

**Appendix 5.2H**  
**Avian Point Count Survey Report**

---

# Hidden Hills Spring Avian Surveys

PREPARED FOR: James Marble/SCO  
PREPARED BY: Dan Williams/SAC  
DATE: May 10, 2011  
PROJECT NUMBER: 420246.AP.FS.AV

The Hidden Hills Project Site area is being considered by BrightSource Energy as a solar power site. As part of the ecological investigation for the site, avian surveys were conducted based on the U.S. Bureau of Land Management (BLM) avian survey protocol. The protocol requires that eight point counts be conducted per square mile, that each point be surveyed weekly for four weeks between sunrise and four hours after sunrise, that each point count survey be 10 minutes in duration, and that each point count circle have a 100-meter radius and be at least 250 meters from the next circle. As necessary, the point count surveys can be extended into a fifth hour. The purpose of the bird counts is to determine the bird use and diversity within the Hidden Hills Project Site during the spring.

Under these criteria, two CH2M HILL biologists completed 4 rounds of avian point count surveys at 39 survey points on the Hidden Hills Project Site near Calvada Springs in Inyo County, California between March 23<sup>rd</sup> and April 14<sup>th</sup>, 2011. These point counts were located on transect lines that run across the boundaries between sections within the Hidden Hills Project Site on Figure 1.

## Methodology

Day One: Accessed the east end of Transect 3 at Avenue E via Stateline Road. One biologist was dropped off at the east end of Transect 3 and surveyed their way west, while the other biologist drove the vehicle to the transect's midpoint and surveyed the nine points west of that. The first biologist's final survey was the midpoint where the vehicle was parked. This created a long period of silence after the vehicle was running there to maximize the chances of bird activity returning to pre-disturbance condition.

Day Two: Accessed midpoint of Transect 2 via Silver Street, and two biologists surveyed in opposite directions. Upon completion of Transect 2, the two biologists returned to the vehicle and drove up Silver Street to the Nevada border and up Stateline Road to Transect 1 at Avenue A. Here again, one biologist was dropped off at the east end of Transect 1 and surveyed their way west, while the other biologist drove the vehicle to the transect's midpoint and surveyed the three points west of that.

## Site Description

The habitat on the site could generally be described as open desert scrub populated extensively with creosote and sagebrush, crossed by a few intermittent washes, and sitting in a wide valley framed by mountains. Elevation on the site ranges from approximately 2,585 to 2,685 feet while

peaks over 6'000 feet stand within 10 miles to the west, and peaks over 11,000 feet stand within 25 miles to the northeast.

## Results

During the point count surveys, 498 individual birds of 23 species were observed. An additional 136 individuals and 6 species were observed outside of the point count circles, in transit between the point count locations, and flying over the site. Although nest searches were not conducted, nests and/or fledglings of two species were observed within the point count circles, identifying these species as nesting within the survey area. These species were horned lark and black-throated sparrow. These two species were also observed in higher numbers than all others on the site. Three CDFG and/or BLM sensitive species were observed during the surveys. These were northern harrier, golden eagle, and loggerhead shrike.

TABLE 1  
Birds Observed during Avian Surveys Conducted from March 23 through April 14, 2011 at the Hidden Hills Project Site

Common Name <sup>a</sup>	Scientific Name	Total Point Count <sup>c</sup>	Total Obs <sup>d</sup>
<b>Northern Harrier</b>	<i>Circus cyaneus</i>	1	3
<b>Golden Eagle</b>	<i>Aquila chrysaetos</i>	0	1
Red-tailed Hawk	<i>Buteo jamaicensis</i>	0	1
Prairie Falcon	<i>Falco mexicanus</i>	1	2
American Kestrel	<i>Falco sparverius</i>	1	1
Rock Pigeon	<i>Columba livia</i>	9	10
Eurasian Collared-Dove	<i>Streptopelia decaocto</i>	12	37
Mourning Dove	<i>Zenaida macroura</i>	1	1
Dusky Flycatcher	<i>Empidonax oberholseri</i>	1	1
Say's Phoebe	<i>Sayornis saya</i>	3	3
<b>Loggerhead Shrike</b>	<i>Lanius ludovicianus</i>	4	5
American Crow	<i>Corvus brachyrhynchos</i>	0	1
Common Raven	<i>Corvus corax</i>	9	33
Horned Lark <sup>b</sup>	<i>Eremophila alpestris</i>	76	81
Barn Swallow	<i>Hirundo rustica</i>	2	4
Violet-green Swallow	<i>Tachycineta thalassina</i>	1	1
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>	0	3
Northern Mockingbird	<i>Mimus polyglottos</i>	0	1
Sage Thrasher	<i>Oreoscoptes montanus</i>	26	28
unknown thrasher	<i>Toxostoma sp.</i>	4	8
Chipping Sparrow	<i>Spizella passerina</i>	5	5
Brewer's Sparrow	<i>Spizella breweri</i>	42	47

**TABLE 1**  
Birds Observed during Avian Surveys Conducted from March 23 through April 14, 2011 at the Hidden Hills Project Site

<b>Common Name<sup>a</sup></b>	<b>Scientific Name</b>	<b>Total Point Count<sup>c</sup></b>	<b>Total Obs<sup>d</sup></b>
Sage Sparrow	<i>Amphispiza belli</i>	36	39
Black-throated Sparrow <sup>b</sup>	<i>Amphispiza bilineata</i>	191	211
Lark Sparrow	<i>Chondestes grammacus</i>	1	1
White-crowned Sparrow	<i>Zonotrichia leucophrys</i>	30	30
Western Meadowlark	<i>Sturnella neglecta</i>	0	2
House Finch	<i>Carpodacus mexicanus</i>	35	74
Lesser Goldfinch	<i>Carduelis psaltria</i>	7	10

<sup>a</sup> Common names in bold are CDFG and/or BLM sensitive species

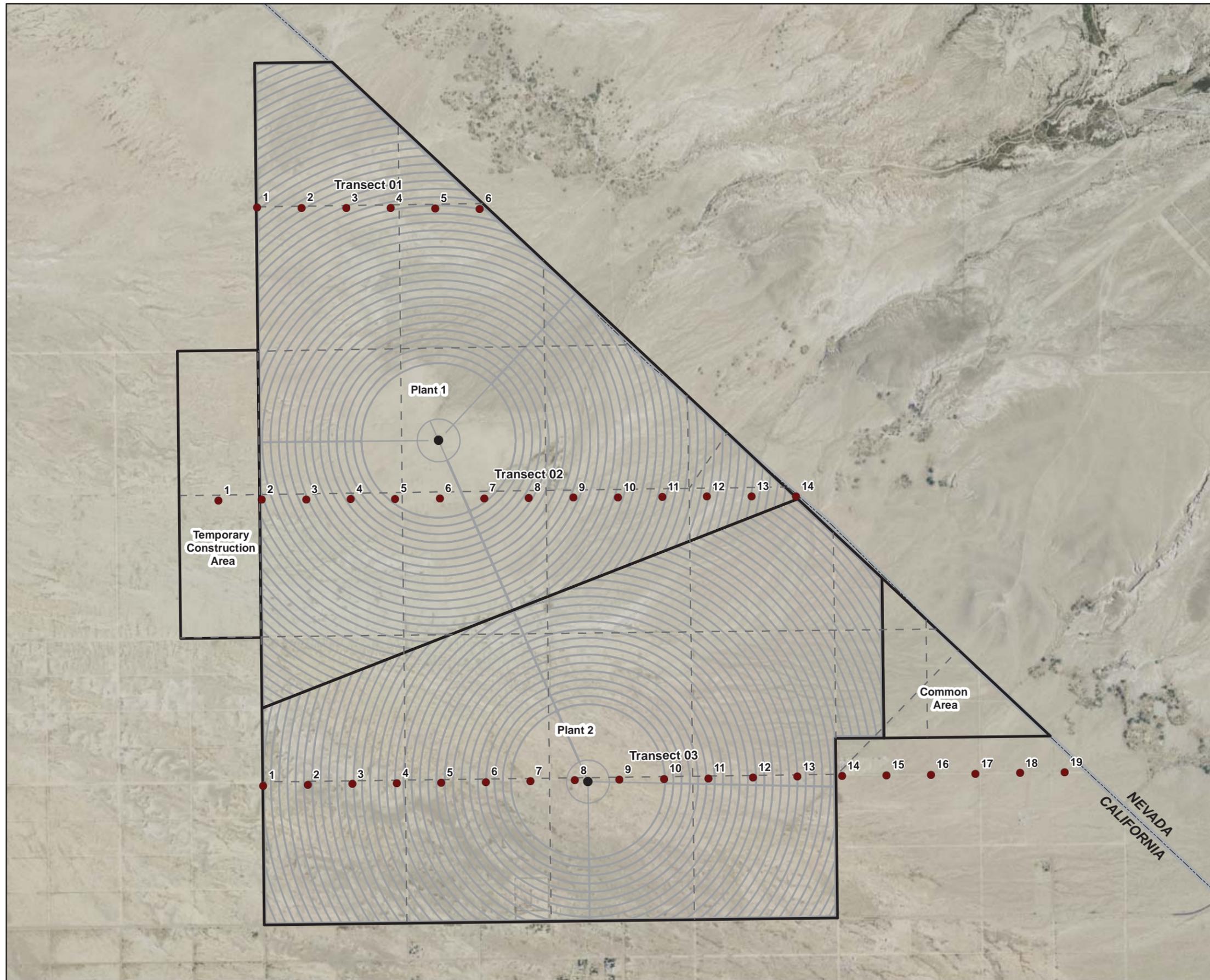
<sup>b</sup> Observed nests or fledglings

<sup>c</sup> Birds observed during point counts in point count circles

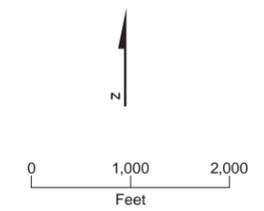
<sup>d</sup> Birds observed during point counts, in transit along transects, and flyovers.

**TABLE 2**  
Results (Total Number of Birds and Species Observed) from Four Bird Surveys Conducted from March 23 through April 14, 2011, at the Hidden Hills Area

	<b>March 23</b>	<b>March 30</b>	<b>April 6</b>	<b>April 13</b>	<b>Spring</b>
<b>Transect 1 (6 Pts)</b>					
# Birds Observed	16	15	16	16	63
# Species Observed	3	4	3	4	6
<b>Transect 2 (14 pts)</b>					
# Birds Observed	42	44	32	45	163
# Species Observed	10	10	9	8	16
<b>Transect 3 (19 pts)</b>					
# Birds Observed	46	75	70	81	272
# Species Observed	9	11	12	14	18



- LEGEND**
- Point Count (250 meters)
  - Solar Towers
  - - Site Road
  - Solar Field Heliostat Lines
  - ▭ Project Boundary
  - ▭ Site 250-ft Buffer



**Figure 1**  
**Avian Transects and Point Counts**  
 Hidden Hills Solar Electric Generating System