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Appendix C.7

Winter Golden Eagle Survey Report

**WINTER GOLDEN EAGLE SURVEY REPORT FOR THE PROPOSED
DESERT HARVEST SOLAR PROJECT LOCATED IN UNINCORPORATED
RIVERSIDE COUNTY, CALIFORNIA**

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1.0 INTRODUCTION

Bloom Biological, Incorporated (BBI) was retained by Aspen Environmental Group (Aspen) to conduct winter surveys for Golden Eagle (*Aquila chrysaetos*) for the proposed Desert Harvest Solar Project (project site) located in unincorporated Riverside County, California. The Golden Eagle is an uncommon permanent resident and migrant throughout most of California's foothills, mountains, sage-juniper flats and deserts (CDFG 2008), and is protected under the federal Bald and Golden Eagle Protection Act and by the California Department of Fish & Game as a Fully Protected Species. Golden Eagle status studies completed as recently as 1989 suggested a stable population for much of the western United States (Harlow and Bloom 1989); however, recent evidence suggests that eagle numbers in the western United States are now declining. As a result, the U.S. Fish and Wildlife Service (Service) is recommending focused surveys in nesting habitat within ten miles of proposed projects that might cause anthropogenic disturbances to eagles. Future recommendations regarding Golden Eagle wintering and migratory habitat use are being developed.

The winter survey described in this report will assist BBI and Aspen in further developing impact avoidance and management guidelines for this species in the project area. This report discusses BBI's survey methods, results and recommendations.

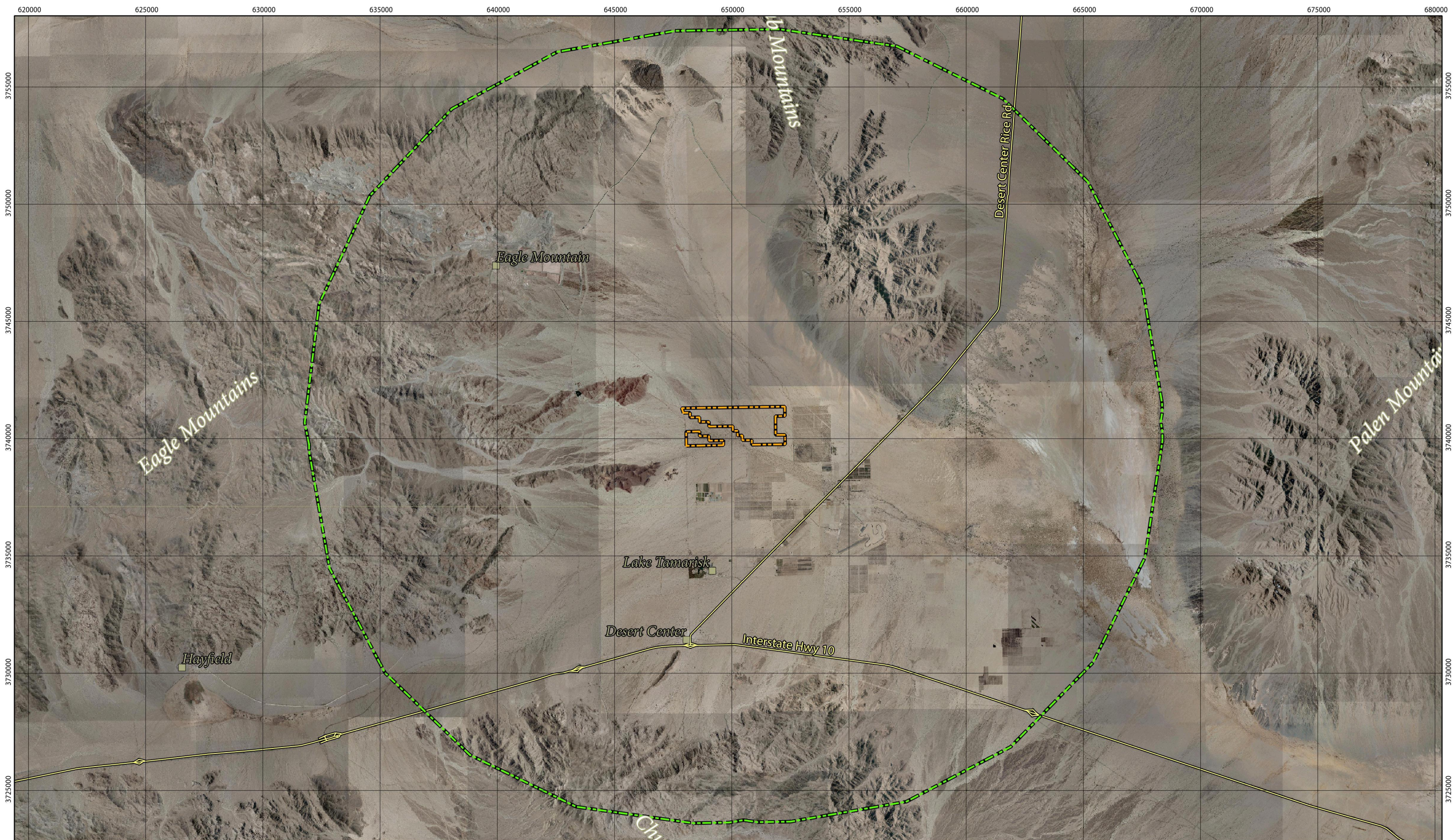
2.0 STUDY AREA DESCRIPTION

The project site is comprised of approximately 1,205 acres (488 hectares) of open desert in east-central Riverside County, California (see Figure 1). The site is located on all or portions of Public Land Survey Sections 26 and 27 of Township 4 South, Range 15 East of the US Geological Survey's (USGS) 7.5-minute *Victory Pass* quadrangle and Section 25 of Township 4 South, Range 15 East of the *East of Victory Pass* quadrangle. Terrain on the site is flat, with elevations ranging from 584 to 675 feet (178 to 206 meters) above mean sea level (amsl), with a mean elevation of 623 feet (190 meters) amsl.¹ The project site is accessed via County Route R2, which heads north from Desert Center – Rice Road just north of Interstate 10.

The study area for this survey includes the project site and all lands within a ten mile radius of the project site (Exhibits 1 and 2). For the purpose of this document, this region will be referred to as the "study area". The study area is comprised of approximately 247,160 acres (100,022 hectares) located on all or portions of the USGS 7.5-minute *Placer Canyon*, *Pinto Wells*, *Coxcomb Mountains*, *West of Palen Pass*, *Buzzard Spring*, *Victory Pass*, *East of Victory Pass*, *Palen Lake*, *Hayfield Spring*, *Desert Center*, *Corn Spring* and *Sidewinder Well* quadrangles. Terrain in the study area varies from flat to mountainous with elevations ranging from 423 to 3,983 feet (129 to 1,214 meters) amsl, with a mean elevation of 1,204 feet (367 meters) amsl¹. Significant Holland (1986) land cover types in the study area are Agriculture, Alkali Playa, Blackbush Scrub, Desert Dry Wash Woodland, Mojave Creosote Bush Scrub, Mojave Mixed Woody Scrub, Mojavean Pinyon and Juniper Woodlands, Sonoran Creosote Bush Scrub and Sonoran Desert Mixed Scrub² (Exhibit 3). Potential locations for Golden Eagle nesting in the study area include the Eagle Mountains to the west, Coxcomb Mountains to the north, Palen Mountains to the east, and Chuckwalla Mountains to the south. Golden Eagles are also known to build nests on electrical towers, the majority of which run east-west in the southern end of the study area.

¹ Elevation values derived from GRASS GIS version 6.4 using module *r.univar* on a US Geological Survey 1/3-minute digital elevation model.

² Land cover types and extents based on GAP Analysis Project data and determined via a PostGIS/PostgreSQL spatial query.



Project Site Boundary
Ten Mile Golden Eagle Survey Buffer

0 1 2 3 mi
1:150000

UTM NAD 83 Zone 11 Coordinates
Author: Marcus C. England
Map Date: 21 March 2012
Aerial Photography: US Department of Agriculture

Exhibit 1: Study Area
Desert Harvest | Riverside County, California

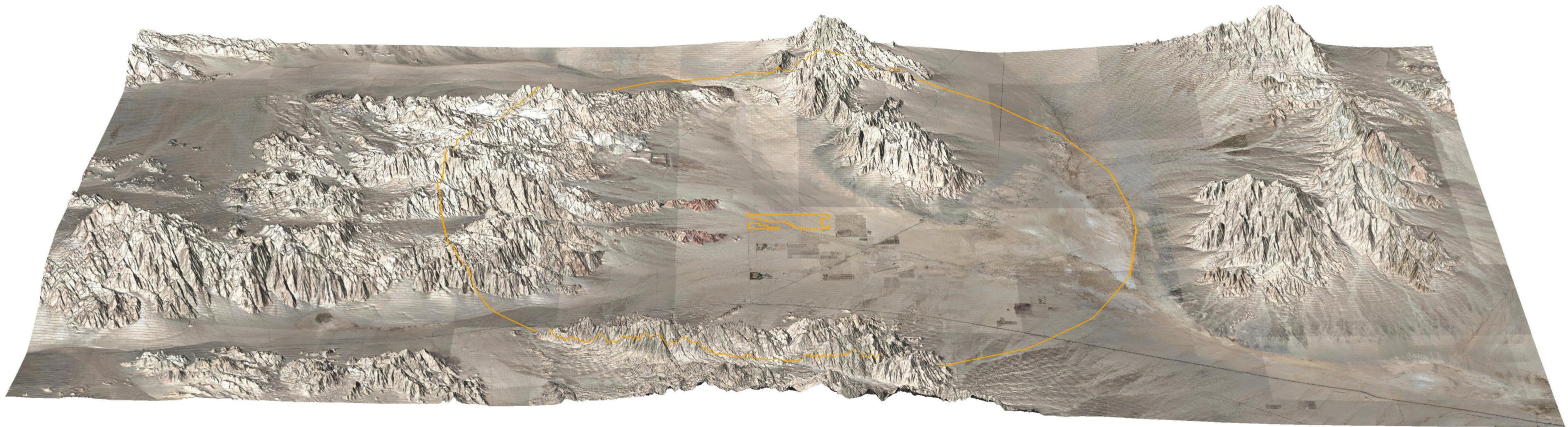
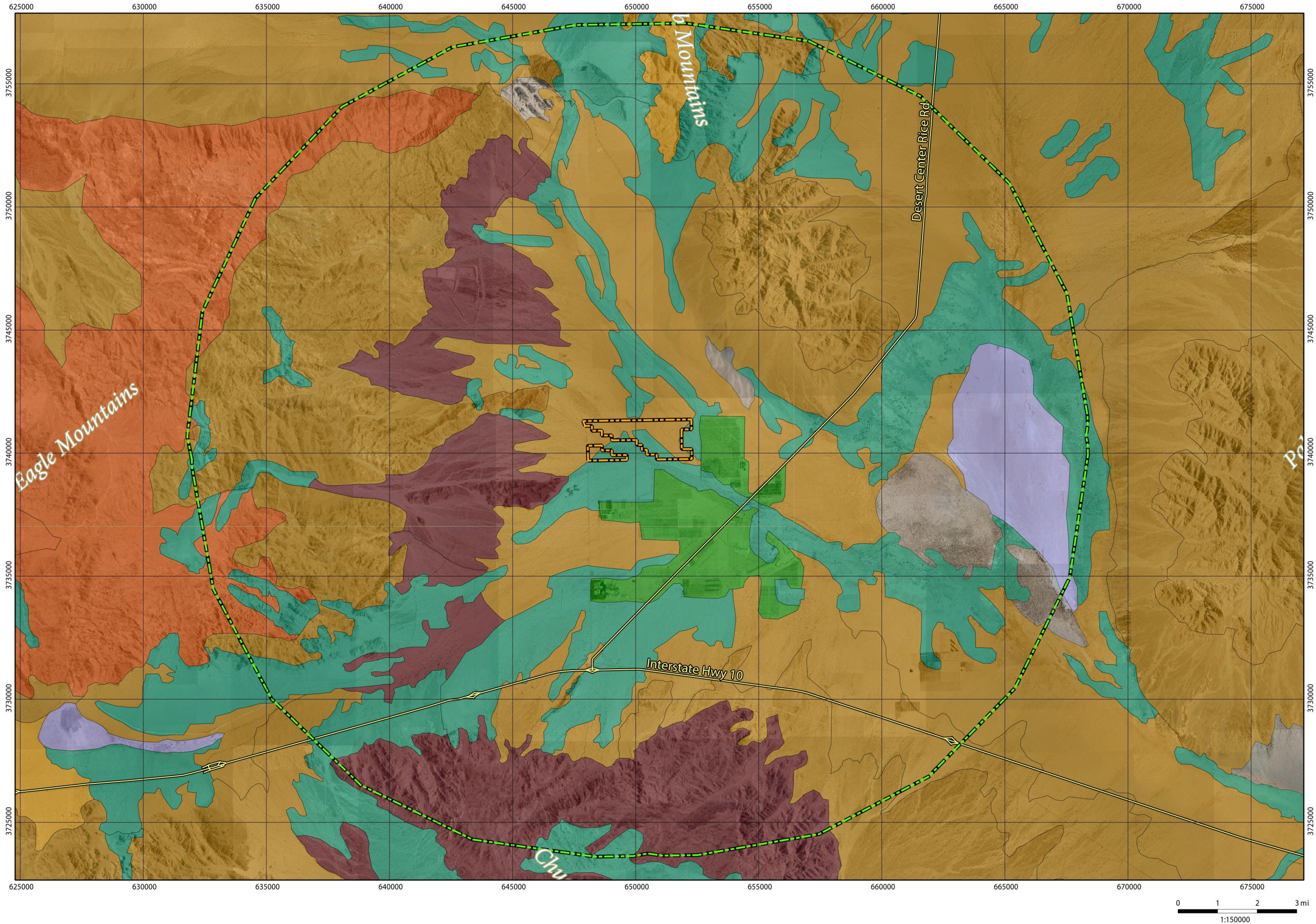


Exhibit 2: Terrain Features
Desert Harvest | Riverside County, California



- Project Site Boundary**
- Project Site Boundary
- Ten Mile Golden Eagle Survey Buffer**
- Ten Mile Golden Eagle Survey Buffer
- GAP Project Vegetation**
- Agriculture
 - Alkali Playa
 - Blackbush Scrub
 - Desert Dry Wash Woodland
 - Mojave Creosote Bush Scrub
 - Mojave Mixed Woody Scrub
 - Mojavean Pinyon and Juniper Woodlands
 - Sonoran Creosote Bush Scrub
 - Sonoran Desert Mixed Scrub

Vegetation Data Source: Davis, F. W., D. M. Stoms, A. D. Hollander, K. A. Thomas, P. A. Stine, D. Odion, M. I. Borchert, J. H. Thorne, M. V. Gray, R. E. Walker, K. Warner, and J. Graae. 1998. *The California Gap Analysis Project--Final Report*. University of California, Santa Barbara, CA.

0 1 2 3 mi
1:150000

UTM NAD 83 Zone 11 Coordinates
Author: Marcus C. England
Map Date: 21 March 2012
Aerial Photography: US Department of Agriculture

Exhibit 3: GAP Vegetation Communities
Desert Harvest | Riverside County, California

Figure 1. Project Site Location



3.0 METHODS

BBI biologists conducted eight surveys from December 22, 2011 to February 7, 2012. The primary objective of the surveys was to document the locations, if any, of Golden Eagles and Golden Eagle nests observed in the study area. The secondary objective was to document the location of other raptor and corvid nests. BBI biologists documented all other biological resources of potential permitting significance. Surveys were generally completed from sunrise to mid-afternoon or near sunset. Weather conditions varied throughout but were generally seasonable with no rain or other significant weather events that could adversely affect observations. Much of the study area was covered via vehicle on both improved and unimproved roads. Foot travel was necessary for close inspection of nests and viewing of terrain when a vehicle approach did not allow an appropriate vantage point. All findings of biological significance (e.g., nests, sensitive species) were documented with a GPS waypoint and photograph where feasible.

Table 1. Field Survey Dates, Times and Weather Conditions

Date	Time	Weather	Biologists
12/22/11	0830-1610h	Start: 48° F, 0% cloud cover, Strong Wind out of the N End: 50° F, 0% cloud cover, Strong Wind out of the N No rain; No fog; No snow	Peter H. Bloom Marcus C. England
12/28/11	0700-1630h	Start: 55° F, 1-25% cloud cover, Calm out of the W End: 66° F, 1-25% cloud cover, Light Wind out of the W No rain; No fog; No snow	Peter H. Bloom Ryan Thomas
01/06/12	0715-1545h	Start: 46° F, 1-25% cloud cover, Calm out of the N End: 72° F, 0% cloud cover, Calm out of the N No rain; No fog; No snow	Peter H. Bloom Karly Moore
01/10/12	0715-1615h	Start: 37° F, 1-25% cloud cover, Breeze out of the SE End: 65° F, 26-50% cloud cover, Breeze out of the NE No rain; No fog; No snow	Peter H. Bloom Karly Moore
01/20/12	0730-1615h	Start: 49.9° F, 76-99% cloud cover, Breeze out of the NE End: 70° F, 26-50% cloud cover, Breeze out of the E No rain; No fog; No snow	Lee Aulman Karly Moore
01/27/12	0745-1615h	Start: 64.9° F, 76-99% cloud cover, Strong Wind out of the NW End: 70° F, 76-99% cloud cover, Strong Wind out of	Lee Aulman Karly Moore

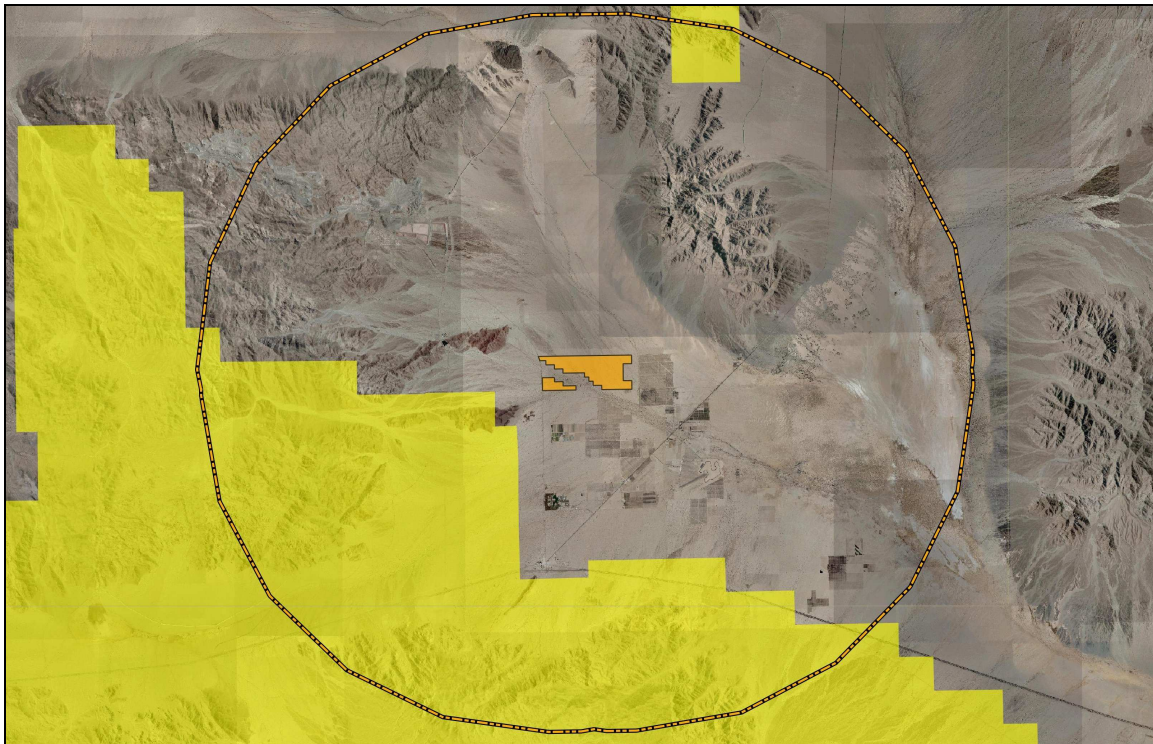
Date	Time	Weather	Biologists
02/01/12	0715-1615h	the NE No rain; No fog; No snow Start: 53° F, 26-50% cloud cover, Breeze out of the W End: 69° F, 0% cloud cover, Light Wind out of the SW	Peter H. Bloom Karly Moore
02/07/12	0730-1530h	No rain; No fog; No snow Start: 54° F, 100% cloud cover, Breeze out of the E End: 67° F, 100% cloud cover, Breeze out of the W No rain; No fog; No snow	Peter H. Bloom Karly Moore

4.0 RESULTS

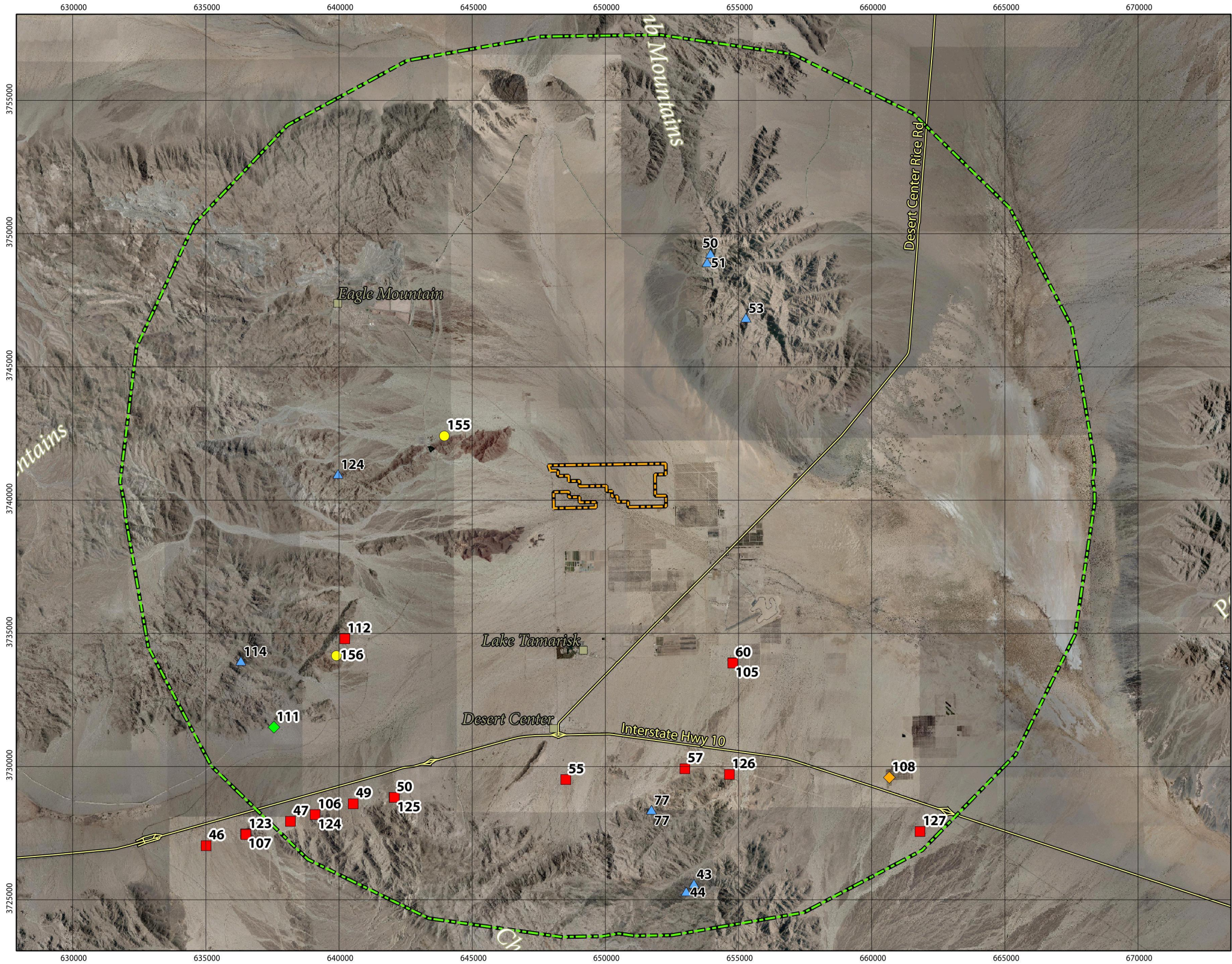
4.1 General Biological Conditions

A total of 41 bird, six mammal and two reptile species were observed during BBI's surveys. A comprehensive list of these species is provided in the Faunal Compendium which is attached as Appendix A. Other than Golden Eagle, the most significant resource observation during BBI's surveys was that of a shell fragment of a juvenile or immature Desert Tortoise (*Gopherus agassizii*) near the southwest edge of the study area on January 20, 2012 (point 111, Exhibit 4). The Desert Tortoise is listed as Threatened with Critical Habitat designated under the Federal Endangered Species Act. The project site is located approximately 1.25 miles northeast of the limits of the Chuckwalla Unit of Desert Tortoise Critical Habitat (Service 1994, Figure 2).

Figure 2. Desert Tortoise Critical Habitat Relative to the Project Site and Study area.



Probable migratory corridors, at least for Turkey Vultures (*Cathartes aura*), were detected in the west end of the study area (points 155 and 156, Exhibit 4) by BBI on February 1, 2012. In BBI's project database, biologist Karly Moore noted:



Sensitive Birds

#	Date	Common Name	Scientific Name
108	2012-01-10	Golden Eagle	Aquila chrysaetos

Sensitive Reptiles

#	Date	Common Name	Scientific Name
111	2012-01-20	Desert Tortoise	Gopherus agassizii

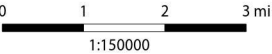
Other

#	Date	Title
155	2012-02-01	Migrating corridor

Nests

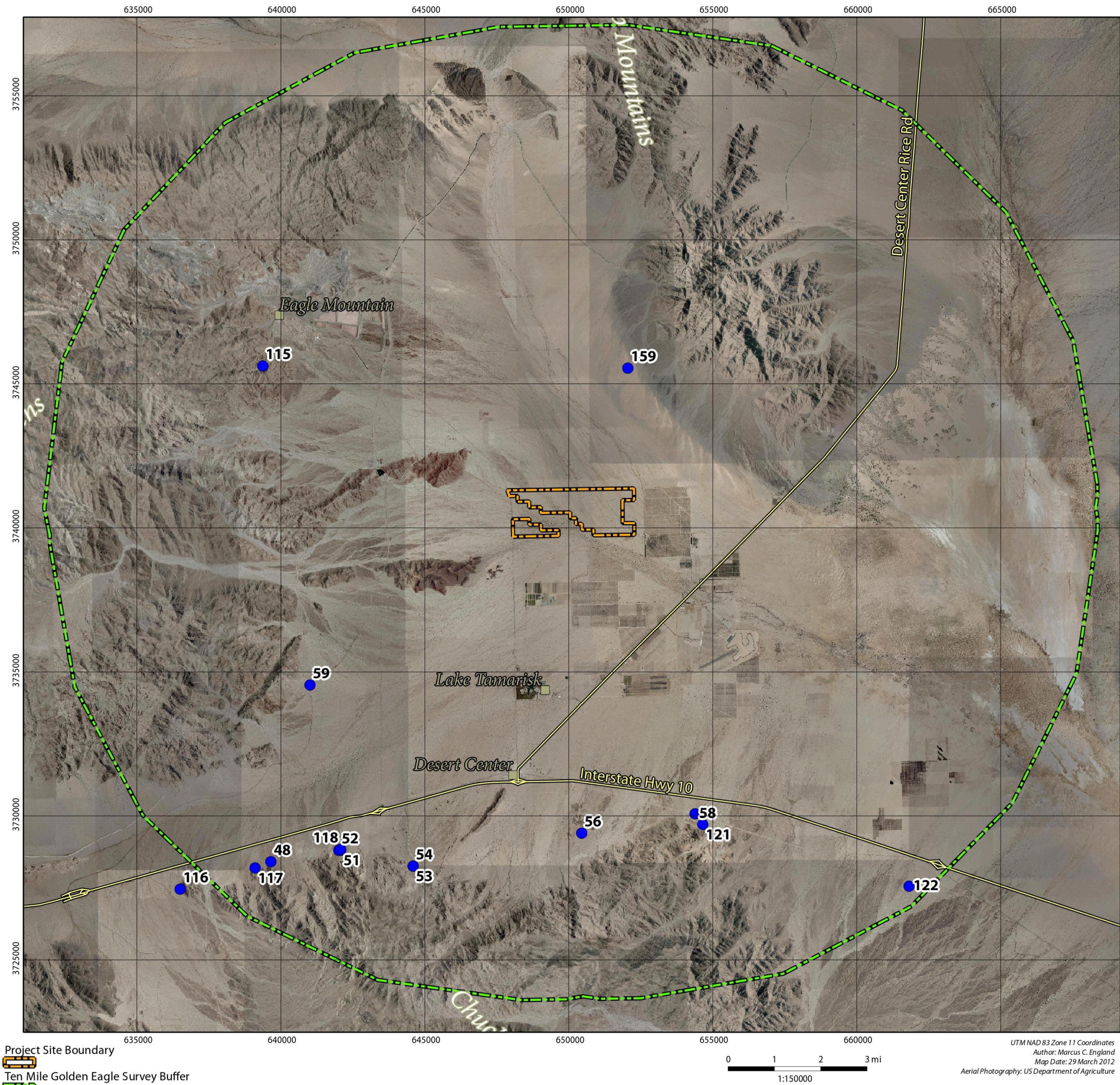
#	Date	Common Name	Scientific Name	Substrate	Height
46	2011-12-22	Red-tailed Hawk	Buteo jamaicensis	Utility Pole	150
47	2011-12-22	Common Raven	Corvus corax	Utility Pole	150
49	2011-12-22	Common Raven	Corvus corax	Utility Pole	150
50	2011-12-22	Golden Eagle	Aquila chrysaetos	Utility Pole	150
105	2012-01-10	Red-tailed Hawk	Buteo jamaicensis	Utility Pole	30
106	2012-01-10	Golden Eagle	Aquila chrysaetos	Utility Pole	60
107	2012-01-10	Golden Eagle	Aquila chrysaetos	Utility Pole	60
112	2012-01-20	Golden Eagle	Aquila chrysaetos	Other	10 feet
123	2012-01-27	Golden Eagle	Aquila chrysaetos	Utility Pole	90 ft
55	2011-12-22	Common Raven	Corvus corax	Utility Pole	150
57	2011-12-22	Common Raven	Corvus corax	Utility Pole	150
60	2011-12-22	Red-tailed Hawk	Buteo jamaicensis	Utility Pole	100
124	2012-01-27	Golden Eagle	Aquila chrysaetos	Utility Pole	90 ft
125	2012-01-27	Golden Eagle	Aquila chrysaetos	Utility Pole	90 ft
126	2012-01-27	Golden Eagle	Aquila chrysaetos	Utility Pole	90 ft
127	2012-01-27	Golden Eagle	Aquila chrysaetos	Utility Pole	90 ft

- Project Site Boundary
- Ten Mile Golden Eagle Survey Buffer
- Nests
- Sensitive Birds
- Sensitive Reptiles
- Other
- BLM-Provided Golden Eagle Nest Locations
- Golden Eagle Nest Locations



UTM NAD 83 Zone 11 Coordinates
Author: Marcus C. England
Map Date: 29 March 2012
Aerial Photography: US Department of Agriculture

Exhibit 4: Biological Resource Observations
Desert Harvest | Riverside County, California



Project Site Boundary
Ten Mile Golden Eagle Survey Buffer

Exhibit 5: Photograph Locations

Desert Harvest | Riverside County, California



Waypoint: 159
UTM Easting: 652049
UTM Northing: 3745555
Biologist: Karly Moore
Direction: NW
Description: Photo across the sand dune, north of highway 10, east of current solar farm being constructed.



Waypoint: 118
UTM Easting:
UTM Northing:
Biologist: Karly Moore
Direction: N
Description: Golden eagle nest in a tower on the south side of Highway 10. Two unknown large birds of prey seen in the area.



Waypoint: 115
UTM Easting: 639364
UTM Northing: 3745631
Biologist: Karly Moore
Direction: NW
Description: Old, inactive probable Common Raven nest, stained with wood rat urine.



Waypoint: 48
UTM Easting: 639649
UTM Northing: 3728412
Biologist: Marcus C. England
Direction: W
Description: View of power line right of way.



Waypoint: 52
UTM Easting: 642005
UTM Northing: 3728813
Biologist: Marcus C. England
Direction: S
Description: Cliffs that could potentially provide nest locations for Golden Eagle.

Note: Additional photographs available upon request.

Over the course of the day groups of turkey vultures were seen migrating WNW over Eagle Mountain. The first group of 80 turkey vultures were seen thermaling low below the ridgetop along the slope over by the aqueduct substation (643952, 3742418). This was the area the vultures were seen crossing a few weeks prior. Later in the day 136 turkey vultures were seen passing a little more to the west (639895, 3734170) traveling low and even into the draw/canyon by the old inactive golden eagle nest in the boulder.

One California Species of Special Concern, a Long-eared Owl (*Asio otus*) was flushed from a wash on the south side of the study area on January 10, 2012.

A variety of large bird nests were also documented. These will be described in the following section.

4.2 Golden Eagles & Other Raptors

Golden Eagles are present in the area, but it is uncertain whether they are currently regularly using the proposed project's study area. On January 10, 2012, one adult Golden Eagle was observed soaring near the southeastern edge of the study area just north of Interstate 10 (point 108, Exhibit 4). The eagle was thermaling with approximately 80 Common Ravens (*Corvus corax*) and three Turkey Vultures. No other Golden Eagles were detected during BBI's surveys.

Eight Golden Eagle nests or probable Golden Eagle nests were detected by BBI during the surveys. All were located on utility poles. None of the nests appeared to be recently active. All of the nest locations identified by BBI are shown on Exhibit 4 and in Table 2 below. Eight additional Golden Eagle nest locations from 2010 were provided by the Bureau of Land Management. At least one of these nests was active in 2010. The nests are shown on Exhibit 4 and in Table 3 below.

Uncommon raptor species detected during the surveys include Prairie Falcon (*Falco mexicanus*) with three observed on January 20, 2012 and two observed on February 7, 2012, and the aforementioned Long-eared Owl observed on January 10, 2012. Common raptor species detected during BBI's surveys were Sharp-shinned Hawk (*Accipiter striatus*), Cooper's Hawk (*Accipiter cooperii*), Red-tailed Hawk (*Buteo jamaicensis*), and American Kestrel (*Falco sparverius*). Red-tailed Hawk was the only raptor species, other than Golden Eagle, for which nest locations were detected during BBI surveys. Nests were observed at points 46, 60, and 105 (Exhibit 4 and Table 2).

Table 2. Nest Locations & Descriptions

The following table shows all large bird nests detected during BBI's surveys. These nests are also depicted with their coordinates on Exhibit 4.

#	Date	Common Name	Scientific Name	Substrate	Height	Notes
46	2011-12-22	Red-tailed Hawk	<i>Buteo jamaicensis</i>	Utility Pole	150	South cross arm of tower.
47	2011-12-22	Common Raven	<i>Corvus corax</i>	Utility Pole	150	North arm of tower. Possible Red-tailed Hawk nest.
49	2011-12-22	Common Raven	<i>Corvus corax</i>	Utility Pole	150	North cross arm. Possibly Red-tailed Hawk.
50	2011-12-22	Golden Eagle	<i>Aquila chrysaetos</i>	Utility Pole	150	South of arm of utility tower.
55	2011-12-22	Common Raven	<i>Corvus corax</i>	Utility Pole	150	South cross arm. Could be Red-tailed Hawk or Golden Eagle.
57	2011-12-22	Common Raven	<i>Corvus corax</i>	Utility Pole	150	North arm. Possible Red-tailed Hawk nest.
60	2011-12-22	Red-tailed Hawk	<i>Buteo jamaicensis</i>	Utility Pole	100	None
105	2012-01-10	Red-tailed Hawk	<i>Buteo jamaicensis</i>	Utility Pole	30	Found 6 January 2012, female

#	Date	Common Name	Scientific Name	Substrate	Height	Notes
106	2012-01-10	Golden Eagle	<i>Aquila chrysaetos</i>	Utility Pole	60	was nest building. inactive, south side of Hwy 10, near hillside
107	2012-01-10	Golden Eagle	<i>Aquila chrysaetos</i>	Utility Pole	60	inactive, near hillside, south side of Hwy 10.
112	2012-01-20	Common Raven	<i>Corvus corax</i>	Other	10	Inactive, old nest, sticks stained with wood rat urine. Nest waypoint is a projected waypoint.
123	2012-01-27	Golden Eagle	<i>Aquila chrysaetos</i>	Utility Pole	90	Golden eagle nest, south side of highway 10, west end of driving route (closest to red canyon rd).
124	2012-01-27	Golden Eagle	<i>Aquila chrysaetos</i>	Utility Pole	90	Golden eagle nest in a tower, south side of highway 10.
125	2012-01-27	Golden Eagle	<i>Aquila chrysaetos</i>	Utility Pole	90	Golden eagle nest in tower, on south side of highway 10. Two large unidentified birds of prey were seen nearby.
126	2012-01-27	Golden Eagle	<i>Aquila chrysaetos</i>	Utility Pole	90	Golden eagle nest on south side of highway 10. There are DPV2 signs indicating ESA (possibly the nest). Location is roughly 2.5 miles southwest of the golden eagle seen several weeks prior.
127	2012-01-27	Golden Eagle	<i>Aquila chrysaetos</i>	Utility Pole	90	Golden eagle nest on a tower on the south side of Highway 10, furthest to the east documented. This nest is 1.5 miles southeast of where the golden eagle was documented several weeks prior.

Table 3. BLM-Provided Golden Eagle Nest Locations

The following table shows Golden Eagle nest locations within the study area provided by the Bureau of Land Management. These nests are also depicted on Exhibit 4.

Waypoint	Active	Elevation	Notes	Easting	Northing	Year
43	N	2358 ft	very old and deteriorated	—	—	2010
44	N	2374 ft		—	—	2010
77	*	1730 ft	*Possibly active	—	—	2010
114	N	3816 ft		—	—	2010
124	*	2878 ft	*Possibly active, possibly new material	—	—	2010
50	Y	2709 ft		—	—	2010
51	N	2175 ft		—	—	2010
53	N	2346 ft		—	—	2010

5.0 CONCLUSIONS & DISCUSSION

While there is currently an effort to build a larger “sustainable” energy infrastructure in the United States and abroad with expected fewer overall environmental effects than the existing hydrocarbon-based infrastructure, conservation biologists are still in the process of establishing what effects alternative

energy plants might have on the environment at the local level. It is well-established that Golden Eagles and other raptors are vulnerable to mortality through collision with wind turbines (Orloff and Flannery 1992, PBRG 1997, Madders and Walker 2002). For solar facilities, potential effects on wildlife are in the early stages of investigation, but it is expected that raptors and other species could suffer adverse effects due to reduced foraging habitat, and potentially, a reduction in the prey base also caused by habitat loss for prey species. Specifically, BBI has identified the following potential adverse effects on Golden Eagles attributed to solar projects:

- **Direct Mortality** - Long-term surveys of Golden Eagle populations have shown declines in nesting populations throughout the western United States (Kochert and Steenhof 2002). Franson et al. (1995) found that humans cause >70% of recorded deaths, with the leading causes being accidental trauma (collisions with vehicles, power lines, or other structures, 27%), electrocution (25%), gunshot (15%), and poisoning (6%). Lead poisoning in California has also been identified as an important mortality factor with > 30% of a population having elevated levels (Bloom et al. 1989, Pattee et al. 1990).

Electrocution is a particular risk potentially posed by infrastructure associated with many solar projects. Golden Eagles are vulnerable to electrocution when landing on power poles, with the risk increasing when inclement weather hampers flight or when wet feathers increase conductivity (Avian Power Line Interaction Committee 1996). Harness and Wilson (2001) reported that ≥272 Golden Eagle electrocution deaths occurred in western North America from 1986 to 1996. Poles with cross arms diagonal or parallel to prevailing winds are most lethal (Benson 1981, Harness and Wilson 2001).

For this proposed project, the specifics of the proposed electrical infrastructure are unknown to BBI at this time. BBI recommends that electrocution risk be minimized through the use of bird-safe pole designs.

- **Nest Failures** - Golden Eagles may desert nests in early incubation if disturbed by humans (Thelander 1974), and potential desertion may not be noticed early through behavioral cues as Golden Eagles are not aggressive toward humans in the nest vicinity and will simply leave and not return to the area for hours (Camenzind 1969), if ever. While data collected in this survey suggest that the proposed project is unlikely to cause such an effect directly, project implementation could contribute to cumulative or growth-inducing impacts, ultimately causing additional anthropogenic disturbance in the area over time.
- **Indirect Mortality** – Management of healthy eagle populations requires maintaining prey habitat in foraging areas (Kochert et al. 2002), as the availability of food and nesting sites is the primary factor determining nesting density of Golden Eagles (Hunt et al. 1995), and reproductive rates of Golden Eagles often fluctuate with prey densities (Smith and Murphy 1979, Tjernberg 1983, Bates and Moretti 1994, Steenhof et al. 1997, McIntyre and Adams 1999). In southwestern Idaho, Marzluff et al. (1997) have found that behavior and demography of Golden Eagles are closely associated with the abundance of Black-tailed Jackrabbits (*Lepus californicus*), which are themselves dependent on stands of sagebrush/rabbitbrush interspersed with grassland (Knick and Dyer 1997). Bloom and Hawks (1982), working in the Great Basin Desert of northeast California and northwest Nevada, found that 91% of the biomass and 85% of the frequency of prey found in nests were attributed to lagomorphs. Patch sizes of this habitat were found to be an essential feature of Golden Eagle home ranges (Marzluff et al. 1997).

In the study area for this proposed project, BBI biologists stated that there was “a notable absence of prey items on the site”. Indeed, Black-tailed Jackrabbits were only observed in small numbers during the surveys, with one on January 6, two on January 10, one on January 20 and

three on February 1, 2012. While Golden Eagles are capable of killing large prey such as cranes, wild ungulates, and domestic livestock, smaller game such as rabbits, hares, ground squirrels, and prairie dogs are most important (Bloom and Hawks 1982, Olendorff 1976). As jackrabbit population levels are cyclical, it is unclear if the relatively low number of jackrabbits detected during the surveys were an indication of poor habitat quality or reflect numbers indicative of the low end of population fluctuation.

Golden Eagles typically reach sexual maturity, form territories and begin nesting at four years of age. Pairs generally stay within the limits of their territory, which can measure 20–30 square kilometers, and within that territory can have as many as 14 nests (Bloom pers. obs.) which a pair maintains and repairs as part of its courtship ritual. Over the course of a decade several of these nests will be used and will produce young, others may only be maintained with the periodic addition of fresh sticks. Most alternate nests are important in the successful reproduction of a pair of eagles. Pairs commonly refrain from laying eggs in some years, particularly when prey is scarce.

Given the presence of Golden Eagles and at least eight confirmed or probable Golden Eagle nests in the study area, but the lack of any indication of recent nest activity, it is the opinion of BBI that although Golden Eagles are present in the study area, they may not have recently nested within it because of low prey levels. BBI recommends that winter and springs surveys for Golden Eagle be conducted yearly until project construction is completed.

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APPENDIX A. FAUNAL COMPENDIUM

Birds

Anseriformes - Screamers, Swans, Geese, and Ducks | Anatidae - Ducks, Geese, and Swans
Canada Goose *Branta canadensis*

Galliformes - Gallinaceous Birds | Odontophoridae - New World Quail
Mountain Quail *Oreortyx pictus*
Gambel's Quail *Callipepla gambelii*

Pelecaniformes - Pelicans, Herons, Ibises, and Allies | Ardeidae - Herons, Bitterns, and Allies
Great Egret *Ardea alba*

Accipitriformes - Hawks, Kites, Eagles, and Allies | Cathartidae - New World Vultures
Turkey Vulture *Cathartes aura*

Accipitriformes - Hawks, Kites, Eagles, and Allies | Accipitridae - Hawks, Kites, Eagles, and Allies
Sharp-shinned Hawk *Accipiter striatus*
Cooper's Hawk *Accipiter cooperii*
Red-tailed Hawk *Buteo jamaicensis*
Golden Eagle *Aquila chrysaetos*

Falconiformes - Caracaras and Falcons | Falconidae - Caracaras and Falcons
American Kestrel *Falco sparverius*
Prairie Falcon *Falco mexicanus*

Gruiformes - Rails, Cranes, and Allies | Rallidae - Rails, Gallinules, and Coots
American Coot *Fulica americana*

Columbiformes - Pigeons, and Doves | Columbidae - Pigeons and Doves
Eurasian Collared-Dove *Streptopelia decaocto*
Mourning Dove *Zenaida macroura*

Cuculiformes - Cuckoos and Allies | Cuculidae - Cuckoos, Roadrunners, and Anis
Greater Roadrunner *Geococcyx californianus*

Strigiformes - Owls | Strigidae - Typical Owls
Long-eared Owl *Asio otus*

Apodiformes - Swifts, and Hummingbirds | Apodidae - Swifts
White-throated Swift *Aeronautes saxatalis*

Piciformes - Puffbirds, Jacamars, Toucans, Woodpeckers, and Allies | Picidae - Woodpeckers and Allies
Ladder-backed Woodpecker *Picoides scalaris*

Passeriformes - Passerine Birds | Tyrannidae - Tyrant Flycatchers
Black Phoebe *Sayornis nigricans*
Say's Phoebe *Sayornis saya*

Passeriformes - Passerine Birds | Laniidae - Shrikes
Loggerhead Shrike *Lanius ludovicianus*

Passeriformes - Passerine Birds | Corvidae - Crows and Jays
Common Raven *Corvus corax*

Passeriformes - Passerine Birds | Alaudidae - Larks
Horned Lark *Eremophila alpestris*

Passeriformes - Passerine Birds | Remizidae - Penduline Tits and Verdins
Verdin *Auriparus flaviceps*

Passeriformes - Passerine Birds | Troglodytidae - Wrens
Cactus Wren *Campylorhynchus brunneicapillus*
Rock Wren *Salpinctes obsoletus*

Passeriformes - Passerine Birds | Polioptilidae - Gnatcatchers and Gnatwrens
Blue-gray Gnatcatcher *Polioptila caerulea*
Black-tailed Gnatcatcher *Polioptila melanura*

Passeriformes - Passerine Birds | Turdidae - Thrushes
Western Bluebird *Sialia mexicana*
Mountain Bluebird *Sialia currucoides*

Passeriformes - Passerine Birds | Mimidae - Mockingbirds and Thrashers
Sage Thrasher *Oreoscoptes montanus*
California Thrasher *Toxostoma redivivum*

Passeriformes - Passerine Birds | Sturnidae - Starlings
European Starling *Sturnus vulgaris*

Passeriformes - Passerine Birds | Ptilogonatidae - Silky-flycatchers
Phainopepla *Phainopepla nitens*

Passeriformes - Passerine Birds | Parulidae - Wood-Warblers
Yellow-rumped Warbler *Setophaga coronata*

Passeriformes - Passerine Birds | Emberizidae – Emberizids
Black-throated Sparrow *Amphispiza bilineata*
White-crowned Sparrow *Zonotrichia leucophrys*

Passeriformes - Passerine Birds | Fringillidae - Fringilline and Cardueline Finches and Allies
House Finch *Carpodacus mexicanus*
Lesser Goldfinch *Spinus psaltria*

Passeriformes - Passerine Birds | Passeridae - Old World Sparrows
House Sparrow *Passer domesticus*

Mammals

Lagomorpha | Leporidae
Black-tailed Jackrabbit *Lepus californicus*

Rodentia | Sciuridae
White-tailed Antelope Squirrel *Ammospermophilus leucurus*

Rodentia | Heteromyidae

Desert Kangaroo Rat *Dipodomys deserti*

Merriam's Kangaroo Rat *Dipodomys merriami*

Artiodactyla | Cervidae

Mule Deer *Odocoileus hemionus*

Reptiles

Testudines | Testudinidae

Desert Tortoise *Gopherus agassizii*

Squamata | Phrynosomatidae

Side-blotched Lizard *Uta stansburiana*