorado Desert fringe- toed lizard	None/SSC/ Covered	Group 1	Wind-blown sand dunes, dry lakebeds, sandy beaches, riverbanks, desert washes, and sparse desert scrub	Not expected to occur. This species occurs in the Colorado Desert in desert dune habitat further east from the project site (Nafis 2018).

Federal

BCC = Bird of Conservation Concern

FE = Federally Endangered

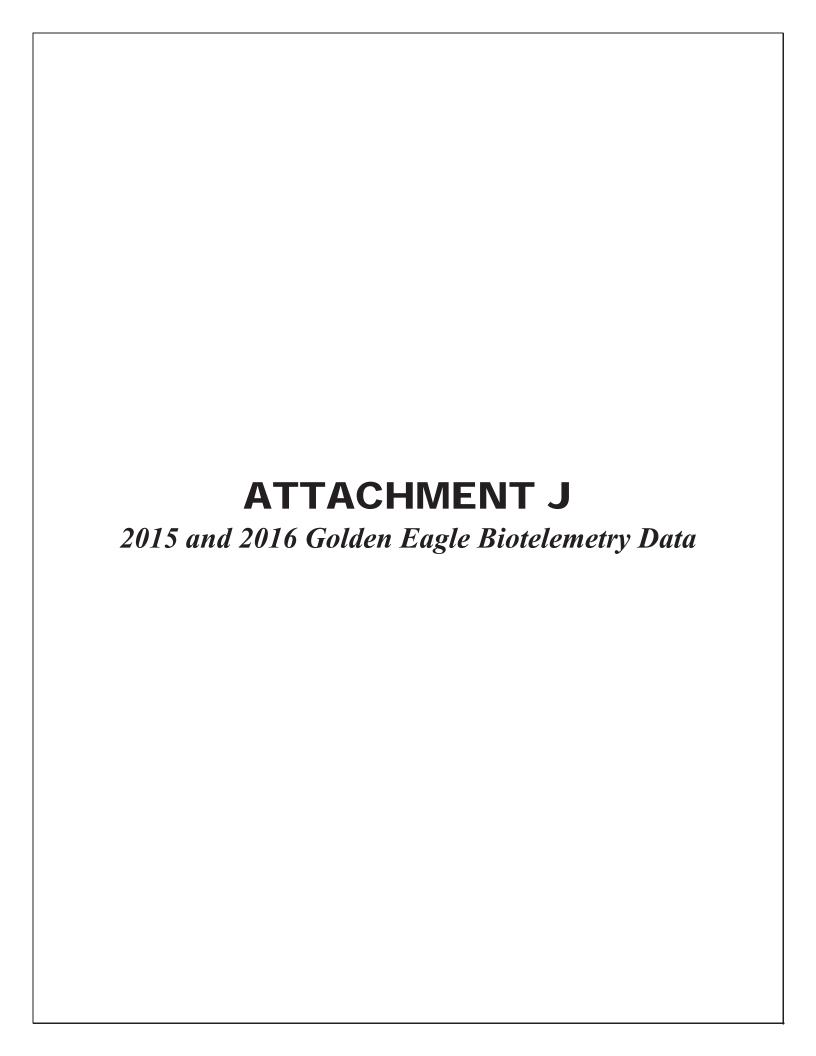
State

FP = Fully Protected SSC = State Species of Concern

WL = Watch List



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Bird Identification	Date	Clock	Latitude	Longitude
F004	2/14/2015	2:36:38 PM	32.864899	-116.39624
		2:52:09 PM	32.864864	-116.396233
		3:07:40 PM	32.86512	-116.395607
		3:23:10 PM	32.868351	-116.382576
		3:38:40 PM	32.868351	-116.382607
		3:54:09 PM	32.868336	-116.382622
		4:09:39 PM	32.868343	-116.382607
		4:25:09 PM	32.868347	-116.382599
		4:40:39 PM	32.86834	-116.382599
		4:56:09 PM	32.868336	-116.382591
		5:11:39 PM	32.868347	-116.382591
		5:27:09 PM	32.864162	-116.379036
		5:42:39 PM	32.82626	-116.38607
		5:58:09 PM	32.797173	-116.410294
		6:13:38 PM	32.73526	-116.467026
	3/30/2015	6:22:39 PM	32.841648	-116.360703
		6:37:28 PM	32.84161	-116.360703
		6:53:09 PM	32.841621	-116.360695
		7:08:57 PM	32.841652	-116.360703
		7:24:39 PM	32.841667	-116.348396
	4/6/2015	6:17:56 PM	32.896698	-116.37014
	4/10/2015	10:07:08 PM	32.668621	-116.432083
		10:22:57 PM	32.737885	-116.34108
		10:38:38 PM	32.797161	-116.377739
		10:54:27 PM	32.798298	-116.35862
		11:10:34 PM	32.792271	-116.368813
		11:25:09 PM	32.795395	-116.374725
		11:40:58 PM	32.795361	-116.374718
		11:56:39 PM	32.795383	-116.37471
	4/11/2015	1:14:09 AM	32.795403	-116.37471
	.,, 20.10	1:26:38 PM	32.795395	-116.374786
		1:29:39 AM	32.795395	-116.37468
		1:42:09 PM	32.795376	-116.374779
		1:45:09 AM	32.795391	-116.37471
		1:57:39 PM	32.795395	-116.374718
		12:12:09 AM	32.79538	-116.37471
		12:27:39 AM	32.795399	-116.374702
		12:43:09 AM	32.795406	-116.374702
		12:58:39 AM	32.795391	-116.374695
		2:01:08 AM	32.795345	-116.374718
		2:28:39 PM	32.79541	-116.374725
		2:44:08 PM	32.795383	-116.374733

Bird Identification	Date	Clock	Latitude	Longitude
		2:59:38 PM	32.795406	-116.374733
		3:15:10 PM	32.795376	-116.374741
		3:30:40 PM	32.790874	-116.376724
		3:46:10 PM	32.790852	-116.376717
		4:01:40 PM	32.790852	-116.376724
		4:17:09 PM	32.790867	-116.376724
		4:32:39 PM	32.790859	-116.376686
		4:48:09 PM	32.790886	-116.376762
		5:03:39 PM	32.79089	-116.376717
		5:19:09 PM	32.790894	-116.376709
		5:34:39 PM	32.790886	-116.376701
		5:50:09 PM	32.764271	-116.36657
		6:05:57 PM	32.736256	-116.318871
		6:21:39 PM	32.724575	-116.297981
		6:37:09 PM	32.717834	-116.285248
		6:52:39 PM	32.76894	-116.264862
		7:08:09 PM	32.807827	-116.304443
		7:23:39 PM	32.837688	-116.293671
	4/22/2015	10:54:09 PM	32.894703	-116.345406
		11:09:58 PM	32.802437	-116.374374
		11:25:39 PM	32.769058	-116.402634
		11:41:56 PM	32.756115	-116.442207
		11:56:39 PM	32.772503	-116.459991
	4/23/2015	1:15:27 AM	32.772564	-116.459976
		1:31:09 AM	32.772575	-116.459976
		12:12:28 AM	32.772552	-116.460022
		12:28:08 AM	32.772533	-116.460014
		12:43:57 AM	32.772552	-116.460007
		12:59:39 AM	32.772545	-116.459999
		6:42:39 PM	32.7584	-116.470245
		7:29:57 PM	32.764591	-116.475143
	7/25/2015	5:55:10 PM	32.879414	-116.401237
		6:10:39 PM	32.840878	-116.360184
		6:26:08 PM	32.844173	-116.358887
	9/19/2015	6:02:39 PM	32.879086	-116.401077
		6:18:27 PM	32.840038	-116.354454
		6:34:09 PM	32.75507	-116.420555
		6:49:39 PM	32.704708	-116.432091
	9/23/2015	7:25:39 PM	32.864456	-116.39756
		7:41:28 PM	32.864426	-116.397545
		7:57:09 PM	32.869812	-116.383415
	9/30/2015	7:29:39 PM	32.837685	-116.323318

Bird Identification	Date	Clock	Latitude	Longitude
	10/10/2015	11:28:09 PM	32.871986	-116.375023
		11:43:39 PM	32.875893	-116.370659
		9:55:10 PM	32.865482	-116.378052
	10/10/2015	9:39:40 PM	32.865479	-116.37809
	10/22/2015	10:07:39 PM	32.648518	-116.398903
		7:30:09 PM	32.836559	-116.392059
		7:45:58 PM	32.735413	-116.426216
		9:36:09 PM	32.58606	-116.352211
		9:51:58 PM	32.622292	-116.362183
F006	5/14/2015	9:45:09 PM	32.75016	-116.458083
	6/5/2015	6:09:52 PM	32.858805	-116.380892
		6:25:13 PM	32.858813	-116.38086
		6:40:38 PM	32.858828	-116.380877
		6:56:05 PM	32.853693	-116.375652
		7:11:31 PM	32.845738	-116.369982
		7:27:11 PM	32.845718	-116.369983
		7:43:38 PM	32.845733	-116.36999
		7:59:09 PM	32.84573	-116.369997
		8:15:49 PM	32.845723	-116.369995
		8:32:29 PM	32.845738	-116.369993
F007	11/8/2015	10:05:39 PM	32.585312	-116.36087
		10:37:08 PM	32.577011	-116.318748
		10:52:57 PM	32.57122	-116.297905
		11:40:08 PM	32.569599	-116.296799
		11:55:57 PM	32.612724	-116.333282
		8:46:58 PM	32.6092	-116.370697
		9:02:39 PM	32.611473	-116.306496
		9:18:28 PM	32.598381	-116.364082
	11/9/2015	12:11:39 AM	32.626381	-116.386841
		12:28:47 AM	32.619396	-116.388191
		12:42:39 AM	32.619698	-116.386269
		12:47:34 AM	32.619904	-116.386147
		2:16:57 PM	32.619961	-116.386177
		2:32:08 PM	32.619949	-116.386139
		2:47:57 PM	32.619957	-116.386192
		3:04:04 PM	32.619968	-116.386879
		3:18:37 PM	32.6199	-116.386131
		3:34:27 PM	32.621365	-116.38649
		3:50:09 PM	32.621361	-116.386482
		4:05:58 PM	32.621361	-116.38649
		4:21:39 PM	32.621368	-116.386482
		4:37:28 PM	32.621353	-116.386497

Bird Identification	Date	Clock	Latitude	Longitude
		4:53:09 PM	32.621735	-116.387718
		5:08:58 PM	32.633469	-116.388924
		5:24:39 PM	32.608452	-116.404068
		5:56:33 PM	32.591091	-116.385201
		6:26:58 PM	32.582191	-116.321426
	11/14/2015	10:38:27 PM	32.600838	-116.413086
		10:54:09 PM	32.616207	-116.379837
	11/15/2015	10:26:39 PM	32.587463	-116.381096
	11/23/2015	8:14:58 PM	32.585957	-116.35038
		8:30:39 PM	32.604206	-116.340813
		8:46:28 PM	32.58889	-116.390617
	11/24/2015	7:13:55 PM	32.654655	-116.419487
		7:29:39 PM	32.742271	-116.462181
	12/6/2015	11:04:09 PM	32.708763	-116.456802
		11:19:58 PM	32.769684	-116.463554
	12/18/2015	10:06:58 PM	32.770451	-116.457687
		10:22:38 PM	32.770458	-116.457687
		10:38:27 PM	32.770451	-116.457718
		10:54:09 PM	32.770439	-116.457718
		11:09:58 PM	32.77047	-116.457718
		11:25:39 PM	32.770458	-116.457718
		11:41:26 PM	32.770439	-116.457703
		11:57:09 PM	32.770428	-116.457672
		8:48:39 PM	32.772396	-116.47216
		9:04:58 PM	32.753853	-116.454407
		9:19:39 PM	32.770466	-116.45771
		9:35:28 PM	32.770443	-116.457703
		9:51:08 PM	32.770191	-116.457405
	12/19/2015	12:12:59 AM	32.770515	-116.457703
		12:28:40 AM	32.770439	-116.457703
		12:39:09 AM	32.770447	-116.457695
		2:48:39 PM	32.770439	-116.457703
		3:04:09 PM	32.770428	-116.457695
		3:19:40 PM	32.77042	-116.457687
		3:35:09 PM	32.770447	-116.45771
		3:50:40 PM	32.770424	-116.457695
		4:06:10 PM	32.77042	-116.457687
		4:21:40 PM	32.770439	-116.457695
		4:37:10 PM	32.770405	-116.457695
		4:52:40 PM	32.770416	-116.457695
		5:08:10 PM	32.772282	-116.454224
	12/21/2015	8:05:09 PM	32.610806	-116.423882

2015 Golden Eagle Biotelemetry Data (Tracey et al. 2016)

Bird Identification	Date	Clock	Latitude	Longitude
	12/23/2015	10:08:39 PM	32.763695	-116.428673
		9:21:33 PM	32.666386	-116.396713
		9:37:10 PM	32.665474	-116.367241
		9:52:58 PM	32.735767	-116.387474
	12/24/2015	7:19:57 PM	32.66991	-116.447548
		7:35:38 PM	32.621361	-116.422119
	12/25/2015	11:46:33 PM	32.650948	-116.441261
	12/26/2015	2:52:40 PM	32.608986	-116.422096
		3:08:32 PM	32.608997	-116.422112
		3:24:09 PM	32.608978	-116.422119
		3:39:39 PM	32.608986	-116.422096
		3:55:09 PM	32.60899	-116.422104
		4:10:39 PM	32.608978	-116.422119
		4:26:09 PM	32.608986	-116.422104
M005	10/1/2015	10:07:09 PM	32.584064	-116.273712
M007	12/14/2015	2:40:29 PM	32.610119	-116.423996
	12/15/2015	12:40:44 AM	32.607689	-116.418533
		2:41:34 PM	32.6101	-116.421539
		2:56:59 PM	32.610104	-116.421555
		3:12:23 PM	32.610123	-116.421547
		3:27:47 PM	32.611332	-116.423019
		4:13:59 PM	32.619171	-116.426918
		4:29:23 PM	32.62043	-116.427544
		4:44:47 PM	32.620438	-116.427551
		5:15:32 PM	32.620468	-116.427544
		5:30:54 PM	32.620411	-116.427528
		6:02:04 PM	32.620438	-116.427551
		6:17:31 PM	32.620453	-116.427559
	12/19/2015	7:37:30 PM	32.688057	-116.454384
		9:10:22 PM	32.649323	-116.446838
		9:25:47 PM	32.649487	-116.446228
		9:41:11 PM	32.682022	-116.445183

Bird Identification	Date	Clock	Latitude	Longitude
F007	1/9/2016	7:49:39 PM	32.599373	-116.397797
		8:05:09 PM	32.652779	-116.432549
		8:20:39 PM	32.697327	-116.443794
		9:37:57 PM	32.678211	-116.447922
	2/19/2016	10:06:27 PM	32.590431	-116.354156

Bird Identification	Date	Clock	Latitude	Longitude
		10:22:09 PM	32.611717	-116.407608
		9:50:40 PM	32.582455	-116.339775
	3/18/2016	3:04:00 PM	32.587822	-116.323593
		3:20:00 PM	32.60183	-116.414658
	4/2/2016	6:20:00 PM	32.621685	-116.408638
		6:35:00 PM	32.627701	-116.387245
		6:51:00 PM	32.618973	-116.384727
		7:03:00 PM	32.618904	-116.384552
	4/3/2016	12:05:00 PM	32.5975	-116.370659
		6:36:00 AM	32.62347	-116.385551
		6:52:00 AM	32.623466	-116.385551
		7:08:00 AM	32.623482	-116.385551
		7:24:00 AM	32.621254	-116.386566
		7:39:00 AM	32.620625	-116.386154
		7:55:00 AM	32.620613	-116.386147
		8:11:00 AM	32.620632	-116.386131
		8:27:00 AM	32.62064	-116.386147
		8:42:00 AM	32.620655	-116.386147
		8:58:00 AM	32.620647	-116.386154
		9:14:00 AM	32.62064	-116.386169
		9:30:00 AM	32.61631	-116.406219
	4/13/2016	3:48:00 PM	32.604103	-116.390953
	6/19/2016	12:16:00 PM	32.667297	-116.446785
	6/29/2016	1:37:00 PM	32.633625	-116.397972
		1:52:00 PM	32.74469	-116.44281
	7/2/2016	2:06:00 PM	32.668156	-116.455055
		2:20:00 PM	32.706051	-116.447472
		2:36:00 PM	32.709019	-116.482887
		3:08:00 PM	32.75647	-116.472137
	7/7/2016	1:10:00 PM	32.88131	-116.39669
		12:07:00 PM	32.660995	-116.445038
		12:23:00 PM	32.701931	-116.427689
		12:39:00 PM	32.773869	-116.408585
		12:55:00 PM	32.809612	-116.340172
	7/8/2016	12:23:00 PM	32.710072	-116.424858
		12:38:00 PM	32.759827	-116.364571
		12:54:00 PM	32.8382	-116.371315
	7/15/2016	12:12:00 PM	32.599014	-116.401581
		12:28:00 PM	32.656647	-116.367165
		12:43:00 PM	32.720085	-116.367455
		12:59:00 PM	32.797356	-116.369873
	7/19/2016	12:14:00 PM	32.653767	-116.434761

Bird Identification	Date	Clock	Latitude	Longitude
		12:30:00 PM	32.739441	-116.451073
	7/21/2016	1:04:00 PM	32.629585	-116.437073
		1:20:00 PM	32.700642	-116.456398
	7/27/2016	12:03:00 PM	32.656124	-116.423973
		12:19:00 PM	32.718246	-116.38942
		12:35:00 PM	32.797749	-116.408623
	8/1/2016	1:09:00 PM	32.66481	-116.454453
		1:24:00 PM	32.725754	-116.417557
		1:40:00 PM	32.81284	-116.361565
	8/10/2016	12:26:00 PM	32.642136	-116.35881
		12:42:00 PM	32.719856	-116.373749
		12:58:00 PM	32.767117	-116.413368
	8/12/2016	2:29:00 PM	32.652275	-116.39045
		2:44:00 PM	32.720451	-116.4095
		5:53:00 PM	32.863651	-116.383766
		6:08:00 PM	32.863655	-116.383766
		6:24:00 PM	32.863651	-116.383797
		6:39:00 PM	32.822083	-116.371078
		6:55:00 PM	32.822086	-116.371094
		7:10:00 PM	32.822075	-116.371117
		7:26:00 PM	32.822075	-116.371101
		7:29:00 PM	32.822071	-116.371117
	8/13/2016	10:06:00 AM	32.795166	-116.399246
		10:21:00 AM	32.693108	-116.380356
		10:37:00 AM	32.604717	-116.388618
		2:44:00 PM	32.686935	-116.428894
		3:00:00 PM	32.719692	-116.384155
		3:15:00 PM	32.79694	-116.441261
		3:31:00 PM	32.837578	-116.397568
		6:12:00 AM	32.822083	-116.371109
		6:28:00 AM	32.822071	-116.371117
		6:43:00 AM	32.822067	-116.371117
		6:59:00 AM	32.82206	-116.371124
		7:14:00 AM	32.822083	-116.371117
		7:30:00 AM	32.822079	-116.371094
		7:45:00 AM	32.822075	-116.371094
		8:01:00 AM	32.822086	-116.371086
		8:16:00 AM	32.822186	-116.370476
		8:32:00 AM	32.822182	-116.370468
		8:47:00 AM	32.822174	-116.370483
		9:03:00 AM	32.819191	-116.373688
		9:19:00 AM	32.819172	-116.37368

Bird Identification	Date	Clock	Latitude	Longitude
		9:34:00 AM	32.805084	-116.388039
		9:50:00 AM	32.805096	-116.388008
	8/14/2016	12:03:00 PM	32.743996	-116.431725
		12:19:00 PM	32.632179	-116.405304
	8/25/2016	1:44:00 PM	32.662731	-116.453201
	9/22/2016	11:23:00 AM	32.731213	-116.381042
		11:39:00 AM	32.658821	-116.394516
		11:55:00 AM	32.608189	-116.41761
	9/30/2016	1:00:00 PM	32.66259	-116.349854
		12:44:00 PM	32.689548	-116.284882
	10/9/2016	12:48:00 PM	32.623055	-116.420067
	10/13/2016	1:41:00 PM	32.662895	-116.46328
		1:57:00 PM	32.74633	-116.468994
		11:20:00 AM	32.595108	-116.396599
	10/14/2016	11:36:00 AM	32.597401	-116.292389
		11:52:00 AM	32.594265	-116.341095
	10/15/2016	11:49:00 AM	32.668903	-116.401939
		12:04:00 PM	32.666622	-116.361694
		12:20:00 PM	32.614441	-116.37944
	10/23/2016	11:44:00 AM	32.639065	-116.400429
		12:00:00 PM	32.711334	-116.394135
		12:16:00 PM	32.77166	-116.399933
		12:31:00 PM	32.806438	-116.424133
		12:47:00 PM	32.820305	-116.444016
	10/25/2016	1:06:00 PM	32.879288	-116.391693
		1:22:00 PM	32.812061	-116.397774
		1:37:00 PM	32.759018	-116.402992
		1:53:00 PM	32.678822	-116.401588
	10/26/2016	1:06:00 PM	32.759197	-116.439941
		1:22:00 PM	32.843861	-116.414818
		12:50:00 PM	32.67577	-116.438622
	10/27/2016	1:37:00 PM	32.78146	-116.386307
		1:54:00 PM	32.711121	-116.385826
		2:08:00 PM	32.659935	-116.437538
	10/30/2016	3:12:00 PM	32.873318	-116.388832
		3:28:00 PM	32.873337	-116.38884
		3:44:00 PM	32.874004	-116.389717
		4:00:00 PM	32.873337	-116.388824
		4:15:00 PM	32.873337	-116.388824
		4:31:00 PM	32.873322	-116.388832
		4:47:00 PM	32.873322	-116.388809
		5:03:00 PM	32.873318	-116.388817

Bird Identification	Date	Clock	Latitude	Longitude
		5:18:00 PM	32.872944	-116.391968
		5:34:00 PM	32.871567	-116.394821
		5:50:00 PM	32.87159	-116.394859
		5:54:00 PM	32.871567	-116.394867
	10/31/2016	10:00:00 AM	32.805115	-116.403252
		10:14:00 AM	32.871567	-116.394859
		10:29:00 AM	32.871605	-116.394875
		10:45:00 AM	32.87059	-116.394684
		11:01:00 AM	32.86953	-116.394615
		11:16:00 AM	32.871517	-116.394859
		11:32:00 AM	32.864037	-116.395699
		11:48:00 AM	32.871578	-116.394859
		12:04:00 PM	32.884151	-116.392868
		4:47:00 PM	32.890347	-116.35865
		5:20:00 PM	32.865299	-116.38694
		5:34:00 PM	32.894375	-116.354965
		5:50:00 PM	32.898251	-116.354973
		5:52:00 PM	32.89827	-116.354935
		7:08:00 AM	32.871593	-116.394852
		7:24:00 AM	32.871601	-116.394852
		7:40:00 AM	32.868698	-116.394905
		7:56:00 AM	32.871429	-116.394836
		8:12:00 AM	32.871567	-116.394859
		8:27:00 AM	32.871555	-116.394859
		8:42:00 AM	32.871552	-116.394867
		8:58:00 AM	32.870338	-116.395142
		9:14:00 AM	32.864658	-116.397308
		9:29:00 AM	32.861279	-116.399261
		9:45:00 AM	32.854492	-116.401283
	11/1/2016	11:20:00 AM	32.885429	-116.360458
		11:36:00 AM	32.785477	-116.378189
		11:51:00 AM	32.758011	-116.382668
		12:07:00 PM	32.67976	-116.399445
		7:08:00 AM	32.898281	-116.354965
		7:24:00 AM	32.898308	-116.354935
		7:39:00 AM	32.898296	-116.354942
		7:55:00 AM	32.898289	-116.354942
		8:11:00 AM	32.898289	-116.354927
		8:27:00 AM	32.898361	-116.354881
	11/2/2016	2:12:00 PM	32.66473	-116.470093
	111212010	2:28:00 PM	32.767803	-116.428612
		2:44:00 PM	32.850689	-116.376518

Bird Identification	Date	Clock	Latitude	Longitude
	11/3/2016	11:06:00 AM	32.810593	-116.408081
		11:22:00 AM	32.711857	-116.434822
	11/19/2016	11:20:00 AM	32.649303	-116.418228
		11:36:00 AM	32.702557	-116.403732
		11:51:00 AM	32.748734	-116.383354
		12:07:00 PM	32.815113	-116.356812
		12:22:00 PM	32.873569	-116.363937
	11/22/2016	1:01:00 PM	32.858494	-116.381477
		1:17:00 PM	32.786602	-116.403015
		1:33:00 PM	32.772888	-116.422729
		1:48:00 PM	32.773319	-116.423637
		2:04:00 PM	32.77282	-116.422676
		2:20:00 PM	32.772869	-116.422684
		2:35:00 PM	32.7729	-116.422661
		2:51:00 PM	32.772869	-116.422745
		3:06:00 PM	32.772713	-116.423561
		3:22:00 PM	32.772877	-116.422707
		3:38:00 PM	32.772888	-116.422699
		3:54:00 PM	32.772877	-116.422569
		4:09:00 PM	32.772884	-116.422729
		4:25:00 PM	32.77211	-116.422798
		4:37:00 PM	32.772797	-116.424461
	11/23/2016	10:08:00 AM	32.695084	-116.425819
		10:24:00 AM	32.638302	-116.408455
		6:28:00 AM	32.772888	-116.422737
		6:44:00 AM	32.772892	-116.422722
		6:59:00 AM	32.772884	-116.422722
		7:15:00 AM	32.772884	-116.422722
		7:31:00 AM	32.772881	-116.422722
		7:47:00 AM	32.772881	-116.422668
		8:02:00 AM	32.772888	-116.422684
		8:18:00 AM	32.772888	-116.422722
		8:34:00 AM	32.772873	-116.422722
		8:50:00 AM	32.772884	-116.422737
		9:05:00 AM	32.772861	-116.422737
		9:21:00 AM	32.770885	-116.423492
		9:37:00 AM	32.770893	-116.42347
		9:53:00 AM	32.752365	-116.446289
	11/26/2016	11:57:00 AM	32.660461	-116.413963
		12:13:00 PM	32.779549	-116.385445
	12/15/2016	11:45:00 AM	32.664768	-116.447762
		12:01:00 PM	32.708542	-116.409752

Bird Identification	Date	Clock	Latitude	Longitude
		12:17:00 PM	32.803261	-116.371895
F013	8/29/2016	12:25:29 PM	32.811249	-116.358147
		12:40:59 PM	32.70517	-116.331505
		12:56:44 PM	32.58313	-116.298706
F014	3/7/2016	4:12:22 PM	32.873943	-116.277237
		4:27:59 PM	32.839287	-116.239647
		4:43:35 PM	32.814896	-116.232231
		4:59:11 PM	32.814903	-116.232239
		5:14:46 PM	32.81488	-116.232224
		5:30:16 PM	32.814915	-116.232193
		5:45:46 PM	32.815845	-116.185699
		6:01:17 PM	32.8452	-116.170868
		6:16:53 PM	32.845188	-116.170876
		6:32:29 PM	32.845222	-116.17086
		6:48:04 PM	32.845245	-116.170853
		6:56:10 PM	32.845203	-116.170822
	3/8/2016	10:09:09 AM	32.853359	-116.155373
		10:23:38 AM	32.822899	-116.2052
		10:39:11 AM	32.822613	-116.210182
		10:54:41 AM	32.822754	-116.212891
		11:10:11 AM	32.822746	-116.21286
		11:25:41 AM	32.818642	-116.229446
		11:41:11 AM	32.763306	-116.261078
		11:56:46 AM	32.727379	-116.347054
		12:12:16 PM	32.643055	-116.434402
		4:59:30 AM	32.845161	-116.170883
		5:13:05 AM	32.845257	-116.170891
		5:28:40 AM	32.845257	-116.170868
		5:44:11 AM	32.845249	-116.170868
		5:59:46 AM	32.845276	-116.170891
		6:15:16 AM	32.845264	-116.170914
		6:30:46 AM	32.845249	-116.170891
		6:46:17 AM	32.845242	-116.170868
		7:01:48 AM	32.84523	-116.170868
		7:17:23 AM	32.845238	-116.170868
		7:33:14 AM	32.845249	-116.170883
		7:48:46 AM	32.845268	-116.170868
		8:04:16 AM	32.845222	-116.170883
		8:19:46 AM	32.845242	-116.170883
		8:35:16 AM	32.845444	-116.170891
		8:50:46 AM	32.845173	-116.166496
		9:06:16 AM	32.84565	-116.164215

Bird Identification	Date	Clock	Latitude	Longitude
		9:21:46 AM	32.845638	-116.164253
		9:37:17 AM	32.845612	-116.164124
		9:52:46 AM	32.848969	-116.167877
	3/21/2016	1:13:54 PM	32.62373	-116.280136
		1:29:29 PM	32.717449	-116.238251
		1:45:10 PM	32.817837	-116.205307
		12:58:18 PM	32.599426	-116.318649
		2:00:41 PM	32.882149	-116.285942
	3/22/2016	11:39:28 AM	32.721088	-116.259048
		11:55:05 AM	32.707909	-116.257568
		12:10:39 PM	32.666378	-116.233025
		12:26:09 PM	32.623882	-116.1651
F016	6/19/2016	1:17:34 PM	32.706085	-116.41172
	8/6/2016	4:18:44 PM	32.754837	-116.407051
		4:33:45 PM	32.807667	-116.37941
M007	1/10/2016	11:04:42 PM	32.654705	-116.445755
	1/11/2016	3:51:01 PM	32.708641	-116.478561
		4:21:54 PM	32.651794	-116.448097
		4:37:25 PM	32.648273	-116.448517
		4:53:05 PM	32.647621	-116.448624
		5:08:29 PM	32.647575	-116.448639
		6:25:55 PM	32.64748	-116.448929
		6:41:35 PM	32.647587	-116.44857
		6:57:00 PM	32.647568	-116.448593
		7:12:26 PM	32.647587	-116.448555
	1/14/2016	6:57:04 PM	32.591492	-116.386414
		7:12:29 PM	32.59697	-116.360352
		7:27:55 PM	32.60191	-116.378586
		7:43:24 PM	32.611385	-116.387184
		7:58:49 PM	32.64439	-116.402977
		8:14:24 PM	32.672459	-116.428879
		8:29:54 PM	32.671608	-116.422859
		8:45:53 PM	32.674782	-116.428215
	1/16/2016	10:34:34 PM	32.637806	-116.410332
	1/17/2016	1:04:21 AM	32.676472	-116.447914
	2010	12:23:18 AM	32.675495	-116.447174
		12:38:43 AM	32.676456	-116.447807
		12:54:13 AM	32.676525	-116.447884
		2:49:34 PM	32.673309	-116.448822
		3:04:59 PM	32.670662	-116.447723
		3:20:24 PM	32.670631	-116.447739
		3:35:49 PM	32.67065	-116.447746

Bird Identification	Date	Clock	Latitude	Longitude
		3:51:18 PM	32.662735	-116.443382
		4:06:43 PM	32.662792	-116.443428
		4:22:13 PM	32.662743	-116.443367
		4:37:42 PM	32.662727	-116.443367
		4:53:07 PM	32.662773	-116.443405
		6:10:34 PM	32.647503	-116.448471
		6:25:59 PM	32.654625	-116.438576
		6:41:24 PM	32.661564	-116.429939
		6:56:49 PM	32.651775	-116.413551
		7:12:19 PM	32.631142	-116.373497
		7:27:48 PM	32.611938	-116.366249
		7:43:13 PM	32.661259	-116.42939
		7:58:43 PM	32.668903	-116.419777
		8:14:08 PM	32.661964	-116.449974
		8:29:58 PM	32.710487	-116.475449
		8:45:29 PM	32.710419	-116.475388
		9:00:55 PM	32.710457	-116.47538
		9:16:18 PM	32.710461	-116.47538
		9:31:54 PM	32.710442	-116.475395
		9:47:18 PM	32.710426	-116.47554
	4/20/2016	4:00:48 PM	32.634705	-116.431381
		4:16:13 PM	32.727356	-116.468346
	4/29/2016	1:46:49 PM	32.656212	-116.462402
		2:02:19 PM	32.631714	-116.400032
		2:17:49 PM	32.705814	-116.40596
		2:33:34 PM	32.686756	-116.47464
	5/13/2016	1:02:20 PM	32.67466	-116.46685
		12:46:54 PM	32.615643	-116.372185
	5/23/2016	1:12:42 PM	32.760387	-116.393486
		12:41:48 PM	32.591827	-116.315262
		12:57:14 PM	32.655685	-116.372383
	6/19/2016	12:24:24 PM	32.583134	-116.364838
		12:39:49 PM	32.742741	-116.441849
	6/29/2016	1:11:48 PM	32.739769	-116.468826
		12:56:24 PM	32.627796	-116.399017
	7/9/2016	10:24:42 AM	32.655685	-116.436722
		10:40:06 AM	32.676899	-116.474541
	7/20/2016	12:50:48 PM	32.644814	-116.437485
	7/21/2016	3:42:31 PM	32.617855	-116.434212
		7:03:49 PM	32.607433	-116.41803
		7:19:13 PM	32.607445	-116.418098
		7:34:42 PM	32.607418	-116.418243

Bird Identification	Date	Clock	Latitude	Longitude
		7:50:28 PM	32.60762	-116.418602
		7:52:35 PM	32.607616	-116.418564
	7/22/2016	10:03:17 AM	32.638142	-116.447182
		10:18:42 AM	32.679729	-116.461174
		10:34:05 AM	32.757923	-116.452271
		11:35:18 AM	32.661465	-116.4459
	7/23/2016	10:49:34 AM	32.73785	-116.476692
	7/24/2016	1:27:36 PM	32.656132	-116.43956
		1:42:59 PM	32.636887	-116.399796
	7/25/2016	1:11:30 PM	32.637669	-116.394958
		1:26:54 PM	32.736221	-116.398193
		1:42:18 PM	32.75058	-116.395576
		1:57:42 PM	32.774685	-116.294861
		12:56:04 PM	32.614262	-116.408859
		2:13:36 PM	32.816326	-116.329453
		2:29:00 PM	32.88868	-116.374565
	7/27/2016	2:11:17 PM	32.613407	-116.422981
	7/28/2016	11:38:24 AM	32.62014	-116.423058
		11:53:47 AM	32.688705	-116.388947
		12:09:35 PM	32.784836	-116.374283
	7/29/2016	6:37:32 PM	32.646904	-116.460815
		7:08:35 PM	32.652645	-116.449455
		7:24:05 PM	32.652596	-116.449486
		7:39:34 PM	32.652351	-116.44944
		7:46:33 PM	32.65234	-116.449562
	7/30/2016	10:08:34 AM	32.647491	-116.448471
		10:22:59 AM	32.64954	-116.452789
		10:38:34 AM	32.647522	-116.448479
		10:53:59 AM	32.64753	-116.448463
		11:09:34 AM	32.647556	-116.448524
		11:25:22 AM	32.647522	-116.44841
		11:40:50 AM	32.646107	-116.449554
		4:21:54 PM	32.639595	-116.436539
		4:37:35 PM	32.671783	-116.44545
		4:53:29 PM	32.671768	-116.445419
		5:08:54 PM	32.671768	-116.445427
		5:24:17 PM	32.671757	-116.445374
		5:39:41 PM	32.671783	-116.445396
		5:55:05 PM	32.671772	-116.445381
		5:59:35 AM	32.652176	-116.450172
		6:10:29 PM	32.671764	-116.445366
		6:14:59 AM	32.652195	-116.45015

Bird Identification	Date	Clock	Latitude	Longitude
		6:25:53 PM	32.671768	-116.445374
		6:30:23 AM	32.652195	-116.450142
		6:41:17 PM	32.671761	-116.445435
		6:45:48 AM	32.652195	-116.450188
		6:56:41 PM	32.671818	-116.445656
		7:01:14 AM	32.647518	-116.448502
		7:12:35 PM	32.671768	-116.445427
		7:16:44 AM	32.647484	-116.448273
		7:28:00 PM	32.671768	-116.445419
		7:32:12 AM	32.647461	-116.448303
		7:43:35 PM	32.67012	-116.446991
		7:46:19 PM	32.670155	-116.446999
		7:47:36 AM	32.647511	-116.448463
		8:03:00 AM	32.647507	-116.448494
		8:18:25 AM	32.647552	-116.448402
		8:34:04 AM	32.647507	-116.448463
		8:49:29 AM	32.647488	-116.448448
		9:04:54 AM	32.647495	-116.448517
		9:20:52 AM	32.647545	-116.448486
		9:36:17 AM	32.647533	-116.448471
		9:51:51 AM	32.647575	-116.448502
	7/31/2016	1:15:57 PM	32.647018	-116.448433
		1:30:17 PM	32.626579	-116.438995
		1:45:42 PM	32.620621	-116.439156
		10:08:41 AM	32.646988	-116.448463
		10:23:28 AM	32.647057	-116.448364
		10:39:02 AM	32.647022	-116.448425
		10:54:38 AM	32.647026	-116.448387
		11:26:33 AM	32.647339	-116.448631
		11:41:29 AM	32.647038	-116.448364
		11:57:33 AM	32.646931	-116.448326
		12:30:25 PM	32.645905	-116.446655
		12:43:51 PM	32.647041	-116.44841
		2:01:06 PM	32.652969	-116.433029
		3:02:28 PM	32.652855	-116.449631
		3:34:37 PM	32.652409	-116.449715
		4:35:12 PM	32.652275	-116.449799
		5:22:58 PM	32.647469	-116.449493
		6:00:28 AM	32.671329	-116.445564
		6:08:36 PM	32.652641	-116.449715
		6:15:53 AM	32.670609	-116.446579
		6:31:18 AM	32.670631	-116.446571

Bird Identification	Date	Clock	Latitude	Longitude
		6:37:43 PM	32.651875	-116.449707
		6:46:42 AM	32.670639	-116.446548
		6:54:07 PM	32.652763	-116.44973
		7:02:06 AM	32.670605	-116.446556
		7:10:19 PM	32.654766	-116.450813
		7:17:30 AM	32.652489	-116.45192
		7:32:55 AM	32.652458	-116.451866
		7:48:19 AM	32.652447	-116.451851
		8:03:41 AM	32.65247	-116.451927
		8:19:05 AM	32.652431	-116.45182
		8:34:53 AM	32.652435	-116.451874
		8:50:18 AM	32.65242	-116.451881
		9:21:27 AM	32.647018	-116.448349
		9:36:57 AM	32.647053	-116.448349
		9:52:31 AM	32.644909	-116.4422
	8/1/2016	1:14:29 PM	32.708084	-116.354195
		1:29:53 PM	32.781898	-116.37278
		12:59:04 PM	32.631969	-116.394028
		5:59:34 AM	32.652405	-116.451454
		6:14:59 AM	32.652424	-116.451408
		6:30:24 AM	32.652405	-116.4515
		6:45:48 AM	32.652409	-116.451431
		7:01:12 AM	32.652405	-116.451401
		7:16:37 AM	32.65242	-116.451416
		7:32:22 AM	32.65242	-116.451447
		7:47:47 AM	32.652401	-116.451454
		8:03:35 AM	32.647442	-116.449608
	8/24/2016	3:18:41 PM	32.620804	-116.38208
		3:34:07 PM	32.678276	-116.369835
		3:50:00 PM	32.676647	-116.380905
		4:05:51 PM	32.672894	-116.377083
		4:22:20 PM	32.677074	-116.381462
		4:37:07 PM	32.677013	-116.38147
		5:08:12 PM	32.676987	-116.381432
		5:25:25 PM	32.677933	-116.380592
		5:38:48 PM	32.676842	-116.381615
		5:54:17 PM	32.676666	-116.381805
		6:09:48 PM	32.676929	-116.381493
		6:25:12 PM	32.67712	-116.381912
		6:40:36 PM	32.676903	-116.381386
		6:56:22 PM	32.676926	-116.381371
		7:11:48 PM	32.680157	-116.385674

Bird Identification	Date	Clock	Latitude	Longitude
		7:24:01 PM	32.677933	-116.389381
	8/25/2016	1:14:34 PM	32.659386	-116.402809
		1:29:59 PM	32.659313	-116.403091
		1:45:23 PM	32.659286	-116.402924
		10:08:41 AM	32.659248	-116.403076
		10:24:05 AM	32.659039	-116.403046
		10:39:53 AM	32.659275	-116.403053
		10:55:17 AM	32.659195	-116.403084
		11:10:41 AM	32.659237	-116.403061
		11:26:05 AM	32.659267	-116.40313
		11:41:35 AM	32.65929	-116.40313
		11:57:02 AM	32.659302	-116.403099
		12:12:30 PM	32.659306	-116.403076
		12:28:04 PM	32.659264	-116.403015
		12:43:30 PM	32.659271	-116.403038
		12:58:55 PM	32.659286	-116.403008
		2:00:48 PM	32.65926	-116.40303
		2:16:12 PM	32.659245	-116.403145
		2:31:58 PM	32.659256	-116.403038
		2:47:25 PM	32.65921	-116.402893
		3:02:48 PM	32.659412	-116.4039
		3:18:12 PM	32.679974	-116.386879
		3:33:59 PM	32.679958	-116.385689
		3:49:24 PM	32.629597	-116.389954
		4:04:48 PM	32.623196	-116.401047
		4:20:12 PM	32.623131	-116.401115
		4:35:36 PM	32.623192	-116.402557
		4:51:01 PM	32.654663	-116.403786
		5:06:37 PM	32.656631	-116.403717
		5:22:15 PM	32.656696	-116.403503
		5:37:44 PM	32.656708	-116.403458
		5:53:13 PM	32.656712	-116.403511
		6:08:38 PM	32.667088	-116.394485
		6:16:30 AM	32.677559	-116.389656
		6:24:28 PM	32.67791	-116.389328
		6:31:54 AM	32.677574	-116.389633
		6:39:59 PM	32.677914	-116.389366
		6:47:19 AM	32.677521	-116.389664
		6:55:24 PM	32.677872	-116.389343
		7:02:42 AM	32.677567	-116.389626
		7:10:48 PM	32.678116	-116.389351
		7:18:05 AM	32.677555	-116.389664

Bird Identification	Date	Clock	Latitude	Longitude
		7:19:54 PM	32.677975	-116.389351
		7:33:29 AM	32.665771	-116.414589
		7:48:54 AM	32.665668	-116.414963
		8:04:18 AM	32.665802	-116.415413
		8:19:42 AM	32.665817	-116.415337
		8:35:21 AM	32.665188	-116.414894
		8:50:47 AM	32.664944	-116.41494
		9:06:35 AM	32.665134	-116.414917
		9:22:07 AM	32.669044	-116.410866
		9:37:47 AM	32.664131	-116.408997
		9:53:11 AM	32.659763	-116.407158
	8/26/2016	1:13:57 PM	32.672096	-116.411354
		1:29:35 PM	32.672104	-116.411362
		1:45:05 PM	32.672112	-116.4114
		10:08:29 AM	32.674107	-116.407715
		10:23:53 AM	32.674129	-116.407707
		10:39:17 AM	32.674122	-116.407722
		10:54:42 AM	32.674149	-116.407745
		11:10:06 AM	32.674145	-116.407707
		11:25:30 AM	32.674156	-116.407715
		11:40:59 AM	32.674191	-116.40773
		11:56:27 AM	32.674164	-116.407806
		12:12:06 PM	32.674168	-116.407639
		12:27:31 PM	32.672775	-116.411758
		12:42:55 PM	32.672745	-116.41172
		12:58:24 PM	32.672058	-116.41124
		2:00:36 PM	32.672089	-116.411453
		2:16:07 PM	32.692631	-116.406891
		2:31:31 PM	32.762405	-116.436226
		6:16:53 AM	32.675415	-116.388313
		6:32:18 AM	32.675434	-116.388329
		6:47:42 AM	32.668697	-116.396255
		7:03:06 AM	32.668705	-116.396233
		7:18:30 AM	32.668655	-116.396194
		7:33:55 AM	32.668652	-116.396217
		7:49:24 AM	32.668655	-116.39621
		8:04:48 AM	32.668598	-116.396164
		8:20:12 AM	32.668694	-116.396233
		8:35:36 AM	32.668663	-116.396133
		8:51:00 AM	32.668663	-116.396141
		9:06:35 AM	32.675426	-116.415955
		9:22:00 AM	32.676285	-116.40316

Bird Identification	Date	Clock	Latitude	Longitude
		9:37:24 AM	32.674492	-116.406967
		9:53:04 AM	32.674118	-116.407722
	8/27/2016	1:01:49 PM	32.661491	-116.404198
		1:16:13 PM	32.661533	-116.40406
		1:32:00 PM	32.661484	-116.404198
		1:47:29 PM	32.659279	-116.403015
		12:29:24 PM	32.6777	-116.38916
		12:45:08 PM	32.661461	-116.40435
		2:02:55 PM	32.65926	-116.403053
		2:18:27 PM	32.659248	-116.402214
		2:33:53 PM	32.659119	-116.398651
		2:49:21 PM	32.659374	-116.402435
		3:04:49 PM	32.659527	-116.402382
		3:20:34 PM	32.659321	-116.40303
		3:36:26 PM	32.659245	-116.403053
		3:52:22 PM	32.659279	-116.403053
		4:08:05 PM	32.659279	-116.403038
		4:23:59 PM	32.659267	-116.403046
		4:39:53 PM	32.659222	-116.403046
		5:11:20 PM	32.659317	-116.403061
		5:27:05 PM	32.659245	-116.403053
		5:42:30 PM	32.659245	-116.403053
		5:57:54 PM	32.676765	-116.389381
		6:13:19 PM	32.677246	-116.390198
		6:28:42 PM	32.677265	-116.390205
		6:44:06 PM	32.67725	-116.390213
		6:59:30 PM	32.677967	-116.389275
		7:14:55 PM	32.677895	-116.389351
		7:17:35 PM	32.677948	-116.389397
	8/28/2016	10:09:48 AM	32.666153	-116.415482
		10:25:12 AM	32.708931	-116.435211
		10:40:37 AM	32.77335	-116.454941
		6:17:36 AM	32.677567	-116.389801
		6:33:00 AM	32.677544	-116.389793
		6:48:25 AM	32.67754	-116.389786
		7:03:48 AM	32.677586	-116.389374
		7:19:12 AM	32.668724	-116.395706
		7:34:36 AM	32.668716	-116.395699
		7:50:01 AM	32.668709	-116.395737
		8:05:24 AM	32.66872	-116.395699
		8:20:49 AM	32.668701	-116.395699
		8:36:13 AM	32.668747	-116.39576

Bird Identification	Date	Clock	Latitude	Longitude
		8:51:43 AM	32.669022	-116.396072
		9:07:34 AM	32.682018	-116.411255
		9:23:00 AM	32.682018	-116.411263
		9:38:24 AM	32.68203	-116.411263
		9:53:48 AM	32.68169	-116.410133
	9/6/2016	2:10:25 PM	32.647957	-116.448479
		2:26:05 PM	32.648026	-116.448883
		2:41:30 PM	32.647964	-116.448715
		2:56:54 PM	32.648064	-116.44854
		3:12:53 PM	32.647877	-116.449005
		3:28:18 PM	32.666973	-116.421997
		3:44:05 PM	32.671906	-116.421883
		3:59:30 PM	32.671921	-116.421875
		4:14:54 PM	32.671902	-116.421906
		4:30:18 PM	32.671879	-116.421844
		4:45:42 PM	32.671787	-116.421188
		5:01:06 PM	32.671841	-116.421234
		5:16:30 PM	32.671799	-116.421318
		5:31:55 PM	32.671822	-116.421257
		5:47:34 PM	32.671818	-116.421272
		6:02:59 PM	32.671776	-116.421295
		6:18:23 PM	32.671818	-116.421318
		6:33:48 PM	32.671844	-116.42128
		6:49:11 PM	32.671867	-116.421249
		7:04:35 PM	32.677399	-116.404648
		7:08:19 PM	32.677349	-116.404594
	9/7/2016	1:08:12 PM	32.673004	-116.411301
		1:23:35 PM	32.672993	-116.411293
		1:38:59 PM	32.673019	-116.411331
		1:54:23 PM	32.672997	-116.411308
		10:02:43 AM	32.673805	-116.415085
		10:18:12 AM	32.673779	-116.415016
		10:33:36 AM	32.673058	-116.411186
		10:49:00 AM	32.673073	-116.411362
		11:04:25 AM	32.67305	-116.411407
		11:19:49 AM	32.673031	-116.411346
		11:35:14 AM	32.67308	-116.411377
		11:50:37 AM	32.673012	-116.411278
		12:06:11 PM	32.673061	-116.4114
		12:21:59 PM	32.673023	-116.411278
		12:37:23 PM	32.672993	-116.411316
		12:52:47 PM	32.673019	-116.41124

Bird Identification	Date	Clock	Latitude	Longitude
		2:09:47 PM	32.673077	-116.411362
		2:25:17 PM	32.673088	-116.411362
		2:41:01 PM	32.672546	-116.411621
		2:56:30 PM	32.672558	-116.411682
		3:12:04 PM	32.672588	-116.411736
		3:27:29 PM	32.672558	-116.411774
		3:42:53 PM	32.672497	-116.411758
		3:58:17 PM	32.672543	-116.411781
		4:13:41 PM	32.67247	-116.411758
		4:29:05 PM	32.6735	-116.407837
		4:44:30 PM	32.66016	-116.416466
		6:25:05 AM	32.674572	-116.40834
		6:40:29 AM	32.674545	-116.408318
		6:55:55 AM	32.67458	-116.40844
		7:11:24 AM	32.678883	-116.413498
		7:27:07 AM	32.675583	-116.40934
		7:42:36 AM	32.671803	-116.415627
		7:58:01 AM	32.672318	-116.41497
		8:13:24 AM	32.671898	-116.416008
		8:28:49 AM	32.671696	-116.415466
		8:44:13 AM	32.672863	-116.415665
		8:59:37 AM	32.674305	-116.415787
		9:15:23 AM	32.673801	-116.415077
		9:30:48 AM	32.67382	-116.415169
		9:46:13 AM	32.673931	-116.415169
	9/8/2016	10:02:53 AM	32.651901	-116.414093
		10:18:34 AM	32.658783	-116.437355
		10:33:59 AM	32.718285	-116.481804
		2:26:25 PM	32.676506	-116.464745
		5:01:13 PM	32.6493	-116.425583
		5:16:59 PM	32.676434	-116.432945
		5:32:25 PM	32.676395	-116.433006
		5:47:49 PM	32.676422	-116.432991
		6:03:19 PM	32.676388	-116.432983
		6:19:04 PM	32.676426	-116.432938
		6:34:30 PM	32.676617	-116.433128
		6:49:55 PM	32.677002	-116.433777
		7:02:12 PM	32.678612	-116.436295
	9/9/2016	1:23:25 PM	32.623241	-116.401176
		1:39:04 PM	32.623154	-116.401123
		1:54:29 PM	32.623169	-116.4011
		10:02:47 AM	32.67107	-116.413368

Bird Identification	Date	Clock	Latitude	Longitude
		10:18:12 AM	32.669975	-116.415527
		10:33:39 AM	32.670025	-116.415565
		10:49:07 AM	32.66996	-116.415466
		11:05:00 AM	32.669941	-116.415474
		11:20:24 AM	32.67038	-116.415543
		11:35:48 AM	32.636879	-116.429947
		11:51:12 AM	32.626434	-116.35215
		12:06:36 PM	32.595219	-116.339043
		12:22:00 PM	32.630787	-116.367485
		12:37:25 PM	32.623112	-116.401146
		12:53:00 PM	32.623131	-116.401123
		2:09:58 PM	32.623566	-116.401154
		2:25:24 PM	32.65731	-116.405571
		2:40:49 PM	32.67654	-116.433701
		2:56:23 PM	32.676498	-116.43367
		3:11:47 PM	32.67646	-116.433762
		3:27:11 PM	32.66584	-116.413353
		4:13:48 PM	32.655544	-116.414116
		4:29:35 PM	32.652191	-116.403984
		4:45:24 PM	32.65926	-116.415794
		5:00:48 PM	32.648197	-116.411606
		5:16:13 PM	32.660103	-116.404427
		5:31:36 PM	32.674171	-116.422493
		5:47:06 PM	32.674149	-116.422508
		6:02:52 PM	32.674107	-116.422539
		6:18:17 PM	32.671295	-116.401131
		6:25:34 AM	32.674171	-116.409813
		6:33:40 PM	32.671196	-116.401176
		6:40:59 AM	32.67416	-116.409775
		6:49:12 PM	32.671288	-116.401215
		6:56:24 AM	32.674164	-116.40979
		7:00:25 PM	32.675961	-116.401566
		7:11:48 AM	32.674156	-116.409805
		7:27:13 AM	32.673962	-116.413872
		7:42:36 AM	32.67395	-116.413895
		7:57:59 AM	32.673988	-116.414093
		8:13:23 AM	32.670959	-116.41523
		8:28:47 AM	32.672932	-116.415825
		8:44:13 AM	32.672638	-116.411781
		8:59:36 AM	32.672642	-116.411758
		9:15:22 AM	32.672688	-116.411804
		9:30:50 AM	32.672287	-116.411842

Bird Identification	Date	Clock	Latitude	Longitude
		9:46:19 AM	32.670757	-116.413551
	9/10/2016	1:08:36 PM	32.674225	-116.407639
		1:24:06 PM	32.67424	-116.407684
		1:39:30 PM	32.707973	-116.391167
		1:54:54 PM	32.648418	-116.421379
		10:03:19 AM	32.674221	-116.407677
		10:18:43 AM	32.674213	-116.407654
		10:34:07 AM	32.674221	-116.407646
		10:49:36 AM	32.674248	-116.407715
		11:05:00 AM	32.674194	-116.407646
		11:20:25 AM	32.674225	-116.407623
		11:35:58 AM	32.674358	-116.407852
		11:51:36 AM	32.674217	-116.407654
		12:06:59 PM	32.674248	-116.407623
		12:22:24 PM	32.674198	-116.407608
		12:37:48 PM	32.674194	-116.4076
		12:53:12 PM	32.674187	-116.407585
		2:10:18 PM	32.671867	-116.421165
		2:25:51 PM	32.671883	-116.421188
		2:41:34 PM	32.671871	-116.421204
		2:56:59 PM	32.671852	-116.421181
		3:12:23 PM	32.671833	-116.421265
		3:27:47 PM	32.671864	-116.421196
		3:43:11 PM	32.671833	-116.421158
		3:58:36 PM	32.67186	-116.421211
		4:14:00 PM	32.671852	-116.421211
		4:29:23 PM	32.671841	-116.421196
		4:44:48 PM	32.671822	-116.421066
		5:00:34 PM	32.671844	-116.421196
		5:16:01 PM	32.671825	-116.421211
		5:31:30 PM	32.671844	-116.421181
		5:46:54 PM	32.672462	-116.416458
		6:02:18 PM	32.672523	-116.416573
		6:17:42 PM	32.672646	-116.416679
		6:26:05 AM	32.674213	-116.406784
		6:33:05 PM	32.672539	-116.416641
		6:41:30 AM	32.673988	-116.408043
		6:48:32 PM	32.670788	-116.413948
		6:56:55 AM	32.673943	-116.407967
		6:58:44 PM	32.674145	-116.409775
		7:12:25 AM	32.673992	-116.408035
		7:27:49 AM	32.67395	-116.408005

Bird Identification	Date	Clock	Latitude	Longitude
		7:43:12 AM	32.67392	-116.408035
		7:58:36 AM	32.673977	-116.408028
		8:14:01 AM	32.674175	-116.407669
		8:29:24 AM	32.674149	-116.407715
		8:44:48 AM	32.674129	-116.407639
		9:00:34 AM	32.674202	-116.407654
		9:15:59 AM	32.67424	-116.407669
		9:31:24 AM	32.674221	-116.4077
		9:46:48 AM	32.674213	-116.407692
	9/11/2016	10:05:05 AM	32.6721	-116.40097
		10:20:29 AM	32.636215	-116.431793
		11:37:53 AM	32.6371	-116.446922
		11:53:18 AM	32.741505	-116.399025
		12:08:42 PM	32.773209	-116.43309
		12:24:06 PM	32.676624	-116.452835
		12:39:30 PM	32.672966	-116.409698
		2:27:35 PM	32.669128	-116.455368
		2:42:59 PM	32.720257	-116.480339
		2:58:23 PM	32.66161	-116.343735
		3:13:48 PM	32.696125	-116.339462
		3:29:34 PM	32.792431	-116.29287
		3:45:00 PM	32.84951	-116.333405
		4:00:24 PM	32.887669	-116.384537
		6:27:29 AM	32.656761	-116.406006
		6:42:53 AM	32.656757	-116.405991
		6:58:18 AM	32.656796	-116.406013
		7:13:43 AM	32.656765	-116.405998
		7:29:06 AM	32.657295	-116.405441
		7:44:31 AM	32.663029	-116.406883
		7:59:59 AM	32.663074	-116.406937
		8:16:30 AM	32.672638	-116.41188
		8:32:02 AM	32.67263	-116.411774
		8:47:31 AM	32.6726	-116.411812
		9:03:01 AM	32.675163	-116.416016
		9:18:52 AM	32.673042	-116.411217
		9:34:19 AM	32.672619	-116.411758
		9:49:42 AM	32.672638	-116.411804
	9/23/2016	1:04:02 PM	32.672302	-116.421913
	=•.•	1:19:31 PM	32.672138	-116.421822
		1:35:01 PM	32.665897	-116.422417
	9/24/2016	1:03:59 PM	32.647526	-116.448593
		1:19:24 PM	32.647545	-116.448463

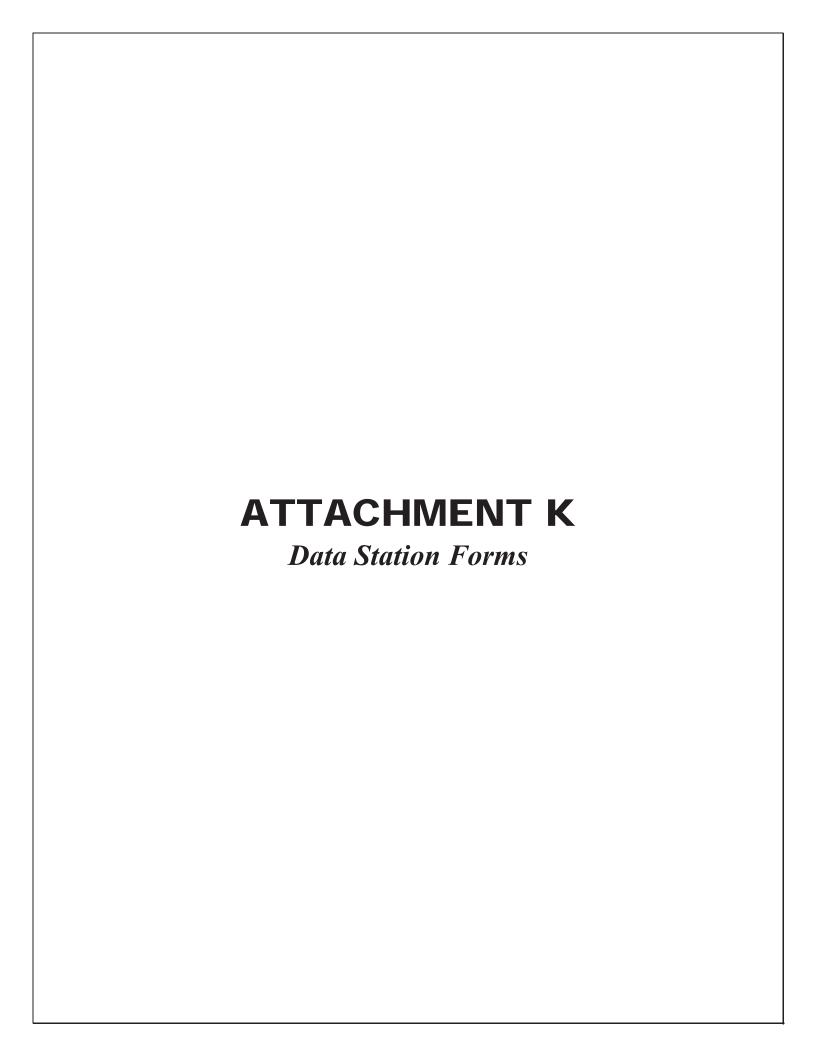
Bird Identification	Date	Clock	Latitude	Longitude
		1:35:16 PM	32.64756	-116.448425
		1:50:46 PM	32.647442	-116.448654
		10:13:08 AM	32.64753	-116.448654
		10:29:04 AM	32.647526	-116.448631
		10:44:40 AM	32.647812	-116.448051
		11:01:56 AM	32.647575	-116.448502
		11:15:23 AM	32.647614	-116.44857
		11:31:00 AM	32.647526	-116.44812
		11:46:31 AM	32.647541	-116.448631
		12:02:35 PM	32.647724	-116.448502
		12:17:12 PM	32.647533	-116.448639
		12:32:52 PM	32.64764	-116.448479
		12:48:34 PM	32.647541	-116.448494
		2:06:13 PM	32.647533	-116.448669
		2:21:45 PM	32.647522	-116.448555
		9:57:36 AM	32.647556	-116.448677
	9/25/2016	1:04:56 PM	32.647579	-116.448502
		1:20:35 PM	32.647572	-116.448547
		1:36:30 PM	32.647652	-116.448257
		1:51:57 PM	32.647545	-116.448677
		10:14:00 AM	32.647617	-116.448563
		10:29:24 AM	32.647614	-116.448601
		10:44:49 AM	32.647587	-116.448547
		11:01:54 AM	32.647625	-116.448502
		11:16:17 AM	32.647625	-116.448502
		11:31:43 AM	32.647621	-116.448502
		11:47:12 AM	32.647614	-116.448524
		12:02:37 PM	32.647598	-116.448494
		12:18:22 PM	32.647591	-116.448532
		12:35:01 PM	32.647594	-116.448456
		12:49:26 PM	32.647556	-116.448784
		5:29:17 PM	32.607635	-116.418419
		5:44:42 PM	32.607666	-116.418442
		6:00:13 PM	32.607632	-116.418449
		6:15:42 PM	32.607635	-116.418411
		6:31:07 PM	32.607502	-116.418381
		6:40:14 PM	32.607864	-116.418533
		8:56:24 AM	32.652042	-116.449562
		9:11:54 AM	32.653957	-116.444061
		9:27:25 AM	32.653954	-116.444046
		9:42:54 AM	32.653965	-116.444069
		9:58:34 AM	32.653973	-116.444054

Bird Identification	Date	Clock	Latitude	Longitude
	9/26/2016	10:14:54 AM	32.662308	-116.437408
		10:30:19 AM	32.709614	-116.478699
		6:37:28 AM	32.607594	-116.418427
		6:52:53 AM	32.607567	-116.418411
		7:08:19 AM	32.607643	-116.418442
		7:23:48 AM	32.608658	-116.416786
		7:39:13 AM	32.608688	-116.416763
		7:54:43 AM	32.608234	-116.419357
		8:10:34 AM	32.608658	-116.416908
		8:26:00 AM	32.608658	-116.416794
		8:41:24 AM	32.608685	-116.416786
		8:56:49 AM	32.608696	-116.416817
		9:12:13 AM	32.643635	-116.440628
		9:27:52 AM	32.647793	-116.448792
		9:43:36 AM	32.647518	-116.44857
		9:59:25 AM	32.647587	-116.44841
	9/29/2016	12:07:00 PM	32.658691	-116.44474
	9/30/2016	12:22:01 PM	32.654202	-116.421555
	10/1/2016	10:02:31 AM	32.687778	-116.471123
		10:18:00 AM	32.665489	-116.466522
	10/2/2016	10:49:59 AM	32.654121	-116.402885
		11:05:24 AM	32.695423	-116.331024
		11:20:54 AM	32.737717	-116.315681
		11:36:18 AM	32.833153	-116.282326
		11:51:43 AM	32.870972	-116.348694
M010	2/17/2016	10:13:34 PM	32.578594	-116.292938
		10:29:10 PM	32.579941	-116.276733
		10:44:46 PM	32.593178	-116.291618
		8:08:28 PM	32.687885	-116.472397
		8:24:03 PM	32.672066	-116.400383
		8:55:17 PM	32.609077	-116.293663
		9:10:51 PM	32.583141	-116.298546
		9:26:45 PM	32.57859	-116.292923
		9:42:22 PM	32.578575	-116.292923
	2/18/2016	1:19:44 PM	32.573704	-116.289467
		1:35:22 PM	32.573681	-116.289444
		1:37:00 AM	32.569733	-116.286438
		1:50:59 PM	32.573738	-116.289459
		1:52:40 AM	32.57616	-116.289734
		2:06:35 PM	32.57373	-116.289528
		2:08:39 AM	32.573704	-116.289444
		2:22:17 PM	32.576275	-116.288574

Bird Identification	Date	Clock	Latitude	Longitude
		2:24:15 AM	32.573711	-116.289413
		2:37:52 PM	32.577656	-116.285454
		2:39:51 AM	32.573669	-116.289383
		2:41:40 AM	32.5737	-116.289421
		2:53:28 PM	32.578678	-116.284691
		3:09:05 PM	32.574566	-116.287766
		3:24:41 PM	32.573883	-116.288147
		3:40:16 PM	32.573975	-116.288124
		3:55:52 PM	32.573956	-116.288101
		4:11:28 PM	32.573925	-116.288139
		4:27:04 PM	32.573917	-116.288132
		4:42:40 PM	32.574429	-116.287636
	2/27/2016	12:41:40 PM	32.582161	-116.348175
	3/1/2016	1:56:34 PM	32.576984	-116.277992
		2:12:10 PM	32.570763	-116.27121
		2:27:45 PM	32.577229	-116.282059
		2:43:27 PM	32.577244	-116.282082
		2:59:14 PM	32.577354	-116.282455
	3/10/2016	2:51:28 PM	32.597839	-116.219406
		3:22:46 PM	32.590744	-116.242622
	3/16/2016	12:49:04 PM	32.597694	-116.388367
	3/17/2016	3:38:34 PM	32.586903	-116.288696
	3/18/2016	2:20:10 PM	32.575325	-116.249718
	3/19/2016	1:47:05 PM	32.618046	-116.242584
		2:02:41 PM	32.60207	-116.249031
		2:18:17 PM	32.580978	-116.256187
	3/20/2016	12:43:22 PM	32.577003	-116.23938
	3/22/2016	1:43:05 PM	32.604984	-116.193176
		1:58:46 PM	32.617233	-116.174164
		4:03:52 PM	32.620102	-116.163513
	3/25/2016	1:07:53 PM	32.582497	-116.231773
		1:23:28 PM	32.582733	-116.231018
		1:39:03 PM	32.587872	-116.224442
		12:36:28 PM	32.579338	-116.242928
		12:52:14 PM	32.582127	-116.235138
		3:12:52 PM	32.576111	-116.27961
M011	1/24/2016	11:46:23 PM	32.653034	-116.449097
	1/25/2016	1:04:17 AM	32.691753	-116.402122
		1:19:53 AM	32.691811	-116.402199
		1:35:44 AM	32.691845	-116.402214
		1:38:38 PM	32.69175	-116.402206
		1:51:16 AM	32.691837	-116.402153

Bird Identification	Date	Clock	Latitude	Longitude
		1:54:10 PM	32.691772	-116.402176
		12:01:58 AM	32.665878	-116.388489
		12:17:34 AM	32.680359	-116.385925
		12:33:10 AM	32.695347	-116.40255
		12:48:41 AM	32.691753	-116.402153
		2:06:47 AM	32.691799	-116.402176
		2:09:41 PM	32.691772	-116.402206
		2:20:15 AM	32.691795	-116.402214
		2:25:17 PM	32.691765	-116.402191
		2:40:53 PM	32.691772	-116.40226
		2:56:29 PM	32.691772	-116.402222
		3:12:06 PM	32.69178	-116.402237
		3:27:41 PM	32.691769	-116.402229
		3:43:11 PM	32.693474	-116.402191
		3:58:42 PM	32.676273	-116.409584
		4:14:17 PM	32.675125	-116.408676
		4:29:52 PM	32.674603	-116.408371
		4:45:31 PM	32.679302	-116.409683
		5:01:15 PM	32.657955	-116.426018
		5:16:46 PM	32.672081	-116.422104
		5:32:17 PM	32.67017	-116.41832
		5:47:53 PM	32.674881	-116.420662
		6:03:29 PM	32.635399	-116.404343
		6:19:05 PM	32.613945	-116.361488
		6:34:41 PM	32.622261	-116.355713
		6:50:17 PM	32.616417	-116.361931
	7/6/2016	2:38:16 PM	32.826824	-116.162399
		2:53:43 PM	32.837917	-116.244888
		3:09:17 PM	32.819263	-116.301025
		3:25:09 PM	32.813671	-116.371826
		3:40:41 PM	32.813675	-116.371849
		3:56:09 PM	32.78717	-116.399857
		4:11:41 PM	32.787167	-116.399841
		4:27:12 PM	32.787178	-116.399834
		4:43:08 PM	32.787159	-116.399849
		4:59:01 PM	32.786579	-116.402229
		5:14:33 PM	32.786545	-116.402229
		5:30:02 PM	32.78656	-116.402222
		5:45:34 PM	32.782543	-116.405014
		6:01:04 PM	32.782524	-116.404968
		6:16:34 PM	32.782547	-116.404976
		6:32:04 PM	32.782524	-116.404976

Bird Identification	Date	Clock	Latitude	Longitude
		6:47:34 PM	32.782536	-116.404968
		7:03:04 PM	32.776512	-116.403702
		7:18:34 PM	32.776524	-116.403725
		7:34:04 PM	32.776512	-116.403709
		7:49:34 PM	32.776524	-116.403687
		8:05:04 PM	32.776508	-116.403717
		8:20:34 PM	32.776508	-116.403679
		8:36:14 PM	32.776535	-116.403702
		8:52:09 PM	32.77652	-116.403709
		9:08:04 PM	32.776531	-116.403725
		9:09:53 PM	32.776524	-116.403702
	7/7/2016	4:31:45 AM	32.776562	-116.403702
		4:45:11 AM	32.776546	-116.403694
		5:01:02 AM	32.77652	-116.40374
		5:16:33 AM	32.776524	-116.403725
		5:32:03 AM	32.77652	-116.40374
		5:47:33 AM	32.776508	-116.403732



Project/Site: Torrey Wind Project City/County: Boulevard/San Diego Sampling Date: 7/3/2018					3			
Applicant/Owner:				State:CA Sampling Point: 1				
Investigator(s): C. Amoaku, P. Schuyler, L. Mobley, J. M	Marcon	Section, T	ownship, Ra	nge:		-		
Landform (hillslope, terrace, etc.): floodplain		Local relie	ef (concave,	convex, none): None	e	Slo	pe (%): ())
Subregion (LRR):C - Mediterranean California	Lat:			Long:		 Datu	ım:	
Soil Map Unit Name:				NWI cla	ssification			
Are climatic / hydrologic conditions on the site typical for this t	ime of ye	ear? Yes	No ((If no, explain	n in Remar	·ks.)		
	-	disturbed?		'Normal Circumstan	ces" prese	nt? Yes	No	\circ
	-	oblematic?		eded, explain any a	nswers in	Remarks.)		
SUMMARY OF FINDINGS - Attach site map sh							atures,	etc.
Hydrophytic Vegetation Present? Yes No	•							
Hydric Soil Present? Yes No		ls t	he Sampled	Area				
Wetland Hydrology Present? Yes No Remarks:	0	wit	hin a Wetlar	nd? Yes	0	No 💿		
VEGETATION								
	bsolute		Indicator	Dominance Test	workshee	et:		
1. Salix laevigata	<u>6 Cover</u>	Species? Yes	Status FACW	Number of Domina That Are OBL, FA).	(A)
2.			- TACW	-			<u>.</u>	(^)
3.			-	 Total Number of D Species Across A 		J	1	(B)
4.				1			,	(=)
Sapling/Shrub Stratum	5 %		-	Percent of Domina That Are OBL, FA		_).0 %	(A/B)
1. Tamarix ramossissima (T. chinensis)	10	Yes	FAC	Prevalence Index	workshe	et:		
2.Baccharis salicifolia	2	No	FAC	Total % Cove	r of:	Multip	ly by:	_
3. Artemisia tridentata	10	Yes	Not Listed	OBL species		x 1 =	0	
4.				FACW species	5	x 2 =	10	
5				FAC species	12	x 3 =	36	
Total Cover:	22 %			FACU species	1	x 4 =	4	
1. Bromus tectorum	40	Yes	Not Listed	UPL species	54	x 5 =	270	(D)
2. Hirschfeldia incana	3	No	Not Listed	Column Totals:	72	(A)	320	(B)
3. Ambrosia psilostachya	1	No	FACU	Prevalence I	ndex = B/	/A =	4.44	
4. Heliotropium curassavicum	1	No	Not Listed	Hydrophytic Veg	etation In	dicators:		
5.				Dominance T	est is >50°	%		
6.			•	Prevalence In				
7.				Morphologica		ons¹ (Provide on a separate		ng
8				Problematic H			,)
Woody Vine Stratum	45 %				.,		(====	,
1.				¹ Indicators of hyd	ric soil and	d wetland hy	/drology r	nust
2.				be present.				
Total Cover:	%		-	Hydrophytic				
% Bare Ground in Herb Stratum 50 % % Cover o	of Biotic C	Crust	%	Vegetation Present?	Yes (No (
Remarks:	0.00				. 33 ()	(

SOIL Sampling Point: 1 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Redox Features Color (moist) Color (moist) Texture³ (inches) Type¹ Loc² Remarks 0-210YR 3/1 100 sandy loam 2 - 1210YR 3/3 100 sand ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix. 3Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils: Histosol (A1) 1 cm Muck (A9) (LRR C) Sandy Redox (S5) Histic Epipedon (A2) Stripped Matrix (S6) 2 cm Muck (A10) (LRR B) Black Histic (A3) Loamy Mucky Mineral (F1) Reduced Vertic (F18) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Red Parent Material (TF2) Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other (Explain in Remarks) Redox Dark Surface (F6) 1 cm Muck (A9) (**LRR D**) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) ⁴Indicators of hydrophytic vegetation and Sandy Gleyed Matrix (S4) wetland hydrology must be present. Restrictive Layer (if present): Type: Depth (inches): **Hydric Soil Present?** No (Yes (Remarks: No hydric soil indicators **HYDROLOGY** Wetland Hydrology Indicators: Secondary Indicators (2 or more required) Primary Indicators (any one indicator is sufficient) Water Marks (B1) (Riverine) Surface Water (A1) Salt Crust (B11) Sediment Deposits (B2) (Riverine) High Water Table (A2) Biotic Crust (B12) Drift Deposits (B3) (Riverine) Saturation (A3) Aquatic Invertebrates (B13) Drainage Patterns (B10) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Thin Muck Surface (C7) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water-Stained Leaves (B9) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes (No (Depth (inches): Water Table Present? Yes (No (Depth (inches): Saturation Present? Depth (inches): No (Yes (Wetland Hydrology Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: This point is within Tule Creek, and is a feature in the National Wetland Inventory.

Project/Site: Torrey Wind Project City/County: Boulevard/San Diego Sampling Date: 7/3/20					7/3/2018	3		
Applicant/Owner:				State:CA Sampling Point: 2A				
Investigator(s): C. Amoaku, P. Schuyler, L. Mobley, J. I	Marcon	Section, T	ownship, Rai	nge:		-		
Landform (hillslope, terrace, etc.): floodplain		Local relie	ef (concave, o	convex, none): No	one	Slo	ope (%): 0)
Subregion (LRR):C - Mediterranean California	Lat:	Long: Datum:					um:	
Soil Map Unit Name:				NWI	classification	n:		
Are climatic / hydrologic conditions on the site typical for this	time of ye	ear? Yes	No ((If no, expl	ain in Rema	rks.)		
	-	disturbed?		'Normal Circumsta	ances" prese	ent? Yes) No	\circ
		oblematic?		eded, explain any	, answers in	Remarks.)		
SUMMARY OF FINDINGS - Attach site map sh							atures,	etc.
Hydrophytic Vegetation Present? Yes No								
Hydric Soil Present? Yes No		ls t	he Sampled	Area				
Wetland Hydrology Present? Yes No		wit	hin a Wetlar	nd? Ye	es 🔘	No 💿		
Remarks:								
VEGETATION								
A	Absolute	Dominant	Indicator	Dominance Te	st workshee	et:		
Tree Stratum (Use scientific names.)	% Cover	Species?	Status	Number of Dom				
1. Salix laevigata	50	Yes	FACW	That Are OBL, I	FACW, or FA	AC:	3	(A)
2				Total Number o				
3				Species Across	All Strata:	1	3	(B)
4	50 0/			Percent of Dom		_		
Sapling/Shrub Stratum Total Cover:	50 %			That Are OBL, I	FACW, or FA	AC: 10	0.0%	(A/B)
1.Baccharis salicifolia	25	Yes	FAC	Prevalence Inc	lex workshe	et:		
2. Artemisia tridentata	7	No	Not Listed	Total % Co	ver of:	Multip	ly by:	-
3. Baccharis sarothroides	5	No	Not Listed	OBL species		x 1 =	0	
4. Quercus agrifolia	1	No	Not Listed	FACW species	148	x 2 =	296	
5				FAC species	25	x 3 =	75	
Total Cover:	38 %			FACU species	1	x 4 =	4	
1. Juncus mexicanus	98	Yes	FACW	UPL species	14	x 5 =	70	(D)
2. Gutierrezia sarothrae	1	No	Not Listed	Column Totals:	188	(A)	445	(B)
3. Ambrosia psilostachya	1	No	FACU		e Index = B		2.37	
4.				Hydrophytic V	egetation In	dicators:		
5.		-		★ Dominance				
6.					Index is ≤3.			
7						ons¹ (Provide on a separate		ng
8						c Vegetation	,)
Total Cover: Woody Vine Stratum	100%							
1.				¹ Indicators of h	ydric soil an	d wetland h	ydrology n	nust
2.				be present.				
Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum 50 % % Cover of	of Biotic C	Crust	%	Vegetation Present?	Yes (No (\rightarrow	
Remarks:						-		
								,

SOIL Sampling Point: 2A Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features Depth Color (moist) Color (moist) % Texture³ (inches) Type¹ Loc² 0-6 10YR 2/2 100 sandy clay loam ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix. 3Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils: Histosol (A1) 1 cm Muck (A9) (LRR C) Sandy Redox (S5) Histic Epipedon (A2) Stripped Matrix (S6) 2 cm Muck (A10) (LRR B) Black Histic (A3) Loamy Mucky Mineral (F1) Reduced Vertic (F18) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Red Parent Material (TF2) Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other (Explain in Remarks) Redox Dark Surface (F6) 1 cm Muck (A9) (**LRR D**) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) ⁴Indicators of hydrophytic vegetation and Sandy Gleyed Matrix (S4) wetland hydrology must be present. Restrictive Layer (if present): Type: Hardpan Depth (inches): 6"+ **Hydric Soil Present?** No (Yes (Remarks: No hydric soil indicators **HYDROLOGY** Wetland Hydrology Indicators: Secondary Indicators (2 or more required) Primary Indicators (any one indicator is sufficient) Water Marks (B1) (Riverine) Surface Water (A1) Salt Crust (B11) Sediment Deposits (B2) (Riverine) High Water Table (A2) Biotic Crust (B12) Drift Deposits (B3) (Riverine) Saturation (A3) Aquatic Invertebrates (B13) Drainage Patterns (B10) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Thin Muck Surface (C7) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water-Stained Leaves (B9) FAC-Neutral Test (D5) Field Observations:

Surface Water Present? Yes (No (Depth (inches): Water Table Present? Yes (No (Depth (inches): Saturation Present? Depth (inches): No (Yes (Wetland Hydrology Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: This point is within Tule Creek, and is a feature in the National Wetland Inventory. US Army Corps of Engineers Arid West - Version 11-1-2006

Project/Site: Torrey Wind Project	City/County: Boulevard/San Diego Sampling Date: 7/3/					7/3/2018	8	
Applicant/Owner:				State:CA	San	npling Point:	2B	
Investigator(s): C. Amoaku, P. Schuyler, L. Mobley, J. N	Marcon	Section, T	ownship, Ra	nge:		_		
Landform (hillslope, terrace, etc.): floodplain		Local relie	ef (concave,	convex, none): None	е	Slo	pe (%): ())
Subregion (LRR):C - Mediterranean California	Lat:	Long: Datum:					ım:	
Soil Map Unit Name:				NWI cla	ssification			
Are climatic / hydrologic conditions on the site typical for this t	ime of ve	ear? Yes	No ((If no, explain	n in Remar	'ks.)		
	-	disturbed?		'Normal Circumstand		,	No	
	-	oblematic?		eeded, explain any a	•	_	,	
SUMMARY OF FINDINGS - Attach site map sh							atures,	etc.
Hydrophytic Vegetation Present? Yes No				<u>`</u>		<u>'</u>		
Hydric Soil Present? Yes No	_	ls t	he Sampled	Area				
Wetland Hydrology Present? Yes No Remarks:	\sim		hin a Wetlar		0	No ①		
VEGETATION	bsolute	Dominant	Indicator	Dominance Test	workshee	it.		
	6 Cover	Species?		Number of Domina				
1. Salix laevigata	30	Yes	FACW	That Are OBL, FA			1	(A)
2				Total Number of D	ominant			
3				Species Across Al	l Strata:	3	3	(B)
4				Percent of Domina	ant Specie	S		
Sapling/Shrub Stratum	30 %			That Are OBL, FA	CW, or FA	C: 33	8.3 %	(A/B)
1.Artemisia tridentata	20	Yes	Not Listed	Prevalence Index	workshe	et:		
2.Baccharis salicifolia	10	No	FAC	Total % Cove	r of:	Multip	ly by:	_
3.				OBL species	3	x 1 =	3	
4.		-	-	FACW species	31	x 2 =	62	
5.				FAC species	15	x 3 =	45	
Total Cover:	30 %			FACU species	5	x 4 =	20	
Herb Stratum	50	V		UPL species	84	x 5 =	420	
1.Bromus diandrus 2.Bromus tectorum	50	Yes No	Not Listed	Column Totals:	138	(A)	550	(B)
3-Ambrosia psilostachya	10 5	No	Not Listed	Prevalence I	ndex = B/	/A =	3.99	
4. Urtica dioica	5	No	FACU FAC	Hydrophytic Veg	etation In	dicators:	, , , ,	
5. Anemopsis californica	3	No	OBL	Dominance T				
6. Avena barbata	2	No	Not Listed	Prevalence In	dex is ≤3.	O ¹		
7. Artemisia dracunculus	2	No	Not Listed	Morphologica				ng
8. Juncus mexicanus	1	No	FACW			n a separate	,	
Total Cover:	78 %		-	Problematic F	iyaropriyu	c vegetation	(Explain	1)
Woody Vine Stratum 1.				¹ Indicators of hyd	ric soil and	d wetland hy	/drology r	must
2.				be present.				
Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum 20 % % Cover of	of Biotic C	Crust	%	Vegetation Present?	Yes (No (
Remarks:								

SOIL Sampling Point: 2B Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Redox Features Color (moist) Color (moist) Texture³ (inches) Type 1 Loc² Remarks 0-42.5Y 4/2 100 sandy clay loam 4-10 2.5Y 2.5/1 100 sandy clay loam ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix. 3Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils: Histosol (A1) 1 cm Muck (A9) (LRR C) Sandy Redox (S5) Histic Epipedon (A2) Stripped Matrix (S6) 2 cm Muck (A10) (LRR B) Black Histic (A3) Loamy Mucky Mineral (F1) Reduced Vertic (F18) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Red Parent Material (TF2) Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other (Explain in Remarks) Redox Dark Surface (F6) 1 cm Muck (A9) (**LRR D**) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) ⁴Indicators of hydrophytic vegetation and Sandy Gleyed Matrix (S4) wetland hydrology must be present. Restrictive Layer (if present): Type: Hardpan Depth (inches): 10"+ **Hydric Soil Present?** No (Yes (Remarks: No hydric soil indicators **HYDROLOGY** Wetland Hydrology Indicators: Secondary Indicators (2 or more required) Primary Indicators (any one indicator is sufficient) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) Drift Deposits (B3) (Riverine) Saturation (A3) Aquatic Invertebrates (B13) Drainage Patterns (B10) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Water Marks (B1) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Thin Muck Surface (C7) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Saturation Visible on Aerial Imagery (C9) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Shallow Aquitard (D3) Water-Stained Leaves (B9) FAC-Neutral Test (D5) Field Observations:

Surface Water Present? Yes (No (Depth (inches): Water Table Present? Yes (No (Depth (inches): Saturation Present? Depth (inches): Yes (No ((includes capillary fringe) Wetland Hydrology Present? $\overline{}$ Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: This point is within Tule Creek, and is a feature in the National Wetland Inventory. Minor bed and bank indicator observed. US Army Corps of Engineers Arid West - Version 11-1-2006

Project/Site: Torrey Wind Project		City/County: Boulevard/San Diego Sampling Date:					3/2018	3
Applicant/Owner:				State:CA Sampling Point: 2C				
Investigator(s): C. Amoaku, P. Schuyler, L. Mobley, J. M	Marcon	Section, T	ownship, Ra	inge:				
Landform (hillslope, terrace, etc.): floodplain		Local reli	ef (concave,	convex, none): None		Slope	e (%): ())
Subregion (LRR):C - Mediterranean California	Lat:	Long: ————————————————————————————————————					: -	
Soil Map Unit Name:				NWI clas	sification:			
Are climatic / hydrologic conditions on the site typical for this t	ime of ye	ear? Yes (• No ((If no, explain	in Remark	s.)		
		disturbed'		"Normal Circumstance	es" present	t? Yes	No	\circ
	-	oblematic?		eeded, explain any an	•	_		
SUMMARY OF FINDINGS - Attach site map sh							ures,	etc.
Hydrophytic Vegetation Present? Yes No			<u> </u>	<u> </u>	<u> </u>			
Hydric Soil Present? Yes No	_	Is	the Sampled	d Area				
Wetland Hydrology Present? Yes No	\sim		thin a Wetla		O N	lo 💿		
Remarks:								
VEGETATION								
	bsolute	Dominan	t Indicator	Dominance Test w	orksheet:	<u> </u>		
-	6 Cover	Species?		Number of Dominar				
1			_	That Are OBL, FAC			((A)
2			_	Total Number of Do	minant			
3				Species Across All	Strata:	3	((B)
4			_	Percent of Dominar	nt Species			
Sapling/Shrub Stratum Total Cover:	%			That Are OBL, FAC	W, or FAC	0.0	% ((A/B)
1. Artemisia tridentata	10	Yes	Not Listed	Prevalence Index	workshee	t:		
2.			-	Total % Cover	of:	Multiply	by:	
3.				OBL species		x 1 =	0	
4.			-	FACW species		x 2 =	0	
5				FAC species		x 3 =	0	
Total Cover:	10 %			FACU species		x 4 =	0	
1.Erodium cicutarium	10	Yes	Not Listed	UPL species	31	x 5 =	155	
2 Hirschfeldia incana	5	Yes	Not Listed Not Listed	Column Totals:	31	(A)	155	(B)
3. Gutierrezia sarothrae	3	No	Not Listed Not Listed	Prevalence In	dex = B/A	\ =	5.00	
4. Bromus tectorum	1	No	Not Listed	Hydrophytic Vege	tation Indi	icators:		
5. Corethrogyne filaginifolia	1	No	Not Listed	Dominance Tes	st is >50%			
6. Heliotropium curassavicum	1	No	Not Listed	Prevalence Ind				
7.				Morphological A		ıs¹ (Provide sı ⊢a separate s		ng
8.				Problematic Hy			,)
Total Cover: Woody Vine Stratum	21 %			Troblematic rry	aropriyao	vegetation (i	_xpiairi,	,
1.				¹ Indicators of hydric	c soil and	wetland hydr	ology r	nust
2.			-	be present.		,	0,	
Total Cover:	%			Hydrophytic				
		ruot	0/	Vegetation	Vac O	No 🙃		
% Bare Ground in Herb Stratum 69 % Cover o	יי טוטנוט כ	uəl 	<u>%</u>	Present?	Yes 🔘	No 💿		
Remarks:								

SOIL Sampling Point: 2C Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Redox Features Color (moist) Loc² Texture³ (inches) Color (moist) Type¹ ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix. 3Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils: Histosol (A1) 1 cm Muck (A9) (LRR C) Sandy Redox (S5) Histic Epipedon (A2) Stripped Matrix (S6) 2 cm Muck (A10) (LRR B) Black Histic (A3) Loamy Mucky Mineral (F1) Reduced Vertic (F18) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Red Parent Material (TF2) Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other (Explain in Remarks) Redox Dark Surface (F6) 1 cm Muck (A9) (**LRR D**) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) ⁴Indicators of hydrophytic vegetation and Sandy Gleyed Matrix (S4) wetland hydrology must be present. Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present? No (Remarks: No soil pit dug because this data station is an upland point for 2A and 2B, which did not have hydric soils. **HYDROLOGY** Wetland Hydrology Indicators: Secondary Indicators (2 or more required) Primary Indicators (any one indicator is sufficient) Water Marks (B1) (Riverine) Surface Water (A1) Salt Crust (B11) Sediment Deposits (B2) (Riverine) High Water Table (A2) Biotic Crust (B12) Drift Deposits (B3) (Riverine) Saturation (A3) Aquatic Invertebrates (B13) Drainage Patterns (B10) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Thin Muck Surface (C7) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Saturation Visible on Aerial Imagery (C9) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Shallow Aquitard (D3) Water-Stained Leaves (B9) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes (No (Depth (inches): Water Table Present? Yes (No (Depth (inches): Saturation Present? Depth (inches): Yes (No (Wetland Hydrology Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

Project/Site: Torrey Wind Project		City/Cou	nty: Bouleva	vard/San Diego Sampling Date: 9/6/2018				8
Applicant/Owner:				State:CA	—— Sar	- :npling Point	3	
Investigator(s): Errin Bergman		Section,	Township, Ra	nge:		_		
Landform (hillslope, terrace, etc.): terrace		Local re	lief (concave,	convex, none): None	•	Slo	pe (%):]	1.5
Subregion (LRR):C - Mediterranean California	Lat:32.7	7107058	5	Long:-116.29355	287	 Datu	ım:	
Soil Map Unit Name: Riverwash						:Riverine		
Are climatic / hydrologic conditions on the site typical for this	time of ve	ear? Yes	No (
	•	disturbed	~	"Normal Circumstand			No	
	-	oblematic		eeded, explain any a		~		
SUMMARY OF FINDINGS - Attach site map sh							atures	, etc.
Hydrophytic Vegetation Present? Yes No	•							
		Is	the Sampled	l Area				
Wetland Hydrology Present? Yes No	$\tilde{\circ}$		rithin a Wetla		0	No 💿		
Remarks: Field Data Point is a non-wetland confirmal supported the southern willow riparian fores herbaceous species. Extent of federal jurisdi	st interm	ixed wit	h big sagebu	sh. Understory is	compose	d of upland		
	Absolute	Domina	nt Indicator	Dominance Test	worksho	at.		
	% Cover		? Status	Number of Domina				
1. Salix laevigata	40	Yes	FACW	That Are OBL, FA				(A)
2			_	Total Number of D Species Across Al		, 3	2	(B)
4.				-		1)	(D)
Total Cover: Sapling/Shrub Stratum	40 %			- Percent of Domina That Are OBL, FA		_	.3 %	(A/B)
1. Artemesia tridentata	20	Yes	UPL	Prevalence Index	workshe	et:		
2.				Total % Cove	r of:	Multipl	y by:	_
3.			 -	OBL species		x 1 =	0	
4.		-		FACW species	40	x 2 =	80	
5.				FAC species		x 3 =	0	
Total Cover:	20 %			FACU species	25	x 4 =	100	
Herb Stratum	25	Vac	LIDI	UPL species	50	x 5 =	250	
1. Bromus tectorum 2. Heliotropium curassavicum	25	Yes No	UPL EACH	Column Totals:	115	(A)	430	(B)
3. Ambrosia psilostachya	15 10	No	FACU FACU	Prevalence I	ndex = B	/A =	3.74	
4. Sisymbrium altissimum	5	No	UPL	Hydrophytic Veg	etation In	dicators:	,	
5.				Dominance To	est is >50	%		
6.				Prevalence In	dex is ≤3.	01		
7.			_	Morphologica	l Adaptatio	ons ¹ (Provide	supporti	ing
8.						on a separate		- \
Total Cover:	55 %			Problematic F	iyaropriyii	c vegetation	(Explair	1)
Woody Vine Stratum				¹ Indicators of hydronical	ric soil an	d wetland hy	drology	muet
1				be present.	iic soii aii	a welland ny	urology	must
2Total Cover:	%		_	Hydrophytic				-
				Vegetation		_		
% Bare Ground in Herb Stratum 25 % % Cover of			<u>%</u>	Present?	Yes (
Remarks: Transitional southern willow scrub with up of annual conditions. (which are non-wetla						nunity is mo	ore indic	cative

SOIL Sampling Point: 3 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features Depth Color (moist) Texture³ (inches) Color (moist) Type 1 Loc² 0 - 2010YR 3/2 N/A N/A Loamy Sand Fluvial sediments ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix. 3Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils: Histosol (A1) 1 cm Muck (A9) (LRR C) Sandy Redox (S5) Histic Epipedon (A2) Stripped Matrix (S6) 2 cm Muck (A10) (LRR B) Black Histic (A3) Loamy Mucky Mineral (F1) Reduced Vertic (F18) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Red Parent Material (TF2) Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other (Explain in Remarks) Redox Dark Surface (F6) 1 cm Muck (A9) (**LRR D**) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) ⁴Indicators of hydrophytic vegetation and Sandy Gleyed Matrix (S4) wetland hydrology must be present. Restrictive Layer (if present): Type: Depth (inches): **Hydric Soil Present?** Yes 📵 Remarks: Soil unit mapped at the point of investigation is Riverwash which is listed as hydric by the NRCS and is an Entisol (a recently deposited fluvial sediment). Entisols/fluvial sediments rarely present hydric field indicators. Guidance for soil lacking hydric indicators is found in the 2008 Supplement Chapter 3, page 27 and states that 'a soil that meets the definition of a hydric soil is hydric whether or not it exhibits indicators' **HYDROLOGY** Wetland Hydrology Indicators: Secondary Indicators (2 or more required) Primary Indicators (any one indicator is sufficient) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Surface Water (A1) Salt Crust (B11) X High Water Table (A2) Biotic Crust (B12) X Drift Deposits (B3) (Riverine) Saturation (A3) Aquatic Invertebrates (B13) Drainage Patterns (B10) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Thin Muck Surface (C7) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Saturation Visible on Aerial Imagery (C9) Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3) Other (Explain in Remarks) Water-Stained Leaves (B9) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes (No (Depth (inches):

Water Table Present? Yes (No (Depth (inches): Unknown Saturation Present? Depth (inches): Yes (No (Wetland Hydrology Present? $\overline{}$ (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: This point is within a small underdeveloped ephemeral channel and is a feature in the National Wetland Inventory. US Army Corps of Engineers Arid West - Version 11-1-2006

Project/Site: Boulder Brush Gen-Tie		City/Count	y: Boulevar	d/San Diego	San	npling Date: 7	/23/2018	
Applicant/Owner:		State			Sam	npling Point: 4	a	
Investigator(s): Callie Amoaku, Mackenzie Forgey		Section, To	ownship, Rai	nge:				
Landform (hillslope, terrace, etc.):		Local relie	f (concave, o	convex, none): No	ne	Slop	oe (%):	
Subregion (LRR):C - Mediterranean California	Lat:			Long:		 Datur	n:	
Soil Map Unit Name:				NWI	classification	:		
Are climatic / hydrologic conditions on the site typical for this ti	ime of ye	ar? Yes	No C	(If no, expl	ain in Remar	ks.)		_
	-	disturbed?		Normal Circumsta	ances" prese	nt? Yes	No 🔘	
	•	oblematic?		eded, explain any	•	\sim		
SUMMARY OF FINDINGS - Attach site map sh							tures, etc) .
Hydrophytic Vegetation Present? Yes No								
Hydric Soil Present? Yes No	•	ls t	he Sampled	Area				
Wetland Hydrology Present? Yes No			hin a Wetlan	nd? Ye	s 🔘	No 💿		
Remarks: Sample point on top of bank from willows in	n chann	el.						
VEGETATION								
	bsolute	Dominant		Dominance Tes	st workshee	t:		
	6 Cover	Species?	Status	Number of Dom			(A)	
1. 2.				That Are OBL, F	ACW, OF FA	.C: 2	(A)	
3.				Total Number of Species Across		3	(B)	
4.						1	(6)	
Total Cover:	%			Percent of Dom That Are OBL, F		_	7 % (A/B)	١
Sapling/Shrub Stratum					·	00.	/ /0 (/02)	'
1.				Prevalence Ind				
2				Total % Co	ver or: 40	Multiply x 1 =	40	
3. 4.				FACW species	80	x 2 =	160	
5.				FAC species	5	x 3 =	15	
Total Cover:	%			FACU species	20	x 4 =	80	
Herb Stratum				UPL species	5	x 5 =	25	
1. Juncus mexicanus	80	Yes	FACW	Column Totals:	150	(A)	320 (B	3)
2-Anemopsis californica	40	Yes	OBL	Provolono	e Index = B/	Λ -	2.12	
3. Ambrosia psilostachya	20	Yes	FACU	Hydrophytic Ve			2.13	
4-Bromus diandrus		No	UPL	→ Dominance	-			
5. Distichlis spicata 6.		No	FAC	, *	Index is ≤3.0			
7.						ns¹ (Provide :	supporting	
8.						n a separate	•	
Total Cover:	150%			Problemation	Hydrophytic	c Vegetation ¹	(Explain)	
Woody Vine Stratum	130 /0			1				
1				¹ Indicators of hybe present.	ydric soil and	d wetland hyd	Irology must	
Z	0/			Hydrophytic				_
Total Cover:	%			Vegetation				
% Bare Ground in Herb Stratum % Cover o	f Biotic C	rust	%	Present?	Yes 💿	No 🔘		
Remarks:								

SOIL Sampling Point: 4a Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix Redox Features

Type: C=Concentration, D=Depletion, RM=Reduced Matrix *\text{Location: PL=Pore Lining, RC=Root Channel, M=Matrix.}	(inches)	Color (moist)		Color (moist)	%	_ I ype '	Loc	l extu	ıre	Remarks	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix. *Location: PL=Pore Lining, RC=Root Channel, M=Matrix. *Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay, Loam, Sandy Loam, Clay Loam, Silt Loam, Silt Loam, Silt Loam, Silt Loam, Silt Loam, Sand, Sand, Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histos Epideon (A2)	0-12	7.5YR 2.5/1	100					Loam			
**Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand, Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)					. —— -			-	· · · · · · · · · · · · · · · · · · ·		
**Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt, Loamy Sand, Sand, Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)											
**Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt, Loamy Sand, Sand, Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)											
**Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt, Loamy Sand, Sand, Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	-										
**Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt, Loamy Sand, Sand, Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)											
**Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt, Loamy Sand, Sand, Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)											
**Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt, Loamy Sand, Sand, Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)											
**Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt, Loamy Sand, Sand, Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		<u> </u>									
**Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt, Loamy Sand, Sand, Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)											
**Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt, Loamy Sand, Sand, Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)											
**Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt, Loamy Sand, Sand, Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	1Typo: C=C	Concentration D=Dept	lotion DM-D	aduand Matrix	21 continu	. DI =Doro	Lining D	C=Doot (Channal M-N	Actrix	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histic Epipedon (A2)		·									Canal Canal
Histosol (A1)		<u> </u>				ndy Loam	, Clay Loai			<u>-</u>	sano, Sano.
Stripped Matrix (S6)			e to all LRRs,							-	
Black Histic (A3)	Histoso	ol (A1)		Sandy Redo	x (S5)			1	I cm Muck (A	9) (LRR C)	
Hydrogen Sulfide (A4)	Histic E	Epipedon (A2)		Stripped Ma	atrix (S6)				2 cm Muck (A	10) (LRR B)	
Statified Layers (A5) (LRR C)	Black H	Histic (A3)		Loamy Muc	ky Mineral	(F1)		☐ F	Reduced Vert	ic (F18)	
Statified Layers (A5) (LRR C)	Hydrog	jen Sulfide (A4)		Loamy Gley	ed Matrix	(F2)		∏ F	Red Parent M	aterial (TF2)	
Carm Muck (A9) (LRR D)	Stratifie	ed Layers (A5) (LRR C	>)					H	Other (Explain	n in Remarks)	
Depleted Below Dark Surface (A11)			,	Redox Dark	Surface (F6)					
Thick Dark Surface (A12)			e (A11)		•	•					
Sandy Mucky Mineral (S1)			/								
Sandy Gleyed Matrix (S4) wetland hydrology must be present.	l 📖	` ,				0)		⁴ Indic	eators of hydr	onhytic vegetation an	d
Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present? Yes No No Hydric Soil Present? Yes No Hydric Soil Present? Yes No Hydric Soil Present? Yes No Hydric Soil Present? Yes No Hydric Soil Present? Yes No Hydric Soil Present? Yes No Hydric Soil Present? Yes No Hydric Soil Present? Yes No Hydric Soil Present? Yes No No Hydric Soil Present? Yes No No Hydric Soil Present? Yes No No No Hydric Soil Present? Yes No No No Hydric Soil Present? Yes No No No Hydric Soil Present? Yes No Depth (inches): Hydric Soil Present? Yes No Depth (inches): Water Marks (B1) (Riverine) Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine)				vernari oor	3 (1 3)						u
Type: Depth (inches): Remarks: Hydric Soil Present? Yes								1	elianu nyurok	bgy must be present.	
Pepth (inches): Remarks: Hydric Soil Present? Yes	Restrictive	Layer (if present):									
Remarks: AyDROLOGY Wetland Hydrology Indicators: Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Surface Water (A1) Salt Crust (B11) Sediment Deposits (B2) (Riverine) Saturation (A3) Drainage Patterns (B10) Dry-Season Water Table (A2) Saturation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (B7) Other (Explain in Remarks) FAC-Neutral Test (D5) Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Type:										
AyDROLOGY Wetland Hydrology Indicators: Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Surface Water (A1) Salt Crust (B11) Sediment Deposits (B2) (Riverine) Sturation (A3) Aquatic Invertebrates (B13) Drainage Patterns (B10) Dry-Season Water Table (A2) Sediment Deposits (B2) (Riverine) Dry-Season Water Table (C2) Sediment Deposits (B2) (Riverine) Dry-Season Water Table (C2) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Thin Muck Surface (C7) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Saturation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Shallow Aquitard (D3) FAC-Neutral Test (D5)	Depth (ii	nches):						Hydric	c Soil Preser	nt? Yes 🔘 🔝 I	No 💿
### Approach	Remarks:	<u> </u>									
Wetland Hydrology Indicators: Secondary Indicators (2 or more required) Primary Indicators (any one indicator is sufficient)	rtemanto.										
Wetland Hydrology Indicators: Secondary Indicators (2 or more required) Primary Indicators (any one indicator is sufficient) Water Marks (B1) (Riverine) Surface Water (A1) Sediment Deposits (B2) (Riverine) High Water Table (A2) Biotic Crust (B12) Drift Deposits (B3) (Riverine) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Thin Muck Surface (C7) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Saturation Visible on Aerial Imagery (C9) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Shallow Aquitard (D3) Water-Stained Leaves (B9) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes No • Depth (inches): Sutration Present? Yes No • Depth (inches): Wetland Hydrology Present? Yes No • Depth (inches): Global Stream gauge, monitoring well, aerial photos, previous inspections), if available:											
Wetland Hydrology Indicators: Secondary Indicators (2 or more required) Primary Indicators (any one indicator is sufficient) Water Marks (B1) (Riverine) Surface Water (A1) Sediment Deposits (B2) (Riverine) High Water Table (A2) Biotic Crust (B12) Drift Deposits (B3) (Riverine) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Thin Muck Surface (C7) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Saturation Visible on Aerial Imagery (C9) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Shallow Aquitard (D3) Water-Stained Leaves (B9) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes No • Depth (inches): Sutration Present? Yes No • Depth (inches): Wetland Hydrology Present? Yes No • Depth (inches): Global Stream gauge, monitoring well, aerial photos, previous inspections), if available:											
Wetland Hydrology Indicators: Secondary Indicators (2 or more required) Primary Indicators (any one indicator is sufficient) Water Marks (B1) (Riverine) Surface Water (A1) Sediment Deposits (B2) (Riverine) High Water Table (A2) Biotic Crust (B12) Drift Deposits (B3) (Riverine) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Thin Muck Surface (C7) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Saturation Visible on Aerial Imagery (C9) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Shallow Aquitard (D3) Water-Stained Leaves (B9) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes No • Depth (inches): Sutration Present? Yes No • Depth (inches): Wetland Hydrology Present? Yes No • Depth (inches): Gincludes capillary fringe) Wetland Hydrology Present? Yes No • Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:											
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Primary Indicators (any one indicator is sufficient) Surface Water (A1) Salt Crust (B11) Sediment Deposits (B2) (Riverine) Saturation (A3) Aquatic Invertebrates (B13) Drainage Patterns (B10) Sediment Deposits (B2) (Riverine) Sediment Deposits (B2) (Riverine) Sediment Deposits (B2) (Riverine) Sediment Deposits (B2) (Nonriverine) Sediment Deposits (B3) (Nonriverine) Sediment Deposits (B3) (Nonriverine) Sediment Deposits (B3) (Nonriverine) Sediment Deposits (B3) (Nonriverine) Sediment Deposits (B3) (Nonriverine) Sediment Deposits (B3) (Nonriverine) Sediment Deposits (B3) (Nonriverine) Sediment Deposits (B3) (Nonriverine) Sediment Deposits (B3) (Nonriverine) Sediment Deposits (B3) (Nonriverine) Sediment Deposits (B3) (Nonriverine) Sediment Deposits (B10) Sediment Deposits (B10) Sediment Deposits (B10) Sediment Deposits (B10) Sediment Deposits (B10) Sediment Deposits (B10) Sediment Deposits (B10) Sediment Deposits (B10) Sediment Deposits (B2) (Riverine) Sediment Deposits (B10	Wetland Hy	vdrology Indicators:							Secondary In	dicators (2 or more re	equired)
Surface Water (A1) Salt Crust (B11) Sediment Deposits (B2) (Riverine) High Water Table (A2) Biotic Crust (B12) Drift Deposits (B3) (Riverine) Saturation (A3) Aquatic Invertebrates (B13) Drainage Patterns (B10) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Thin Muck Surface (C7) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Saturation Visible on Aerial Imagery (C9) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Shallow Aquitard (D3) Water-Stained Leaves (B9) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): No Depth (inche	_			4\						`	<u> </u>
High Water Table (A2) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B2) (Nonriverine) Drift Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Drift Deposits (B3) (Nonriverine) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Person No	Primary ind	licators (any one indica	ator is sufficie								
Saturation (A3)	Surface	e Water (A1)		Salt Crust	(B11)				Sedimen	t Deposits (B2) (Rive	rine)
Water Marks (B1) (Nonriverine)	High W	/ater Table (A2)		Biotic Crus	st (B12)				Drift Dep	osits (B3) (Riverine)	
Water Marks (B1) (Nonriverine)	Saturat	tion (A3)		Aquatic In	vertebrates	s (B13)			Drainage	Patterns (B10)	
Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	🗀	` '	ne)			` ,					
Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Ves No Depth (inches): Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Field Observations: Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	l						Livina Poo	nts (C3)			
Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Saturation Visible on Aerial Imagery (C9) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Shallow Aquitard (D3) Water-Stained Leaves (B9) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Wetland Hydrology Present? Yes No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		. , ,	,	<u></u>		_	-	no (00)		` '	
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Shallow Aquitard (D3) Water-Stained Leaves (B9) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Wetland Hydrology Present? Yes No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			ine)			`	,			` ,	
Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Surface	e Soil Cracks (B6)		Recent Iro	n Reduction	on in Plow	ed Soils (0	C6)	Saturatio	n Visible on Aerial Im	agery (C9)
Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Inunda	tion Visible on Aerial In	magery (B7)	Other (Exp	olain in Re	marks)		ĺ	Shallow	Aquitard (D3)	
Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Water-	Stained Leaves (B9)		_					FAC-Neu	utral Test (D5)	
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		, ,							ш	. ,	
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			no O N-	Donth /:-	choc):						
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			_	~	· 		_				
(includes capillary fringe) Wetland Hydrology Present? Yes No Pescribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Water Table	e Present? Ye	es 🔘 No	Depth (inc	ches):						
(includes capillary fringe) Wetland Hydrology Present? Yes No (Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Saturation F	Present? Ye	es 🔘 No	Depth (included)	ches):						
		apillary fringe)						•	••	ent? Yes (No 🕑
Remarks:	Describe Ro	ecorded Data (stream	gauge, monit	toring well, aerial p	ohotos, pre	evious ins	pections),	if availab	ole:		
Remarks:											
	Remarks:										
	rtemanto.										
	ricinano.										
	remano.										
	remarks.										
IS Army Corns of Engineers	remaine.										

Project/Site: Boulder Brush Gen-Tie	:		City/Cou	ınty: Bouleva	rd/San Diego	Sa	ampling Date:	7/23/20	18
Applicant/Owner:					State:CA	Sa	ampling Point	: 1b	
Investigator(s): Callie Amoaku, Mack	kenzie Forgey		Section,	Township, Ra	ange:				
Landform (hillslope, terrace, etc.):			Local re	elief (concave,	convex, none): Non	ie	SI	lope (%):	
Subregion (LRR):C - Mediterranean C	California	Lat:		,	Long:	<u></u>		' ` ′ _ tum:	
Soil Map Unit Name:	- Allifornia					assificatio			
· -	a site tunical for thi	a time of va	or? Voo	O No.					
Are climatic / hydrologic conditions on th		-					,	S No.	
		significantly			"Normal Circumstar	•	_) NO	0
Are Vegetation Soil or Hy	ydrology r	naturally pro	oblematio	c? (If n	eeded, explain any a	ınswers II	n Remarks.)		
SUMMARY OF FINDINGS - At	tach site map s	showing	sampl	ling point l	ocations, trans	ects, in	nportant fo	eatures,	, etc.
Hydrophytic Vegetation Present?	Yes 🕟 N	lo 📵							
Hydric Soil Present?	_	lo 🕟		s the Sample	d Area				
Wetland Hydrology Present?		lo 🌀		vithin a Wetla			No (
Remarks: Upland sample point asso	ociated with DS	1a.							
VEGETATION									
To Observe (III a single singl		Absolute		nt Indicator	Dominance Test	worksh	eet:		
Tree Stratum (Use scientific names.)		% Cover 5	Species		Number of Domir			0	(A)
1. <u>Quercus agrifolia</u> 2.			Yes	UPL	That Are OBL, FA	(CVV, Or F	AC:	0	(A)
3.					Total Number of I		1	2	(D)
4.					Species Across A	ii Strata.		3	(B)
	Total Cove	er: 5 %			Percent of Domin			2.0.04	(A (D)
Sapling/Shrub Stratum	Total Cove	J /0			That Are OBL, FA	(CVV, OI F	-AC. (0.0 %	(A/B)
1 Artemisia tridentata		10	Yes	UPL	Prevalence Inde	x worksh			
2					Total % Cove	er of:	Multi	ply by:	-
3					OBL species	5	x 1 =	5	
4					FACW species	5	x 2 =	10	
5		10.00		 -	FAC species FACU species		x 3 =	0	
Herb Stratum	Total Cove	r: 10 %			UPL species	7	x 4 = x 5 =	28	
1.Bromus tectorum		50	Yes	UPL		70		350	(D)
2.Bromus diandrus		5	No	UPL	_ Column Totals:	87	(A)	393	(B)
3. Heliotropium curassavicum			No	FACU	Prevalence	Index =	B/A =	4.52	
4. Juncus mexicanus		5	No	FACW	Hydrophytic Vec	jetation l	Indicators:		
5. Anemopsis californica		5	No	OBL	Dominance 1				
6. Ambrosia psilostachya		2	No	FACU	Prevalence I				
7.					Morphologica		tions¹ (Provid ron a separat		ng
8.					Problematic		•		1)
Woody Vine Stratum	Total Cove	r: 72 %			residinates	iya.op.iy	no vogotatio	· (Explain	',
1.					¹ Indicators of hyd	dric soil a	ind wetland h	vdrology	must
2.		_			be present.			,	
<u></u>	Total Cove	r: %			Hydrophytic				
N/ David Consumal in Hards Observation			S 4		Vegetation		· · ·	$\overline{}$	
% Bare Ground in Herb Stratum	% Cove	r of Biotic C	rust	<u>%</u>	Present?	Yes () No (9	
Remarks:									

SOIL Sampling Point: 1b Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix Redox Features (inches) __Texture³ Color (moist) Color (moist) % Type¹ Loc² Remarks 0-12 7.5YR 2.5/1 100 Loam

¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ² Location: PL=Pore Lining, R0	C=Root Channel M=Matrix
³ Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils:
Histosol (A1) Sandy Redox (S5)	1 cm Muck (A9) (LRR C)
Histic Epipedon (A2) Stripped Matrix (S6)	2 cm Muck (A10) (LRR B)
Black Histic (A3) Loamy Mucky Mineral (F1)	Reduced Vertic (F18)
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)	Red Parent Material (TF2)
Stratified Layers (A5) (LRR C) Depleted Matrix (F3)	Other (Explain in Remarks)
1 cm Muck (A9) (LRR D) Redox Dark Surface (F6)	
Depleted Below Dark Surface (A11) Depleted Dark Surface (F7)	
Thick Dark Surface (A12) Redox Depressions (F8)	
Sandy Mucky Mineral (S1) Vernal Pools (F9)	⁴Indicators of hydrophytic vegetation and
Sandy Gleyed Matrix (S4)	wetland hydrology must be present.
Restrictive Layer (if present):	
Type:	
Depth (inches):	Hydric Soil Present? Yes No No
Remarks:	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
	Water Marks (B1) (Riverine)
Primary Indicators (any one indicator is sufficient)	<u> </u>
Surface Water (A1) Salt Crust (B11)	Sediment Deposits (B2) (Riverine)
High Water Table (A2) Biotic Crust (B12)	Drift Deposits (B3) (Riverine)
Saturation (A3) Aquatic Invertebrates (B13)	Drainage Patterns (B10)
Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)
Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roo	
Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (Control of the C	C6) Saturation Visible on Aerial Imagery (C9)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No Depth (inches):	
Saturation Present? Voc C No C Depth (inches):	
(includes capillary fringe) Wetla	and Hydrology Present? Yes O No O
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections),	if available:
Remarks:	
US Army Corps of Engineers	
	Arid West - Version 11-1-2006

Project/Site: Boulder Brush Gen-Tie		City/Cour	nty: Bouleva	rd/San Diego	San	npling Date:	7/23/201	18
Applicant/Owner:				State:CA	San	npling Point:	4c	
Investigator(s): Callie Amoaku, Mackenzie Forgey		Section,	Township, Ra	ange:		-		
Landform (hillslope, terrace, etc.):		Local rel	ief (concave,	convex, none): Non	e	Slo	ope (%):	
Subregion (LRR):C - Mediterranean California	Lat:			Long:		Date	um:	
Soil Map Unit Name:				NWI cla	assification	:		
Are climatic / hydrologic conditions on the site typical for this	s time of ye	ar? Yes	No ((If no, explai	n in Remai	ks.)		
Are Vegetation Soil or Hydrology s	ignificantly	disturbed	? Are	"Normal Circumstan	ces" prese	nt? Yes 🕞	No	0
Are Vegetation Soil or Hydrology n	aturally pro	oblematic1	? (If n	eeded, explain any a	nswers in	Remarks.)		
SUMMARY OF FINDINGS - Attach site map s	showing	sampli	ng point l	ocations, trans	ects, im _l	oortant fe	atures,	etc.
Hydrophytic Vegetation Present? Yes N	o 🔘							
	0 📵	Is	the Sample	d Area				
Wetland Hydrology Present? Yes Remarks:	0 🔘	wi	thin a Wetla	nd? Yes	0	No 💿		
VEGETATION								
	Absolute		t Indicator	Dominance Test	workshee	t:		
Tree Stratum (Use scientific names.)	% Cover	Species'		Number of Domin				
1.Salix laevigata	60	Yes	FACW	That Are OBL, FA	CW, or FA	C:	l	(A)
2. 3.			_	Total Number of D Species Across A			3	(B)
4.			_	= `			3	(D)
Total Cove Sapling/Shrub Stratum	r: 60 %			Percent of Domin That Are OBL, FA		_	3.3 %	(A/B)
1. Artemisia tridentata	5	Yes	UPL	Prevalence Inde	x workshe	et:		
2. Quercus agrifolia (sapling)	1	No	UPL	Total % Cove	er of:	Multip	oly by:	_
3.				OBL species	5	x 1 =	5	
4.				FACW species	65	x 2 =	130	
5	-		_	FAC species		x 3 =	0	
Total Cover Herb Stratum	6 %			FACU species	40	x 4 =	160	
1. Ambrosia psilostachya	40	Yes	FACU	UPL species	8	x 5 =	40	(D)
2-Anemopsis californica	5	No	OBL	_ Column Totals:	118	(A)	335	(B)
3. Juncus mexicanus	5	No	FACW	Prevalence	Index = B	'A =	2.84	
4. Apium graveolens	1	No	UPL	Hydrophytic Veg	etation In	dicators:		
5. Artemisia dracunculus	1	No	UPL	Dominance T				
6.			_	× Prevalence Ir				
7		·		Morphologica		ons' (Provide on a separat		ng
8.			_	Problematic I				1)
Total Cover Woody Vine Stratum	52 %					Ū		,
1.				¹ Indicators of hydbe be present.	Iric soil an	d wetland h	ydrology r	must
2			_					
Total Cover				Hydrophytic Vegetation	_		_	
	of Biotic C	Crust	<u>%</u>	Present?	Yes 💿	No ()	
Remarks:								

SOIL Sampling Point: 4c Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Redox Features Color (moist) Color (moist) Texture³ (inches) Type¹ Loc² 0 - 1210YR 2/2 2.5YR 3/6 1 C PLLoam ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix. 3Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils: Histosol (A1) 1 cm Muck (A9) (LRR C) Sandy Redox (S5) Histic Epipedon (A2) Stripped Matrix (S6) 2 cm Muck (A10) (LRR B) Black Histic (A3) Loamy Mucky Mineral (F1) Reduced Vertic (F18) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Red Parent Material (TF2) Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other (Explain in Remarks) Redox Dark Surface (F6) 1 cm Muck (A9) (**LRR D**) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) ⁴Indicators of hydrophytic vegetation and Sandy Gleyed Matrix (S4) wetland hydrology must be present. Restrictive Layer (if present): Type: Depth (inches): **Hydric Soil Present?** No (Yes (Remarks: **HYDROLOGY** Wetland Hydrology Indicators: Secondary Indicators (2 or more required) Primary Indicators (any one indicator is sufficient) Water Marks (B1) (Riverine) Surface Water (A1) Salt Crust (B11) Sediment Deposits (B2) (Riverine) High Water Table (A2) Biotic Crust (B12) Drift Deposits (B3) (Riverine) Saturation (A3) Aquatic Invertebrates (B13) Drainage Patterns (B10) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Thin Muck Surface (C7) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water-Stained Leaves (B9) FAC-Neutral Test (D5) Field Observations:

Surface Water Present? Yes (No (Depth (inches): Water Table Present? Yes (No (Depth (inches): Saturation Present? Depth (inches): Yes (No (Wetland Hydrology Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Oxidized rhizospheres along dead roots only. US Army Corps of Engineers Arid West - Version 11-1-2006

Project/Site: Boulder Brush Gen-Tie			City/Co	unty: Bouleva	rd/San Diego	Sa	ampling Date:	7/23/20	18
Applicant/Owner:					State:CA	Sa	ampling Point:	4d	
Investigator(s): Callie Amoaku, Mackenzie	Forgey		Section	ı, Township, Ra	ange:		•		
Landform (hillslope, terrace, etc.):			Local r	elief (concave,	convex, none): Nor	——— 1е	Slo	ope (%):	
Subregion (LRR):C - Mediterranean Californ	———— nia	Lat:	•	,	Long:		———— Dati	· · · -	
Soil Map Unit Name:						lassification			
Are climatic / hydrologic conditions on the site t	waisal for this	time of ve	2 Va	o 🕟 No /					
		-						N-	
Are Vegetation Soil or Hydrology		gnificantly			"Normal Circumstar	•	~) NO	\circ
Are Vegetation Soil or Hydrology	/ na	aturally pro	oblemati	ic? (If n	eeded, explain any	answers II	n Remarks.)		
SUMMARY OF FINDINGS - Attach s	site map sl	howing	samp	ling point l	ocations, trans	ects, in	nportant fe	atures	, etc.
Hydrophytic Vegetation Present? Yes	No No								
	_			Is the Sample	d Area				
·	\sim			within a Wetla			No (•)		
Remarks:									
VECETATION									
VEGETATION		Absolute	Domin	ant Indicator	Dominance Tes	t workeh	not:		
Tree Stratum (Use scientific names.) 1.	· -	% Cover	Specie		Number of Domin	nant Spec	ies	2	(A)
2. 3.					Total Number of Species Across A			3	(B)
4.					-				,
Capling/Chruh Stratum	Total Cover:	%			 Percent of Domir That Are OBL, F. 			5.7 %	(A/B)
Sapling/Shrub Stratum 1. Artemisia tridentata		5	Yes	UPL	Prevalence Inde	y workst	neet:		
2. Baccharis salicifolia			No	FAC	Total % Cov		Multip	olv bv:	
3.		1	- 110		OBL species	5	x 1 =	5	_
4.					FACW species	80	x 2 =	160	
5.					FAC species	81	x 3 =	243	
	Total Cover:	6 %			FACU species	10	x 4 =	40	
Herb Stratum					UPL species	5	x 5 =	25	
1 Juncus mexicanus		80	Yes	FACW	Column Totals:	181	(A)	473	(B)
2. Distichlis spicata		80	Yes	FAC	Prevalence	Index =	R/Δ =	2.61	
3. Ambrosia psilostachya		10	No	FACU	Hydrophytic Ve			2.01	
4. Anemopsis californica 5.		5	No	OBL	> Dominance	-			
6.			-		→ Prevalence I				
7.			-				tions¹ (Provide	e supporti	ing
8.	·						on a separat		
·	Total Cover:	1750/		 -	Problematic	Hydrophy	tic Vegetation	¹ (Explair	า)
Woody Vine Stratum		175%							
1					¹ Indicators of hydelete be present.	dric soil a	nd wetland h	ydrology	must
2									
	Total Cover:	%			Hydrophytic Vegetation				
% Bare Ground in Herb Stratum 0%	% Cover	of Biotic C	Crust	%	Present?	Yes (No (\supset	
Remarks:									

SOIL Sampling Point: 4d Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Redox Features Color (moist) Color (moist) Type¹ Loc² Texture³ (inches) Remarks 7.5YR 2.5/1 100 0 - 12Loam ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix. 3Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils: Histosol (A1) Sandy Redox (S5) 1 cm Muck (A9) (**LRR C**) Histic Epipedon (A2) Stripped Matrix (S6) 2 cm Muck (A10) (LRR B) Black Histic (A3) Loamy Mucky Mineral (F1) Reduced Vertic (F18) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Red Parent Material (TF2) Depleted Matrix (F3) Other (Explain in Remarks) Stratified Layers (A5) (LRR C) 1 cm Muck (A9) (**LRR D**) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) ⁴Indicators of hydrophytic vegetation and Sandy Gleyed Matrix (S4) wetland hydrology must be present. Restrictive Layer (if present): Type: Depth (inches): **Hydric Soil Present?** Yes (No (•)

Remarks:	,
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)	Water Marks (B1) (Riverine)
Surface Water (A1) Salt Crust (B11)	Sediment Deposits (B2) (Riverine)
High Water Table (A2) Biotic Crust (B12)	Drift Deposits (B3) (Riverine)
Saturation (A3) Aquatic Invertebrates (B13)	▼ Drainage Patterns (B10)
Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)
Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Livi	
Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Surface Soil Cracks (B6) Recent Iron Reduction in Plowed	
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No Depth (inches):	
Saturation Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	tions), if available:
Remarks: Tule Creek floodplain	
US Army Corps of Engineers	
7 F	A : 11M
	Arid West - Version 11-1-2006

Project/Site: Boulder Brush Gen-Tie		City/Count	y: Bouleva	rd/San Diego	Sar	mpling Date:	7/23/201	18
Applicant/Owner:				State:CA	 Sar	npling Point:	4e	
Investigator(s): Callie Amoaku, Mackenzie Forgey		Section, T	ownship, Ra	inge:				
Landform (hillslope, terrace, etc.): floodplain		Local relie	ef (concave,	convex, none): None	e	SI	ope (%):	
Subregion (LRR):C - Mediterranean California	Lat:			Long:		 Dat	um:	
Soil Map Unit Name:					ssification	n:		
Are climatic / hydrologic conditions on the site typical for this	time of ve	ear? Yes (• No (
	-	disturbed?		"Normal Circumstand		,) No	\circ
		oblematic?		eeded, explain any a	•		, 140	\circ
Are Vegetation Soil or Hydrology Summary OF FINDINGS - Attach site map s			,	, ,		ŕ	atures	etc
			.g po					
	o	lo t	ha Campla	d Aroa				
1	0		he Sampled hin a Wetla		\circ	No (•)		
Remarks:		WIL	illii a vvetia	10: 163	<u> </u>	140		
VEGETATION								
	Absolute		Indicator	Dominance Test	workshee	et:		
Tree Stratum (Use scientific names.)	% Cover	Species?	Status	Number of Domina				
1.none				That Are OBL, FA	CW, or FA	AC:	2	(A)
2	-		-	Total Number of D				(D)
3				Species Across A	l Strata:		3	(B)
4			-	Percent of Domina		-		
Total Cover Sapling/Shrub Stratum	r: %			That Are OBL, FA	CW, or FA	AC: 60	6.7 %	(A/B)
1.Salix laevigata	5	Yes	FACW	Prevalence Index	workshe	et:		
2. Artemisia tridentata	5	Yes	UPL	Total % Cove	r of:	Multip	oly by:	_
3. Baccharis pilularis	3	No	UPL	OBL species	2	x 1 =	2	
4. Baccharis salicifolia	1	No	FAC	FACW species	15	x 2 =	30	
5				FAC species	52	x 3 =	156	
Total Cover: Herb Stratum	14 %			FACU species	8	x 4 =	32	
1. Asclepias fascicularis	1	No	FAC	UPL species	16	x 5 =	80	(5)
2-Ambrosia psilostachya	8	No	FACU	Column Totals:	93	(A)	300	(B)
3. Bromus diandrus	$-\frac{6}{5}$	No	UPL	Prevalence I	ndex = B	/A =	3.23	
4. Distichlis spicata	50	Yes	FAC	Hydrophytic Veg	etation In	dicators:		
5.Hirschfeldia incana	$-\frac{30}{1}$	No	UPL	★ Dominance T	est is >50	%		
6. Anemopsis californica	2	No	OBL	Prevalence In	dex is ≤3.	O ¹		
7. Juncus mexicanus	10	No	FACW	Morphologica				ng
8. Heliotropium curassavicum var. oculatum	2	No	UPL			on a separat		
Total Cover	79 %	-	-	Problematic F	iyaropriyu	c vegetation	ı (Expiain	1)
Woody Vine Stratum	,			¹ Indicators of hyd	ric coil an	d watland h	vdrology r	muet
1			-	be present.	iic soii aii	u wellanu n	yurology i	must
Total Cover:	: %		-	Hydrophytic				
% Bare Ground in Herb Stratum % % Cover	of Biotic C	Crust	%	Vegetation Present?	Yes (No (•	
Remarks:				1		~		

SOIL Sampling Point: 4e

Profile Des	scription: (Describe Matrix	to the depth n		nent the indica	tor or confir	m the absence of inc	dicators.)
Depth (inches)	Color (moist)	% C	Color (moist)	k Features % Typ	e ¹ Loc ²	Texture ³	Remarks
0-10	10 YR 2/2	100	,			sandy loam	-
0-10	10 11(2/2					- Sanay 10am	
	- · ·	- · ·		- · <u></u> · <u></u>			
-		· · · · · · · · · · · · · · · · · · ·		·		·	
	- · 						
	_						
• .	Concentration, D=Dep				-	RC=Root Channel, M=	
					oam, Clay Lo		Silt Loam, Silt, Loamy Sand, Sand
	Indicators: (Applicab	le to all LRRs, ι		· ·			oblematic Hydric Soils⁴:
Histoso	` '		Sandy Redo	. ,		`	A9) (LRR C)
	Epipedon (A2) Histic (A3)		Stripped Ma	atrix (S6) ky Mineral (F1)		Reduced Ve	A10) (LRR B)
	gen Sulfide (A4)			red Matrix (F2)			Material (TF2)
	ed Layers (A5) (LRR (3)	Depleted M	, ,			nin in Remarks)
\Box	luck (A9) (LRR D)	-,	ш .	Surface (F6)			,
	ed Below Dark Surfac	e (A11)	Depleted D	ark Surface (F7)		
Thick [Dark Surface (A12)		Redox Dep	ressions (F8)			
	Mucky Mineral (S1)		Vernal Pool	s (F9)			drophytic vegetation and
	Gleyed Matrix (S4)					wetland hydro	plogy must be present.
	Layer (if present):						
Type:			_				
Depth (ii	nches):					Hydric Soil Prese	ent? Yes No 💿
Remarks:							
HYDROLO	OGY						
Wetland H	ydrology Indicators:					Secondary	Indicators (2 or more required)
	licators (any one indic	ator is sufficien	t)				Marks (B1) (Riverine)
	e Water (A1)		Salt Crust	(B11)			ent Deposits (B2) (Riverine)
	/ater Table (A2)		Biotic Crus	. ,		ш	eposits (B3) (Riverine)
_ `	tion (A3)			vertebrates (B1	3)		ge Patterns (B10)
	Marks (B1) (Nonriver	ine)	ш .	Sulfide Odor (C	,		ason Water Table (C2)
	ent Deposits (B2) (No			Rhizospheres al			uck Surface (C7)
	eposits (B3) (Nonrive	•		of Reduced Iron			h Burrows (C8)
	e Soil Cracks (B6)	-,		n Reduction in	` '		ion Visible on Aerial Imagery (C9)
	tion Visible on Aerial I	magery (B7)		olain in Remark		· · · · .	v Aquitard (D3)
	Stained Leaves (B9)	3, , ,	()		,		eutral Test (D5)
Field Obse							· , ,
		es (No (Depth (in	ches):			
Water Table		es No (· · · · · · · · · · · · · · · · · · ·			
Saturation I		_	~	· ———			
	apillary fringe)	es No (Depth (in		Wet	tland Hydrology Pres	sent? Yes No
	ecorded Data (stream	gauge, monito	ring well, aerial	ohotos, previou	s inspections)	, if available:	
Remarks:T	ule Creek floodplai	n					
•	are creek moodplan						
S Army Cori	ps of Engineers						

Project/Site: Boulder Brush Gen-Tie		City/Count	y: Boulevai	rd/San Diego	San	npling Date:	7/23/2018	8
Applicant/Owner:				State:CA	San	npling Point:	4f	
Investigator(s): Callie Amoaku, Mackenzie Forgey		Section, T	ownship, Ra	nge:		-		
Landform (hillslope, terrace, etc.):		Local relie	ef (concave,	convex, none): No	ne	Slo	ope (%):	
Subregion (LRR):C - Mediterranean California	Lat:			Long:		 Dat	um:	
Soil Map Unit Name:				NWI	classification	<u> </u>		
Are climatic / hydrologic conditions on the site typical for this ti	ime of ye	ar? Yes (No ((If no, expl	ain in Remai	rks.)		
Are Vegetation Soil or Hydrology sign	nificantly	disturbed?	Are '	Normal Circumsta	nces" prese	nt? Yes	No (\supset
Are Vegetation Soil or Hydrology nat	urally pro	oblematic?	(If ne	eded, explain any	answers in	Remarks.)		
SUMMARY OF FINDINGS - Attach site map sh	owing	samplin	ng point lo	ocations, trans	sects, im _l	portant fe	atures, e	etc.
Hydrophytic Vegetation Present? Yes No	•							
Hydric Soil Present? Yes No	~	ls t	he Sampled	Area				
Wetland Hydrology Present? Yes No	•	wit	hin a Wetlar	nd? Ye	s 🔿	No 💿		
Remarks: Upland point for DS 1e.								
VEGETATION								
	bsolute	Dominant	Indicator	Dominance Tes	ot workoboo			
	6 Cover	Species?		Number of Dom				
1.				That Are OBL, F			0 (A	A)
2.				Total Number of	Dominant			
3			-	Species Across		(2 (E	B)
4				Percent of Domi	inant Specie	s		
Sapling/Shrub Stratum Total Cover:	%			That Are OBL, F	ACW, or FA	VC: 0	0.0 % (A	A/B)
1. Tamarix rammossissima (T. chinensis)	3	No	FAC	Prevalence Ind	ex workshe	et:		
2.				Total % Co	ver of:	Multip	oly by:	
3.				OBL species		x 1 =	0	
4.				FACW species		x 2 =	0	
5				FAC species	8	x 3 =	24	
Total Cover:	3 %			FACU species	25	x 4 =	100	
1.Bromus tectorum	30	Yes	UPL	UPL species	30	x 5 =	150	(D)
2.Heliotropium curassavicum	25	Yes	FACU	Column Totals:	63	(A)	274	(B)
3. Distichlis spicata		No	FAC	Prevalence	e Index = B	/A =	4.35	
4.			•	Hydrophytic Ve	egetation In	dicators:		
5.			•		Test is >50°			
6.					Index is ≤3.			
7					cal Adaptation Remarks or c			g
8.				Problemation	Hydrophytic	c Vegetation	¹ (Explain)	
Woody Vine Stratum	60 %							
1.				¹ Indicators of hy	dric soil and	d wetland h	ydrology m	ıust
2.				be present.				
Total Cover:	%			Hydrophytic				
% Bare Ground in Herb Stratum $40~%$ % Cover o	f Biotic C	rust	%	Vegetation Present?	Yes (No (•	
Remarks:				<u> </u>				

SOIL Sampling Point: 4f Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
 Redox Features

 %
 Color (moist)
 %
 Type¹
 Loc²
 Texture³
 Depth Color (moist) Remarks (inches)

	loam
——— —— —— —— —— —— —— —— —— ——	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ² Location: PL=Pore Lining,	RC=Root Channel, M=Matrix.
³ Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Lo	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils:
Histosol (A1) Sandy Redox (S5)	1 cm Muck (A9) (LRR C)
Histic Epipedon (A2) Stripped Matrix (S6)	2 cm Muck (A10) (LRR B)
Black Histic (A3) Loamy Mucky Mineral (F1)	Reduced Vertic (F18)
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Lawar (A5) (LRR C)	Red Parent Material (TF2)
Stratified Layers (A5) (LRR C) Depleted Matrix (F3) 1 cm Muck (A9) (LRR D) Redox Dark Surface (F6)	Other (Explain in Remarks)
Depleted Below Dark Surface (A11) Depleted Dark Surface (F7)	
Thick Dark Surface (A12) Redox Depressions (F8)	
Sandy Mucky Mineral (S1) Vernal Pools (F9)	⁴ Indicators of hydrophytic vegetation and
Sandy Gleyed Matrix (S4)	wetland hydrology must be present.
Restrictive Layer (if present):	
Type:	
Depth (inches):	Hydric Soil Present? Yes No No
Remarks:	
HADDOLOGA	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Drimon, Indicatora (any ana indicator is sufficient)	
Primary Indicators (any one indicator is sufficient)	Water Marks (B1) (Riverine)
Surface Water (A1) Salt Crust (B11)	Sediment Deposits (B2) (Riverine)
Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12)	Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine)
Surface Water (A1) Salt Crust (B11) High Water Table (A2) Saturation (A3) Aquatic Invertebrates (B13)	Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
Surface Water (A1) Salt Crust (B11) High Water Table (A2) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1)	Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Surface Water (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living R	Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Roots (C3) Thin Muck Surface (C7)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4)	Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Roots (C3) Thin Muck Surface (C7) Crayfish Burrows (C8)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed Soils	Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Roots (C3) Thin Muck Surface (C7) Crayfish Burrows (C8) s (C6) Saturation Visible on Aerial Imagery (C9)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed Soils Other (Explain in Remarks)	Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Roots (C3) Thin Muck Surface (C7) Crayfish Burrows (C8) S (C6) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3)
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