

Appendix L
Eagle Survey



July 7, 2010

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Subject: Results of Eagle Surveys by Helicopter for the Chevron Energy Solutions Solar Project Site Located in a Community of Lucerne Valley, San Bernardino County, California.

Dear Mr. Ambatipudi

Chambers Group, Inc. (Chambers Group) is pleased to submit this memo report to Chevron Energy Solutions for biological services for an approximately 516-acre parcel located in the Community of Lucerne Valley, San Bernardino County, California. This memo report summarizes the formal Eagle Survey conducted on June 7 and 9, 2010.

PROJECT DESCRIPTION AND SITE LOCATION

The Chevron Solar Project site, comprising approximately 516 acres, is located just south of CA-247 off the I-15 Freeway at Bear Valley Road, approximately 8 miles east of the junction of Barstow Road and Old Woman Springs Road, east of the City of Lucerne Valley in San Bernardino County, California. The site is located south of Foothill Road and is bordered by Donaldson Road on the west and a drainage that runs approximately 1,300 feet east of Santa Fe Fire Road on the east. The site is within the U.S. Geological Survey (USGS) Cougar Buttes, California 7.5-minute topographic quadrangle in Sections 19, 20, 29, and 30 of Township 4 North, Range 2 East and in Section 24 of Township 4 North, Range 1 East (Attachment). The elevation range at the site is between approximately 3,000 and 3,120 feet above mean sea level. Vegetation communities identified onsite include creosote-bush and white-bursage series vegetation.

METHODS

Prior to the field survey, Chambers Group biologists reviewed historic USFWS, BLM, and CNDDDB data regarding existing occurrences and previously occupied golden and bald eagle nest sites within the Lucerne Valley area. Golden Eagles (*Aquila chrysaetos canadensis*) are protected by the Migratory Bird Treaty Act, and the Bald and Golden Eagle Protection Act (Eagle Act). Chambers Group conducted surveys in accordance with the *Interim Golden Eagle Monitoring and Protocols, and Other Recommendations*, USFWS, February 2010. This document was designed to help in determining and

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evaluating potential Golden Eagle use of habitat including nest sites, roosts, and territories, and foraging locations.

To appropriately cover the 10-mile survey area around the project site for eagles, Chambers Group conducted the surveys via helicopter to survey appropriate habitat from the air. Surveys focused on habitat such as cliff faces and tower lines that could potentially host golden eagle nests, or large trees near riparian areas that could potentially support bald eagles. To appropriately cover the entire survey area, the crew flew to each outcrop of rock in the desert areas (upper two-thirds of the survey area). Each outcrop of rock was surveyed by flying directly adjacent to the rock at several different elevations for 100 percent visual coverage. The crew also flew along the two transmission lines: Single Steel Tower Transmission Line which is located near the upper third of the project survey area in a northeast to southwest direction, and the Steel Tower Transmission Line along the northwestern boundary. For the southern areas along the San Bernardino Mountain Ranges and the National Forest Areas, the crew flew transects along the mountains and flew within each canyon at different elevations for 100 percent coverage. The crew began in the southeast corner and flew transects along each canyon as they worked to the southwest. This was repeated from the southwest as they worked east on the second survey day. Over the more relatively flat areas near the Baldwin Lake and Big Bear Lake areas, the crew flew in quarter mile transects over the tall trees that could potentially support bald eagle nest sites. Photographs and GPS coordinates of nest site locations were recorded for eagles, raptor including red-tailed hawk and prairie falcon, and raven species.

RESULTS

Pete Bloom, a raptor specialist in California, led the helicopter survey effort on June 7 and June 9, 2010. Mr. Bloom was assisted by Chambers Group biologists Paul Morrissey and Kris Alberts during the survey effort to carefully document the flight and record GPS coordinates and other mapping components during the survey effort. Surveys were conducted on June 7, 2010 from 1000 hours to 1856 hours. Temperatures ranged from 62 degrees to 98 degrees Fahrenheit due to the elevation differences which ranged from approximately 2,840 feet near the dry Lucerne Lake area to 8,235 feet above mean sea level near Gold Mountain in the Big Bear Lake area. The upper two thirds and the southeastern area of the survey area were covered on June 7 under good visibility and low winds. A R44 helicopter was used for this first effort. The second survey was conducted on June 9, 2010 from 0830 hours to 1430 hours. Temperatures ranged from 51 degrees to 87 degrees Fahrenheit with good visibility and low winds. The crew covered the lower third of the survey area and revisited areas that were difficult to fly into on June 7 due to factors affecting flight including elevated winds late in the day, heat, elevation, and safety concerns. A MD500 helicopter was used for the June 9 survey effort which is a smaller helicopter allowed for more maneuvering in tight and steep locations such as the canyons found in the southern areas.

Fourteen golden eagle nest locations were identified during the June 7 and June 9 survey efforts. Of the fourteen nest sites, eleven inactive and three active golden eagle nests were identified. Thirty-five raven nests, one inactive red-tailed hawk nest, and one active prairie falcon nest were identified during the surveys. The eagle and raptor nest locations are presented in Table 1 below.

Table 1
Eagle and Raptor Nest Locations Identified During the June 7 and 9 2010 Surveys

Date	Species	Status	GPS number	General Area
June 7 2010	eagle	inactive	279	Fry Mountains
June 7 2010	eagle	inactive	295	Single Steel Tower Transmission Line (Fry Mountains area)
June 7 2010	eagle	inactive	301	Single Steel Tower Transmission Line (Fry Mountains area)
June 7 2010	eagle	inactive	307	Cougar Buttes
June 7 2010	eagle (1), prairie falcon (1)	inactive (eagle), active (falcon) fledged	310	Cougar Buttes
June 7 2010	eagle (2)*	one inactive, one active with fledgling	312	Blackhawk Mountain Area - duplicate with nest sites indicated as point 007
June 7 2010	eagle (2), raven (1)	eagle (1 active fledged, 1 inactive), raven (inactive)	315	Granite Peaks Area near Rattlesnake Canyon
June 7 2010	eagle*	inactive	317	Silver Peak area - duplicate of point 006
June 7 2010	eagle*	inactive	318	Marble Canyon Area - duplicate of nest sites indicated as point 004
June 9 2010	eagle/ red-tail hawk	Active - fledged	001	Silver Creek Area southwest of Pitzer Buttes
June 9 2010	eagle	inactive	003	Arctic Canyon Area
June 9 2010	eagle (1)*, raven (2)	all inactive	004	Marble Canyon Area - duplicate of nest sites indicated as point 318
June 9 2010	eagle	inactive	005	Rattlesnake Canyon Area to southeast of survey area

June 9 2010	eagle*	inactive	006	Blackhawk Mountain Area near Silver Peak - duplicate of nest site indicated as point 317
June 9 2010	eagle (2)*	1 inactive, 1 active with fledgling	007	Blackhawk Mountain Area north facing slope - duplicate with nest sites indicated as point 312
* = Duplicate coordinate due to surveys repeated in the same area.				

Pitzer Buttes Area

One active nest location was presumed to be of an eagle (GPS number 001, June 9), approximately 13.5 miles southwest of the project site, outside the 10-mile survey area. This nest was located in the Silver Creek area approximately 4.9 miles southwest of Pitzer Buttes. An additional survey on the ground may be required to investigate whether the nest is an eagle or red-tailed hawk nest. Results of the additional field survey will be submitted to BLM. Three inactive and one active raven nests were also identified in the Pitzer Buttes area.

Blackhawk Mountain Area

One active golden eagle nest was located on Blackhawk Mountain (GPS point 007, June 9), approximately 5.5 miles south of the project site. This is the same location as the two eagle nest sites recorded for GPS point 312, one active and one inactive nest located in the same area. The GPS point 312 was recorded further away from the actual nest location due to safety concerns at the time of the survey on June 7. Conditions improved on June 9, and an eagle fledgling was observed at GPS point 007 during the survey. The eagle was observed to have no white feathers, and is presumed to leave the nest within the next few days. The other nest in the immediate area did not appear to be used recently, and was therefore considered inactive. Approximately 2,575 feet to the southeast at Silver Peak, another inactive eagle nest was identified and recorded as GPS number 317. This area was revisited on June 9 for further investigation and was recorded as GPS number 006, a duplicate record of the same inactive nest site. An inactive raven nest was also identified in this area.

Marble Canyon and Arctic Canyon Areas

An inactive golden eagle nest recorded as GPS number 318 was identified approximately 3.7 miles to the west of the active eagle nest 007, just west of the Marble Mining Pit in Marble Canyon to the west side of SR-18 (Cushenbury Canyon). This area was further investigated on June 9 when air conditions were more favorable. The nest was recorded as GPS number 004 on June 9, a duplicate record of the same inactive nest. A second inactive eagle nest recorded as GPS number 003, and was identified approximately 1.2 miles to the west of the 004 location in the Arctic Canyon area. This area appeared to have active mining and road maintenance in the area. Two inactive raven nests were identified in this area.

Rattlesnake Canyon Area

An active eagle nest was recorded as GPS number 315, located just east of Granite Peaks along Rattlesnake Canyon in the southeastern portion of the survey area approximately 10.6 miles southeast of the project site. At the time of the survey, the nest appeared to have recently fledged. An inactive golden eagle nest was located in the same general area. One inactive raven nest was also identified within this area. A second inactive golden eagle nest recorded as GPS number 005 was located approximately 4 miles to the south, upstream in Rattlesnake Canyon. This site was outside the 10-mile survey area.

Cougar Buttes Area

Two inactive golden eagle nests were identified and recorded as GPS 307 and 310 in the Cougar Buttes area approximately 4.3 miles to the north of the project site. An active prairie falcon nest was also identified and recorded as GPS 310. This area was identified as having maintained roads and private property nearby. Eagles generally avoid areas with constant human disturbances. This area does not appear to be suitable for future nest sites. Three inactive and one active raven nest were also identified in the Cougar Buttes area.

Fry Mountain Area

One inactive golden eagle nest was identified and recorded as GPS number 279, located approximately 7.1 miles northeast of the project site. This area is approximately 7.2 miles east of GPS number 310. An inactive red-tailed hawk nest was identified approximately 2.9 miles to the northeast of this location. One active and two inactive raven nests were also identified in the Fry Mountain and Soggy Lake area.

Single Steel Tower Transmission Lines

Two inactive eagle nests recorded as GPS numbers 295 and 301 were identified along the Single Steel Tower Transmission Lines approximately 9.5 and 7.6 miles to the northeast of the project site, respectively. These two nest sites were in very poor condition. Approximately 13 inactive and 7 active raven nests were identified along this transmission line across the survey area.

SUMMARY

Two active eagle nests were identified during the survey to south of the project site. One was located approximately 10.6 miles southeast of the project site near Rattlesnake Canyon, a second approximately 5.5 miles south of the project site in the Blackhawk Mountain Range. A third potentially active eagle or red-tailed hawk nest was located approximately 13.5 miles southwest of the project site. An additional eleven inactive eagle nests, 35 raven nests, one inactive red-tailed hawk nest, and one active prairie falcon nest were also identified within the survey area. No bald eagles or potential nesting sites were detected during the survey.

The Chevron Energy Solutions solar site is 516 acres. The topography of the solar site and the immediate area is not suitable for eagle nests. In addition, maintained roads such as SR 247, Foothill

Road, Donaldson Road, and Santa Fe Fire Road border the solar site. Generally, eagles are very shy creatures and avoid nesting near areas with continued human disturbance such as roads and residences. Construction of the solar site may reduce foraging areas for the eagles. However, no eagles were detected foraging in the area during the Spring and Fall Avian Point Count Surveys conducted by Chambers Group. For more details regarding the biological surveys conducted on the project site, please see the *Comprehensive Biological Resources Assessment for the Chevron Solar Project Site, Lucerne Valley California April 2010*.

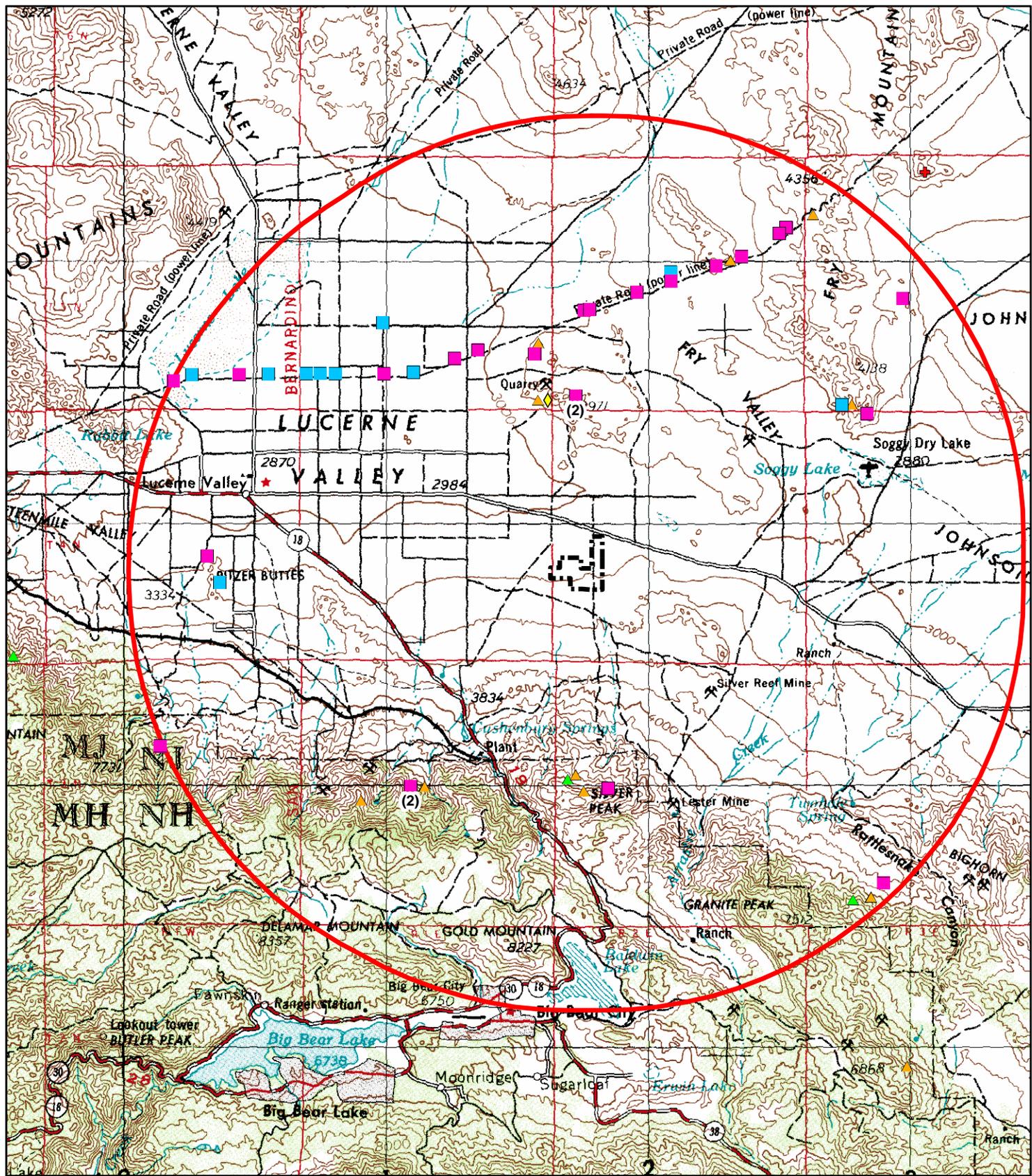
If you have any questions or comments regarding this memo report or other related issues, please call me at (949) 261-5414 x 7288.

Sincerely,

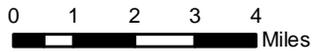


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Attachment: 2010 Eagle Survey Map



- Legend**
-  Site 10 Mile Buffer
 -  Site Boundary
 -  Eagle (Active)
 -  Eagle (Inactive)
 -  Prairie falcon (Active)
 -  Raven (Active)
 -  Raven (Inactive)
 -  Red-tailed hawk (Inactive)



2010 Eagle Surveys
 Chevron Energy Solutions Solar Site
 Lucerne Valley, California

