3.2 Biological Resources

3.2.1 Introduction

This section analyzes the potential impacts to biological resources associated with the construction and operation of the proposed Project. Information contained in this section is summarized from the Biological Technical Report (2011 BTR) for the Centinela Solar Energy Project (Heritage, 2011a), the Centinela Solar Energy Project Biological Technical Report Addendum 1 (Heritage, 2011b), the Burrowing Owl Mitigation and Monitoring Plan (Heritage, 2011c), and the 2011 FEIR. The technical reports and mitigation plan are provided as Appendix C of this SEIR. The assessments were based on the information and guidelines provided in CEQA. Existing biological conditions are presented, along with pertinent federal, state, and local regulations. Mitigation measures are recommended, as necessary, to reduce potentially significant impacts to biological resources to less than significant impacts.

3.2.2 Environmental Setting

The biological conditions previously described in Section 3.12 of the 2011 FEIR are similar to those that currently exist for the proposed Project; however, the site has since been graded and developed with solar facilities as part the CSE Facility. Therefore, the environmental setting for the proposed Project location consists of disturbed, developed land. There is no agricultural or desert land within the boundaries of the existing CSE facility site, which includes the proposed BESS location. The overall CSE facility site is generally surrounding by existing solar development, agriculture, roadways, and existing IID facilities.

The 2011 FEIR biological survey area included the CSE facility site plus a buffer area that collectively totaled 5,418 acres. A total of 4,213 acres of the survey area was on private lands. The remaining 1,205 acres were located on lands managed by the BLM (associated with the transmission line as part of the CSE Facility). A background on existing biological resources in the Project area is provided in the following subsections. The pre-construction conditions are described for the lands associated with the CSE Project, which includes the BESS location and associated buffer areas.

3.2.3 Topography, Soils, and Drainage

The survey area identified in the 2011 BTR is within the Yuha Basin of the Colorado Desert. The survey area was within agricultural lands and was surrounded by agriculture to the north, south, and east. The survey area now contains the CSE facility solar array, which covers approximately 1,600 acres of the original survey area. This same survey area is inclusive of the proposed Project site.

Isolated drainages are in the survey area. Alluvial fans and small washes extend from the northeast near Mount Signal to the Westside Main Canal. The Westside Main Canal extends along the western boundary of the existing solar array and bisects the array for approximately 5,000 feet north of the United States – Mexico border. Upland areas in the survey area are relatively flat; elevation ranges from sea level to 60 feet above mean sea level. As such, minimal grading was required to construct the existing CSE Facility. Excavations were required to construct the solar array for underground wiring and cables; placing electric poles; preparing equipment pads; and for common service facilities. Vegetation in the survey area was sparse when surveyed. Vegetation was cleared during construction of the solar array. The survey area contained sand that ranged from soft and rolling to flat and compact.

According to the 2011 BTR (Appendix C), there are eight major soil types found within the survey area, including Rositas, Niland, Carsitas, Glenbar, Imperial, Indio–Vint, Holtville, and Meloland soils (NRCS 2006 and 2011). These soils are primarily found on flat basin floors and are formed from clay, silt, and sandy alluvium materials.

3.2.4 General Vegetation

The 2011 BTR mapped 95 plant species, representing 33 plant families, within the survey area. The majority of these species (82 percent) were native to California while the remaining 18 percent were non-native, introduced species. A complete list of plant species identified in the original survey is included in Appendix C of this SEIR. Table 3.12-2 of the Draft Environmental Impact Report (DEIR) provides a list of vegetation communities and land cover types within the survey area. Seventeen vegetation communities were mapped within the private land survey area. No state-listed plant species were identified as having the potential to occur at the proposed Project site. No state-listed plant species were observed during rare plant surveys.

The Project site was previously actively farmed. The site is now fenced along the north, west, and south edges. It is located between a switchyard to the west and the solar array to the east. The Project site was previously graded and is covered with decomposed compacted soil.

3.2.5 General Wildlife

The wildlife investigation in the 2011 BTR encompassed the proposed Project site. Wildlife observed during the survey were typical of the disturbed and agricultural habitats. Table 3.2-1 provides a list of wildlife species observed or detected during the survey.

Table 3.2-1: Wildlife Species Observed or Detected during CSE Wildlife Survey

Common Name	Scientific Name
Birds	
American avocet	*Recurvirostra Americana*
Abert's towhee	*Pipilo aberti*
American coot	*Fulica americana*
American kestrel	*Falco sparverius*
American pipit	*Anthus rubescens*
Anna's hummingbird	*Calypte anna*
Bank swallow	*Riparia riparia*
Barn owl	*Tyto alba*
Barn swallow	*Hirundo rustica*
Bell's vireo	*Vireo bellii*
Belted kingfisher	*Megaceryle alcyon*
Black phoebe	*Sayornis nigricans*
Black-crowned night heron	*Nycticorax nycticorax*
Black-necked Stilt	*Himantopus mexicanus*
Black-tailed gnatcatcher	*Polioptila melanura*
Blue grosbeak	*Passerina caerulea*
Blue-gray gnatcatcher	*Polioptila caerulea*
Brewer's blackbird	*Euphagus cyanocephalus*
Brown-headed cowbird	*Molothrus ater*
Burrowing owl	*cunicularia*
California gull	*Larus californicus*
Canada goose	*Branta canadensis*
Cattle egret	*Bubulcus ibis*
Cliff swallow	*Petrochelidon pyrrhonota*
Common ground dove	*Columbia passerina*
Common moorhen	*Gallinula chloropus*
Common raven	*Corvus corax*
Common yellowthroat	*Geothlypis trichas*
Cooper's hawk	*Accipiter cooperii*
European starling	*Sturnus vulgaris*
Gambel's quail	*Callipepla gambelii*
Glossy ibis	*Plegadis falcinellus*
Golden eagle	*Aquila chrysaetos*
Great blue heron	*Ardea herodias*
Great egret	*Ardea alba*
Great-tailed grackle	*Quiscalus mexicanus*
Greater roadrunner	*Geococcyx californianus*
Greater yellowlegs	*Tringa melanoleuca*
Green heron	*Butorides virescens*

Common Name	Scientific Name
Hermit warbler	*Dendroica occidentalis*
Horned lark	*Eremophila alpestris*
House finch	*Carpodacus mexicanus*
Killdeer	*Charadrius vociferus*
Lark bunting	*Calamospiza melanocorys*
Lark sparrow	*Chondestes grammacus*
Lesser nighthawk	*Chordeiles acutipennis*
Loggerhead shrike	*Lanius ludovicianus*
Long-billed curlew	*Numenius americanus*
Long-billed dowitcher	*Limnodromus scolopaceus*
Macgillivray's warbler	*Oporornis tolemiei*
Mallard	*Anas platyrhynchos*
Mourning dove	*Zenaida macroura*
Northern flicker	*Colaptes auratus*
Northern harrier	*Circus cyaneus*
Northern mockingbird	*Mimus polyglottos*
Northern rough-winged swallow	*Stelgidpteryx serripennis*
Prairie falcon	*Falco mexicanus*
Purple martin	*Progne subis*
Red-necked phalarope	*Phalaropus lobatus*
Red-tailed hawk	*Buteo jamaicensis*
Red-winged blackbird	*Agelaius phoeniceus*
Ring-necked pheasant	*Phasianus colchicus*
Rock dove	*Columbia livia*
Rufous-crowned sparrow	*Aimophila ruficeps*
Sandhill crane	*Grus canadensis*
Savannah sparrow	*Passerculus sandwichensis*
Say's phoebe	*Sayornis saya*
Snowy egret	*Egretta thula*
Song sparrow	*Melospiza melodia*
Turkey vulture	*Cathartes aura*
Unidentified bird	*Unidentified Bird Aves sp.*
Unidentified empidonax flycatcher	*Empidonax sp.*
Unidentified gnatcatcher	*Polioptila sp.*
Unidentified hummingbird	*Trochilidae sp.*
Unidentified sparrow	*Eberizidae sp.*
Unidentified warbler	*Parulidae sp.*
Verdin	*Aurparus flaviceps*
Violet-green swallow	*Tachycineta thalassina*
Western bluebird	*Sialia mexicana*
Western kingbird	*Tyrannus verticalis*

Common Name	Scientific Name
Western meadowlark	*Sturnella neglecta*
Western sanpiper	*Calidris mauri*
Western tanager	*Piranga ludovciana*
White-crowned sparrow	*Zonotrichia leucophrys*
White-faced ibis	*Ibis Plegadis chihi*
White-throated swift	*Swift Aeronautes saxatalis*
White-winged dove	*Zenaida asiatica*
Willow flycatcher (Southtwestern)	*Empidonax trailii extimus*
Wilson's snipe	*Gallinago delicata*
Yellow-headed blackbird	*Xanthocephalus xanthocephalus*
Yellow-rumped warbler (Audubon's)	*Dendroica coronata auduboni*
Mammals	
Bobcat	*Lynx rufus*
Coyote	*Canis latrans*
Desert cottontail	*Sylvilagus audubonii*
Kangaroo rat	*Dipodomys sp.*
Round-tailed ground squirrel	*Xerospermophilus tereticaudus*
Reptiles	
Desert Iguana	*Dipsosaurus dorsalis*
Flat-tailed horned Lizard	*Phrynosoma mcallii*
Gecko	*Coleonix sp.*
Sidewinder	*Crotalus cerastes*
Sonoran gopher snake	*Pituophis catenifer affinis*
Western whiptail	*Cnemidophorus tigris*
Amphibians	
American bullfrog	*Rana catesbeiana*

Source: Centinela Solar Energy Project EIR/EA, 2011

3.2.5.1 Invertebrates

The 2011 BTR identified suitable habitat for a wide variety of invertebrates. The survey area contained harvester ants (*Pogonomyrmex* spp.), grasshoppers (*Orthoptera* spp.), flies (*Diptera* spp.) cabbage white (*Pieris rapae*) and other butterflies and moths (*Lepidoptera* spp.).

3.2.5.2 Amphibians

The only amphibian observed in the BTR in the survey area was the American bullfrog (*Rana catesbeiana*). Drains in the survey area that carry water almost permanently provide habitat for bullfrogs. Amphibians could access the proposed Project site via holes in the chain link fence around its perimeter to the north, west, and south. Amphibians could also access the site from the solar array area to the east.

3.2.5.3 Reptiles

No reptile species were observed in the 2011 BTR survey area on private land, though a wide variety of reptile species could inhabit agricultural and/or desert habitats in the area. Reptiles could access the proposed Project site via holes in the chain link fence around its perimeter to the north, west, and south. Reptiles could also access the site from the solar array area to the east.

3.2.5.4 Birds

Bird diversity was relatively low in the majority of the 2011 BTR survey area, though several species observed were observed in large numbers. Diversity was greatest near larger drains and Greeson Wash. Cliff swallows (*Petrochelidon pyrrhonota tachina*) and northern roughwinged swallows (*Stelgidopteryx serripennis*) were present in large numbers west of the proposed Project site, near the SR 98 bridge that crosses the Westside Main Canal. These species use the underside of the bridge as a nesting area. Agricultural fields in the area provide foraging habitat for these two species.

Winter and spring avian use surveys were completed for the EIR in the survey area, which encompassed the proposed Project site. Surveys identified the most frequently detected species, most widespread, and most numerous species. During winter surveys, the most commonly observed species were all common agricultural associates. The western meadowlark (*Sturnella neglecta*) was the most frequently detected species and the most widespread (264 total detection; 2.06 detections per point). The species was observed at 86 points (67.19 percent). Other frequently detected species include the horned lark (*Eremophila alpestris*; 16 detections; 0.98 detections per point). The horned lark was also the most numerous species observed during the winter survey (747 observed; 25.94 percent of all individuals observed.) The second most numerous species was the long-billed curlew (*Numenius americanus*; 492 observed; 17.08 percent of all individuals observed), which was also frequently detected (32 detections; 40 detections per point). Other frequently detected species included black phoebe (*Sayornis nigricans*; 47 detections; 0.37 detections per point) and song sparrow (*Melospiza melodia*; 32 detections; 0.25 detections per point). Other widespread species included horned lark (64 points; 50.0 percent), black phoebe (40 points; 31.25 percent), and mourning dove (*Zenaida macroura*; 30 points; 23.44 percent).

Similar to winter surveys, the most commonly observed species were agricultural associates. During the spring avian use surveys, red-winged blackbirds were the most frequently detected species (413 total detection; 3.23 detections per point) and the most numerous species (3,835 observed; 54.56 percent of all individuals observed). Other frequently detected species include the western meadowlark (341 detections; 2.66 detections per point); long-billed curlew (48 detections; 0.38 detections per point), mourning dove (40 detections; 0.31 detections per point), horned lark (36 detections, 0.28 detections per point), and cliff

swallow (32 detections, 0.25 detections per point). Other numerous species observed in the survey included cattle egrets (*Bubulcus ibis*; 792 observed, 11.27 percent of all individuals observed), and long-billed curlews (725 observed, 10.31 percent of all individuals observed). Western meadowlark was the most widespread species (observed at 88 points; 68.75 percent). Other widespread species included the red-winged blackbird (86 points; 67.19 percent), horned lark (31 points, 24.2 percent), mourning dove (31 points, 24.22 percent), cliff swallow (26 points, 20.31 percent), and long-billed curlew (26 points, 20.31 percent).

There are no trees on the proposed Project site. Several trees are located south and west of the site along the Westside Main Canal.

3.2.5.5 Mammals

Suitable mammal habitat was limited to agricultural areas in the survey area in the 2011 survey. Agricultural land within the CSE facility boundary has been converted to uses associated with solar energy infrastructure. Previously detected and observed species included desert black-tailed jackrabbit (*Lepus californicus deserticola*), desert cottontail (*Sylvilagus audubonii*), round-tailed ground squirrel (*Spermophilus tereticaudus*), desert kangaroo rat (*Dipodomys deserti deserti*), and coyote (*Canis latrans*). Smaller mammal species could access the proposed Project site via holes in the chain link fence around its perimeter to the north, west, and south. Smaller species could also access the site from the existing CSE facility area to the east. Larger species, such as coyotes, may be restricted in movement due to fencing around the CSE perimeter, and are thus less likely to be found at the proposed Project site.

3.2.6 Sensitive Biological Resources

The following sections provide information on special status plant species, federally listed plant species, and state listed plant species.

3.2.6.1 Special Status Plant Species

No sensitive plant species were observed in the survey area during the 2011 survey. No sensitive plant species are anticipated to occur given the disturbances associated with previous agricultural activities; construction of the CSE facility and its associated disturbance to vegetation in the area; and the limited suitable native habitat in the vicinity.

3.2.6.1.1 Federally Listed Species

No federally listed threatened or endangered plant species were identified in the 2011 FEIR as having the potential to occur within the survey area. No federally listed threatened or endangered plant species are

identified, as expected to occur at the proposed Project site (USFWS, 2019). No federally listed threatened or endangered plant species were observed during the focused rare plant surveys.

3.2.6.1.2 State Listed Species

As concluded in the 2011 FEIR, no state-listed plant species were found as having the potential to occur within the private lands portion of the survey area based on a literature review. No state-listed species were observed onsite during the focused rare plant surveys associated with the 2011 FEIR. A review of California Natural Diversity Database data in May 2019 revealed one state-listed plant species in the CSE Facility. The hairy stickleaf was observed northeast of the Project site, on the north side of Greeson Wash. The hairy stickleaf is not a state-listed species but is on the Special Vascular Plants, Bryophytes, and Lichens list (CDFW, 2019). Its rare plant rank is 2B.3. The hairy stickleaf was not observed at the Project site. The Project site was previously cleared and graded. Due to this, it is not anticipated that the hairy stickleaf would be found at the Project site and would not be impacted by the Project.

3.2.6.2 Project Special Status Wildlife Species

The following sections provide information on special status wildlife species, federally listed wildlife species, and state listed wildlife species.

3.2.6.2.1 Federally Listed Species

The 2011 FEIR evaluated the southwestern willow flycatcher, Yuma clapper rail, and peninsular bighorn sheep due to habitat requirements and/or the potential for occurrence in the private land portion of the survey area. Each is discussed in the sections below in terms of habitat required and potential for occurrence at the proposed Project site. No federally listed threatened or endangered wildlife species were identified as expected to occur within the CSE facility boundary (USFWS, 2019). No federally listed threatened or endangered wildlife species were observed during the 2011 field surveys.

Southwestern Willow Flycatcher

Species Profile: Southwestern willow flycatchers are a federally listed endangered species. All willow flycatchers in California are state listed as endangered. This includes the southwestern willow flycatcher as well as two subspecies (*Empidonax trailii brewsteri* and *E.t. adastus*).

Critical Habitat: Critical habitat was designated for the southwestern willow flycatcher in San Diego County, California, and in Arizona in 2005. No critical habitat has been designated in Imperial County, California.

Occurrence: Southwestern willow flycatchers are unlikely to nest within solar arrays and are therefore unlikely to be located in the existing CSE Facility. The species may migrate through the area and potentially forage within the arrow weed scrub and tamarisk scrub habitats near the Westside Main Canal, Mount Signal Drain, or the Greeson Wash. These drainages were identified as potential habitat during the 2011 BTR survey.

Willow flycatchers were detected during 2011 biological surveys for the existing CSE facility and other recent projects in the area along the Westside Main Canal and Wormwood Canal. Two subspecies are known to migrate through the CSE facility area – the southwestern willow flycatcher and the northwestern willow flycatcher. Due to the species' similar appears and nearly identical vocalizations, it is difficult to distinguish between the two species during biological surveys. It is unknown which subspecies was detected during the surveys, but the dates of the surveys align with the peak migratory period of *E. t. brewsteri*. During surveys for the ISEC West and ISEC South projects, it was concluded that the willow flycatchers detected were migrants. No resident or nesting southwestern willow flycatchers were detected.

Due to the lack of tall and dense riparian vegetation along drainages in the area, it was concluded that no willow flycatcher breeding habitat was located within the CSE survey area in the 2011 BTR. A review of species occurrence records in the California Natural Diversity Database did not indicate any observations of willow flycatchers in the vicinity of the proposed Project site. Based on this, it is anticipated that southwestern willow flycatchers in the vicinity of the proposed Project site are migrants and may forage in tamarisk and arrow weed vegetation during migration. Protocol-level surveys for the southwestern willow flycatcher were not required by the BLM or USFWS during the 2011 EIR.

Yuma Clapper Rail

Species Profile: The Yuma clapper rail is a federally listed endangered species. The species is a state listed threatened species. The Yuma clapper rail is also protected under the Migratory Bird Treaty Act and similar state laws.

Critical Habitat: No critical habitat has been designated for the Yuma clapper rail. No critical habitat has been proposed.

Occurrence: As had been indicated by the 2011 survey, the Yuma clapper rail was unlikely to nest within the survey area, which encompassed the proposed Project site. The nearest known location for the species is within the Wixom Drain near Fig Lagoon, which is approximately 2.7

miles north of the Imperial Valley Substation. The nearest suitable nesting habitat is along the New River, over 5 miles northeast of the proposed Project site. Drainages in the area may provide foraging habitat or may be used as dispersal corridors but were determined to be unlikely breeding habitat due to the steepness of the channels and the high level of human disturbance adjacent to the drainages. There is also a low potential for Yuma clipper rail to forage in the areas adjacent to the Westside Main Canal, Mount Signal Drain, and Greeson Wash due to the human disturbance in the area. The Yuma clipper rail was not observed during biological surveys conducted during the 2011 BTR for the existing CSE Facility, nor was it observed during surveys for the ISEC West and ISEC South projects (RECON, 2010a; RECON, 2010b).

Peninsular Bighorn Sheep

Species Profile: Peninsular bighorn sheep (*Ovis canadensis nelson*) is a federally listed endangered species. The species is state listed as threatened.

Critical Habitat: Western Imperial County contains designated critical habitat for the peninsular bighorn sheep. The designated critical habitat is over 23 miles west of the proposed Project site.

Occurrence: Peninsular bighorn sheep are unlikely to be located near the proposed Project site because the area is currently fenced and entirely within the CSE Facility. The area also does not contain the steep, rocky terrain that provides habitat for the species. The drainages near the Project site are far from the corridors between ranges and are unlikely to provide a source of foraging habitat or water. The nearest recorded location of a peninsular bighorn sheep is approximately 18 miles west of the 2011 BTR survey area near Ocotillo, California. Suitable year-round habitat is located approximately 13 to 16 miles west of the survey area in the Coyote, In-Ko-Pah, and Jacumba mountains. Lastly, the area surrounding the proposed Project site has been highly modified, previously by agricultural activities and most recently by the addition of the CSE Facility. Peninsular bighorn sheep are sensitive to human activity and disturbance and are thus unlikely to use the area for foraging.

Peninsular bighorn sheep were not detected during biology surveys conducted in the area between 2009 and 2011. Due to the lack of suitable habitat, location of the proposed Project within the fenced existing CSE Facility, distance from suitable habitat, lack of detection in the survey area, and unsuitable nature of the survey area to serve as a corridor for peninsular bighorn sheep, the species is not expected to occur within the proposed Project site.

3.2.6.2.2 State Listed Species

The 2011 FEIR evaluated four state-listed wildlife species based on their known occurrences in Imperial County. The species investigated were the greater sandhill crane (*Grus canadensis tabida*), Yuma clapper rail (*Rallus longirostris yumanensis*), barefoot banded gecko (*Coleonyx switaki*), and peninsular bighorn sheep (*Ovis canadensis nelson*). The Yuma clapper rail and peninsular bighorn sheep are discussed in Section 3.2.4.2.1. The greater sandhill crane and barefoot banded gecko are discussed in the sections below in terms of habitat required and potential for occurrence at the proposed Project site.

A review of California Natural Diversity Database data in May 2019 revealed two observations of species within the CSE Facility: the flat-tailed horned lizard (FTHL) and burrowing owl. The FTHL observation was recorded in 1933 and was located east of the Project site. The burrowing owl observations were northeast of the Project site on the northside of the Greeson Wash. The FTHL is not a state-listed species, however. Federal protection of the species was withdrawn in 2006 and no suitable habitat exists at the Project site for the species. FTHL inhabits portions of Riverside, San Diego, and Imperial counties in California. Habitat for the FTHL includes sand dunes, sheets, hummocks, and gravelly washes. FTHL are believed to be most abundant in creosote bush scrub habitat but also inhabit desert scrub, desert wash, succulent shrub, alkali scrub, and sparsely vegetated sandy flats. During the 2011 BTR, focused surveys occurred in the CSE Gen-tie line corridor but did not take place within the CSE footprint, likely because it was determined that no suitable habitat existed in this area. The CSE facility footprint was primarily agricultural fields prior to the construction of the solar array. Suitable habitat does not exist at the Project site, as the site was cleared and graded during the construction of the CSE facility and currently consists of compacted soil.

The burrowing owl is not a state-listed species but is protected under the Migratory Bird Treaty Act of 1918 (MBTA) and is a Species of Special Concern. Burrowing owls are discussed in Section 3.2.4.2.3.

Greater Sandhill Crane

Species Profile: The greater sandhill crane (*Grus canadensis tabida*) is state listed as threatened. It is also protected under the MTBA and similar state laws.

Habitat: The greater sandhill crane is known to winter in Imperial County, California. The species breeds only in Siskiyou, Modoc, Lassen, Sierra Valley, Plumas and Sierra counties. The greater sandhill crane prefers wet meadows and shallow lacustrine and freshwater emergent wetlands in the summer. The species spends winter in the Sacramento and San Joaquin valleys between Tehama County to Kings County. The species prefers treeless plains, primarily

frequenting grassland habitats, moist croplands, and open, emergent wetlands. Another subspecies, the lesser sandhill crane (G. c. canadensis) frequents similar habitats in the San Joaquin and Imperial valleys, as well as the Sacramento Valley to a lesser extent. Flocks of sandhill cranes in Imperial County may be partly or largely greater sandhill crane, which historically wintered more commonly in southern California. Its numbers have declined in the area and throughout its range. The species is rare outside its known wintering grounds. The greater sandhill crane feeds on a variety of vegetation species, such as grasses forbs, cereal crops, roots, tubers, seeds, and grains. The species also feeds on earthworms, insects, mice, small birds, snakes, frogs, and crayfish.

Occurrence: The greater sandhill crane likely forages in agricultural areas near the Project site in the winter. The species is not expected to breed near the proposed Project site.

Barefoot Banded Gecko

Species Profile: The barefoot banded gecko is state listed as threatened. The species is found along the eastern face of the Peninsular Range in southern California. A population of barefoot banded gecko is known to occur in the Coyote Mountains in Imperial County.

Habitat: The barefoot banded gecko is found on arid desert slopes in the Peninsular Range from Borrego Springs south to the Baja California border. The species prefers arid rocky areas on flatlands, canyons, and thornscrub. The gecko prefers areas with large boulders and rock outcrops where vegetation is sparse. It has been found at elevations near sea level to over 2,000 feet above sea level. The barefoot banded gecko is insectivorous and breeds from May to July.

Occurrence: The barefoot banded gecko is unlikely to occur at the proposed Project site due to lack of suitable habitat in the area. The proposed Project site was cleared and graded when the CSE facility was constructed. It does not contain large boulders or rocky outcrops.

3.2.6.2.3 California Species of Special Concern and Fully Protected Species

The 2011 EIR investigated eight California Species of Special Concern: the burrowing owl (*Athene cunicularia*), California leaf-nosed bat (*Macrotus californicus*), pallid bat (*Antrozous pallidus*), mountain plover (*Charadrius montanus*), loggerhead shrike (*Lanius ludovicianus*), crissal thrasher (*Toxostoma crissale*), least bittern, and LeConte's thrasher (*Toxostoma lecontei lecontei*). Four of these species were observed during the 2011 BTR survey or during surveys for nearby projects: loggerhead shrike, crissal thrasher, least bittern, and LeConte's thrasher. Golden eagles (Aquila chrysaetos) were also observed in the survey area. Golden eagles are a CDFW Fully Protected Species and are protected under the Bald and

Golden Eagle Protection Action, MBTA, and Fish & Game Code sections 3503, 3503.5, and 3513. The following sections evaluate the potential for occurrence of these California Species of Special Concern and Fully Protected Species in the proposed Project site within the CSE Facility.

Burrowing Owl

Species: The burrowing owl is a California Species of Special Concern. It is protected under the Migratory Bird Treaty Act and California Fish and Game Code § 3503, 3503.5, and 3513.

Habitat: Burrowing owls are found in the western United States and Mexico. The species inhabits dry, open, short-grass areas and nests from March through August. Burrowing owls dig burrows or use existing burrows and reuse the same burrow year after year. Burrowing owls feed on arthropods, small mammals, and birds. They will occasionally feed on amphibians and reptiles. Burrowing owl habitat has been reduced due to urbanization, which has contributed to the decline of the species. Other contributors to the decline include the poisoning of squirrels and prairie dogs, as well as collisions with automobiles. The species is a year-round resident in Imperial County, where it can be found in desert scrub, grassland, and agricultural areas.

Occurrence: The 2011 EIR included a focused burrowing owl survey which identified active burrows in the survey area. These burrows were primarily associated with berms and ditches lining the active agricultural fields. A total of 51 active burrows were found within the survey area. No active burrows were located in the proposed Project site. The closest burrow was located on the west side of the Westside Main Canal.

California Leaf-nosed Bat

Species: The California leaf-nosed bat is a California Species of Special Concern. It is found in desert areas of the southwestern United States.

Habitat: The California leaf-nosed bat is a year-round, non-migratory resident of southern California, where it ranges from Imperial County to the eastern portion of Riverside and San Diego counties. It inhabits desert habitats that include riparian, wash, scrub, succulent scrub, alkali scrub, and palm oasis. The bat roosts in rocky or rugged terrain, caves, or mine shafts. California leaf-nosed bats forage in flats and washes within one mile of its roost. It is a "gleaning" insectivore, capturing prey from the ground or foliage rather than in flight. Habitat loss is the primary contributor to population decline.

Occurrence: As part of the 2011 survey area, desert washes, thickets, agricultural fields, and irrigation channels were surveyed, which could potentially be used for foraging by the California leaf-nosed bat. The closest known detection of the species was approximately 25 miles northwest of the CSE facility project. No known roosts occurred within the survey area. There was also no suitable roosting habitat within or in close proximity to the survey area.

Pallid Bat

Species: The pallid bat is a California Species of Special Concern. It is a year-round resident of throughout most of California.

Habitat: Pallid bats are most commonly found in open, dry habitats. The species roosts in rocky areas during the day to avoid high temperatures, and prefers caves, crevices, and mines for roosting. Pallid bats forage over open ground and can be found in grasslands, shrublands, woodlands, and forests. The species eats large, hard-shelled prey such as beetles, grasshoppers, cicadas, spiders, scorpions, and Jerusalem crickets. Habitat loss, primarily due to human intrusion and physical habitat alteration, is the main contributor to population decline.

Occurrence: The BTR survey area contained foraging opportunities for the pallid bat. No suitable roosting habitat was located within or near the survey area, however. No known roosts were located in the survey area and the nearest reported location of a pallid bat was approximately 26 miles west of the CSE Facility. The proposed Project site was cleared and graded during the construction of the CSE Facility. Due to this, it is unlikely to have suitable foraging habitat.

Mountain Plover

Species: The mountain plover is a California Species of Special Concern. It is migratory terrestrial shorebird which winters in California, among other places, from April through June.

Habitat: During the months of April through June, mountain plover is most commonly found in the Sacramento, San Joaquin, and Imperial valleys in California. The species prefers sparsely vegetation areas such as xeric shrublands, shortgrass prairie, and barren agricultural fields. Mountain plovers forage during the day. In the Imperial Valley, mountain plovers are often found in alfalfa fields that have been harvest and grazed by domestic sheep and Bermuda grass fields that have been burned post-harvest.

Occurrence: Presence/absence surveys were performed in 2011 for the 2011 EIR in accordance with the USFWS Interim Survey Guidance for Wintering Mountain Plover (*Charadrius*

montanus) in the Imperial Valley. No mountain plovers were detected within the CSE survey area during the 2011 surveys. In addition, no mountain plover individuals were detected during surveys for the ISEC South project, which surveyed south and west of the Project site (RECON, 2010b).

Loggerhead Shrike

Species: The loggerhead shrike is a California Species of Special Concern. The loggerhead shrike is a year-round resident in southern California, including Imperial County.

Habitat: The loggerhead shrike range extends across most of the continental United States and Mexico. It is found in southern California year-round and its breeding season is from March to August. The species inhabits open habitat with perches for hunting and dense shrubs for nesting. Loggerhead shrikes are found in grassland, agricultural fields, chaparral, and desert scrub in southern California. The species feeds on small reptiles, mammals, amphibians, and insects. Urbanization, habitat loss, and pesticide use have contributed to declining populations.

Occurrence: During the 2011 BTR, loggerhead shrikes were observed regularly within the private land portions of the survey area. Agricultural areas in the area provide suitable foraging habitat for this species. The proposed Project site has been cleared, however, and no longer contains agricultural land that could be used for foraging. The nearest observed loggerhead shrike was located approximately 1,800 feet southeast of the proposed Project site. No loggerhead shrike nests were observed during the survey, though the species may nest in the mesquite or tamarisk habitat located adjacent to the survey area.

Crissal Thrasher

Species: The crissal thrasher is a California Species of Special Concern. The species can be found year-round in Imperial County, California.

Habitat: The species is fairly common in the Colorado River Valley and southeastern California deserts. The crissal thrasher can also be found in Coachella, Borrego, San Bernardino, Imperial, and Inyo counties. It inhabits dense thickets of shrubs on loose, friable soils. The species forages between and under the shrubs. It also inhabits low trees in desert riparian or desert wash habitat. The breeding season for the crissal thrasher is February to June, with a peak in March through April.

The crissal thrasher has declined in population in recent decades due to the removal of mesquite brushland for agricultural development and due to the introduction of tamarisk. Human disturbance via off-road vehicles may have impacted habitat and disturbed the species as well.

Occurrence: The crissal thrasher was observed in mesquite thickets during surveys for other projects in the area. The species requires dense thickets of shrubs or low trees in desert riparian or desert wash habitat. During the 2011 EIR, the site where the Project is proposed lacked suitable habitat due to the lack of vegetation and loose, friable soils for foraging due to agricultural activities at the site. Crissal thrashers were not observed within the survey area during surveys for the BTR. The proposed Project site was cleared and graded during construction of the CSE Facility, but still lacks dense thickets of shrubs and low trees. Portions of Greeson Wash, located east of the proposed Project site, may provide suitable habitat for the species.

Least Bittern

Species: The least bittern is a California Species of Special Concern. The species is a year-round resident in Imperial County.

Habitat: Least bitterns can be found in marshes in the western United States. The species is also found throughout the eastern United States, the Caribbean, portions of Mexico, and northern Central America. Birds in northern latitudes of the United States migrate south in the winter, though some populations in the United States are year-round residents. The least bittern population in the Salton Sink area is a year-round population. Local abundance of the species is difficult to estimate as it is secretive and rarely vocalizes in the winter. The species breeds from May through August. Breeding habitat for the species consists of freshwater and/or brackish marshes with tall, dense emergent vegetation and clumps of woody plants over deep water. The species breeds in cattail “islands” and builds nests on stalks above the water (Shuford, W.D., and Gardali, T., 2008).

Occurrence: The range of the least bittern in California, particularly in the San Joaquin Valley, is decreasing in size due to loss and degradation of freshwater marsh habitat. The Salton Sink and Colorado River Valley are thought to be core population centers for the species and provide a few habitat areas that support the majority of the population. The species is considered fairly common in the Salton Sink area, though increased salinity levels in the area marshes threaten habitat for this population. Other threats include water pollution, human disturbance, and parasites.

As indicated in the 2011 BTR, the least bittern was observed nesting in cattail marsh vegetation in the Westside Main Canal a nearby project according to a 2010 survey on an adjacent solar development site (RECON, 2010). It was concluded that it is unlikely to inhabit the proposed Project site due to lack of suitable freshwater marsh and appropriate vegetation.

Le Conte's Thrasher

Species: The Le Conte's thrasher is a California Species of Special Concern. The species can be found year-round in Imperial County, California.

Habitat: Le Conte's thrasher inhabits open desert wash, desert scrub, alkali desert scrub, and desert succulent shrub habitats in southern California deserts, where it is a year-round resident. Its range in California stretches from southern Mono County to the Mexico border, and can be found in the western and southern San Joaquin Valley as well as in Joshua tree woodlands with scattered shrubs. It is an uncommon to rare species in the area with a breeding season from late January to early June. Le Conte's thrasher forages on the ground and feeds on insects, other terrestrial arthropods, seeds, small lizards, and other small vertebrates.

Occurrence: Le Conte's thrasher was observed during surveys for another nearby project in desert wash vegetation but was not observed during the 2011 BTR. The proposed Project site, which was previously active agricultural land, was deemed unsuitable habitat for the species during the 2011 EIR surveys. The site was cleared and graded during construction of the CSE Facility. The site does not have suitable habitat due to the lack of suitable vegetation and loose, friable soils. Portions of Greeson Wash, located east of the proposed Project site, may provide suitable habitat for the species.

Golden Eagle

Species: The golden eagle is protected by the Bald and Golden Eagle Protection Act and is a fully protected species in California. The species is protected under MBTA and Fish & Game Code sections 3503, 3503.5, and 3513. The species can be found throughout the United States but is a rare resident in San Diego and Imperial counties.

Habitat: Golden eagles build large nests (3 meters across and 1 meter high) on cliffs of all heights and in large trees in open areas. The nests are reused, and alternative nest sites are maintained by the species. Golden eagles prefer rugged, open habitats with canyons and escarpments. The species has been known to forage up to 9 kilometers from the center of its territory, but also

forages near nesting sites. Foraging habitat includes large areas of grassland, desert, and open chaparral or sage scrub. Golden eagles often prey on rabbits, ground squirrels, and prairie dogs.

Occurrence: Suitable habitat for golden eagles is located approximately 10 miles west of the CSE facility in the In-Ko-Pah and Jacumba mountains. El Centinela, a mountain located over 3 miles southwest of the proposed Project site, may also provide suitable nesting habitat. The nearest known population is approximately 10 miles northwest of the CSE project area in the Coyote Mountains. Due to the distance of these populations from the proposed Project site, golden eagles from these mountains are not expected to forage in the Project area.

During the winter surveys of the BTR, a golden eagle was observed near the Mount Signal Drain and adjacent agricultural fields. No previous records of golden eagles were identified in the CSE project area. The proposed Project site is cleared and graded and does not contain suitable nesting habitat for golden eagles. Due to this, golden eagles are not expected to nest within the site. Golden eagles nesting in the Mt. Signal area may use the Project area for foraging activities, though this is likely a rare occurrence.

3.2.6.3 Sensitive Natural Communities

Several natural communities were identified in the Project Area during the survey that are considered sensitive by the CDFW. These natural communities are creosote bush – white bursage scrub, vegetation communities associated with wetland and riparian habitats such as desert wash associated with Greeson wash, and a small amount of mesquite woodland. The vegetation communities in the survey area were mapped using one-inch-equals-400-feet color aerial imagery for the 2011 BTR. The proposed Project site is within land identified as agriculture and does not contain any sensitive natural communities.

3.2.6.4 Jurisdictional Waters

As part of the CSE Facility, a jurisdictional delineation was conducted to determine the extent of ACOE, CDFW, and RWQCB resources within the survey area. According to the 2011 Final Environmental Impact Report (FEIR), the CSE facility area was evaluated for drainage features during field visits performed on September 30, 2010 and November 7, 2010. The private land survey area for potentially jurisdictional waters included the CSE Facility, inclusive of the proposed Project site.

3.2.6.4.1 ACOE Jurisdictional Waters

No ACOE wetland areas have been identified within the private land portions of the survey area, which included the proposed Project. As indicated in the 2011 FEIR, non-wetland waters within the private land portion of the survey area, were primarily associated with the larger irrigation canals and drains, as well

as portions of Greeson Wash. The majority of the features were determined to be man-made features constructed wholly within uplands; these features were used for agricultural irrigation (supply and drainage). These previous non-wetland irrigation canals and drains were removed as part of development of the solar panels associated with the existing CSE facility. The larger, IID-maintained, concrete-lined canals and lateral canals used to convey water to multiple fields convey water for most of the year (Westside Main Canal is located about 800 feet from Project center) and would likely be considered federally jurisdictional. However, these canals occur outside the boundary of the existing CSE facility site on which the Project would be developed.

3.2.6.4.2 CDFW Jurisdictional Waters

Under Section 1600 of the California Fish and Game Code (CDFG) Code, CDFG has jurisdiction over riparian habitats (e.g., southern willow scrub) associated with watercourses. Jurisdictional waters are delineated by the outer edge of riparian vegetation or at the top of the bank of streams or lakes, whichever is wider. CDFG jurisdiction does not include tidal areas or isolated resources. These areas would generally include drains and canals. As mentioned previously, irrigation canals and drains were removed as part of development of the solar panels associated with the existing CSE facility. The larger, IID-maintained, concrete-lined canals and lateral canals used to convey water to multiple fields convey water for most of the year (Westside Main Canal is located about 800 feet from Project center) occur outside the boundary of the existing CSE facility site on which the Project would be developed.

3.2.7 Habitat Connectivity and Wildlife Corridors

Habitat connectivity and wildlife corridors are areas that connect suitable wildlife habitat areas which are fragmented by rugged terrain, different land use/land cover, or human disturbance. Within the survey area, Greeson Wash and other drainage features are important wildlife corridors through an otherwise arid and agricultural habitat. Avian species and other small terrestrial species are able to move freely through the area and through the chain link fencing around the CSE Facility. Larger terrestrial species, however, may be restricted in movement due to the perimeter fencing.

3.2.8 Regulatory Setting

The relevant regulatory framework, as it applies biological resources associated with the Project, is summarized below.

3.2.9 Federal Plans, Policies, Regulations, and Laws

The following sections describe applicable Federal plans, policies, regulations and laws associated with the Project.

3.2.9.1 Endangered Species Act

The Endangered Species Act (ESA) affords legal protection to those species and their habitats determined to meet the specified criteria for listing by the Federal government as either threatened or endangered. The ESA defines a federally endangered species as "any species which is in danger of extinction throughout all or a significant portion of its range." A federally threatened species is defined as a species that "is likely to become endangered within the foreseeable future" (USFWS, 2019).

United States Fish and Wildlife Service (USFWS) enforces the provisions of Section 7 of the ESA that protect federally threated or endangered species from take (16 United States Code [U.S.C.] 1531). "Take" is defined as direct or indirect harm, and the USFWS has interpreted the definition of take also to include significant habitat modification. In accordance with the ESA, the lead agency in coordination with the USFWS must require that any authorized, funded, or implemented Federal action not adversely affect a federally listed threatened or endangered species or its critical habitat. (16 U.S.C. 1536 (a)[3], [4]). If an action may adversely affect a listed species or its critical habitat, the USFWS will provide alternatives that would reduce the level or impact. The biological opinion resulting from formal Section 7 consultation may include an incidental take statement which provides an incidental take authority for the activities evaluated in the biological opinion.

3.2.9.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) was adopted by Congress in 1918 and is administered by the USFWS. The MBTA protects more than 1,000 species of migratory birds, as identified in 50 CFR 10.13. The MBTA protects species of migratory birds and their nests, eggs, young, and parts from possession, sale, purchase, barter, transport, import, export, and take. The MBTA defines "take" as "…to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to pursue, hunt, shoot, wound, kill, trap, capture, or collect" (50 CFR.10.12). Migratory birds are not necessarily federally listed endangered or threatened species under the ESA.

3.2.9.3 Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. 668-668d, 54 Stat. 250 and Amendments) protects bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*), their eggs, and their nests. The BGEPA states "no person would take, possess, sell, purchase, barter, offer for sale, transport, export, or import any bald or golden eagle alive or dead, or any part, nests or eggs, thereof without a valid permit to do so."

3.2.9.4 Federal Water Pollution Control Act (Clean Water Act)

The Clean Water Act (CWA) provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters (33 U.S.C. 1251-1376). Section 404 of the CWA establishes a permit program administered by the U.S. Army Corps of Engineers (USACE) regulating the discharge of dredged or fill material into waters of the U.S. (including wetlands). Implementing regulations by USACE are found at 33 CFR Parts 320-332. The Section 404 (b)(1) Guidelines were developed by the EPA in conjunction with USACE (40 CFR Part 230), allowing the discharge of dredged or fill material for non-water dependent uses into special aquatic sites only if no practicable alternative exists that would have less adverse impacts.

3.2.9.5 California Desert Conservation Area (CDCA)

The California Desert Conservation Area (CDCA) is a region of resource-rich desert lands in portions of Imperial, Riverside, San Bernardino, and Inyo Counties. The CDCA includes approximately 25 million acres, 10 million of which are administered by the BLM, and was designated by Congress in 1976 through the Federal Land Policy and Management Act (FLPMA). The BLM has designed the Yuha Desert as an Area of Critical Environmental Concern (ACEC), which are defined as areas where "special management attention is needed to protect important historical, cultural, and scenic values, or fish and wildlife or other natural resources" (BLM, 2019). The Yuha Desert ACEC Management Plan was prepared to provide additional protection to archeological and wilderness values while also providing for multiple use management. The Yuha Desert ACEC Management Plan allows transmission lines and associated facilities to transverse the area if environmental analysis determines it is environmentally sound to do so.

3.2.10 State Plans, Policies, Regulations, and Laws

The following sections describe applicable state plans, policies, regulations, and laws associated with the Project.

3.2.10.1 California Endangered Species Act

The California Endangered Species Act (CESA) protects State-listed species from activities that could result in direct or indirect take. The California Department of Fish and Wildlife (CDFW) maintains the list of threatened and endangered species covered under CESA. Under California law, "take" means to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill (California Fish and Game Code, Section 86).

3.2.10.2 State of California Fully Protected Species

In the 1960s, the State of California created the classification of 'Fully Protected Species' for certain plants and animals that were identified as rare or facing possible extinction. These species were provided additional protection and may not be taken or possessed at any time. No licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock. Most fully protected species have also been listed as threatened or endangered species under ESA and/or California Endangered Species Act (CESA).

3.2.10.3 California Fish and Game Code 3503

California Fish and Game Code 3505 provides protection to bird nests and eggs. Code 3505 states that "it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto."

3.2.10.4 California Fish and Game Code 3503.5

California Fish and Game Code Section 3503.5, which provides protection to raptors, including their nests and eggs, states it is "unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird" unless authorized.

3.2.10.5 California Fish and Game Code 3513

California Fish and Game Code 3513 states that it is "unlawful to take or possess any migratory nongame bird as designated in the Migratory Bird Treaty Act or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Treaty Act."

3.2.10.6 California Fish and Game Code Section 1600, as amended

California Fish and Game Code Section 1600 provides protection to fish and wildlife resources through the regulation of activities that would divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. Section 1602 of the Fish and Game Code states that an "entity may not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake," unless certain requirements are met. The entity must notify the CDFW before beginning the project. If the CDFW determines that the project may adversely affect existing fish and wildlife resources, a Lake or Streambed Alteration Agreement is required.

3.2.10.7 Native Plant Protection Act

The California Native Plant Protection Act of 1977 (California Fish and Game Code Sections 1900-1913) requires State agencies to carry out programs with the intent to conserve endangered and otherwise rare species of native plants. The act prohibits the taking of listed plants from the wild and requires notification of CDFW at least 10 days in advance of any change in land use (other than changing from one agricultural use to another), which allows CDFW to salvage listed plants that would otherwise be destroyed.

3.2.10.8 Porter-Cologne Water Quality Act, as amended

Under the Porter-Cologne Act, any person proposing to discharge waste into a water of the State must file a report of waste discharge with the appropriate regional board. The act requires RWQCBs to adopt water quality control plans and expanded the authority of the State Water Resource Control Board and the RWQCBs to enforce water quality regulations.

3.2.11 Regional and Local Plans, Policies, Regulations, and Laws

3.2.11.1 Imperial County General Plan

Table 3.2-2 analyzed the consistency of the proposed Project with the applicable policies related to biological resources in the Imperial County General Plan pursuant to CEQA Guidelines Section 15125(d). The Imperial County Board of Supervisors determines consistency with the General Plan.

Table 3.2-2: Imperial County General Plan Consistency Analysis

General Plan Policies	Consistency with General Plan	Analysis
Open Space Conservation Policy: The County shall participate in conducting detailed investigations into the significance, location, extent, and condition of natural resources in the County. Program: Notify any agency responsible for protecting plant and wildlife before approving a project which would impact a rare, sensitive, or unique plant or wildlife habitat.	Consistent	A biological technical study was prepared for the 2011 EIR/EA which included the proposed Project site. The BTR and Addendum (Heritage, 2011a and 2011b) included several different surveys and studies that were performed in the vicinity of the CSE facility to identify biological resources that are present and could be affected by the CSE facility and associated Gen-tie Line. Applicable agencies responsible for protecting plants and wildlife will be notified of this SEIR and provided an opportunity to comment prior to consideration of any approvals by Imperial County.

General Plan Policies	Consistency with General Plan	Analysis
Land Use Element Policy: The General Plan covers the unincorporated area of the County and is not site specific, however, a majority of the privately owned land is located in the area identified by the General Plan as "Agriculture," which is also classified as important burrowing owl habitat, typically in the berms and banks of agricultural fields. Program: Prior to approval of development of existing agricultural land either in form of one parcel or a numerous adjoining parcels equally a size of 10 acres or more shall prepare a Biological survey and mitigate the potential impacts. The survey must be prepared in accordance with the United States Fish and Wildlife and California Department of Fish and Game regulations, or as amended.	Consistent	A biological technical study was prepared for the 2011 EIR/EA which included the proposed Project site. The BTR and Addendum (Heritage, 2011a and 2011b) included several different surveys and studies that were performed in the vicinity of the CSE facility to identify biological resources that are present and could be affected by the CSE facility and associated Gen-tie Line. The proposed Project site was previously farmed. The site was cleared and graded during construction of the CSE Facility. The site is completely within the CSE facility footprint and is no longer farmed.

3.2.12 Environmental Consequences

The following sections provide thresholds of significance, analysis methodology, and issues scoped out of this SEIR.

3.2.13 Thresholds of Significance

The Project would result in a significant impact related to biological resources if it were to:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means
d) Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites
e) Conflict with any local policies or ordinance protecting biological resource, such as a tree preservation policy or ordinance
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan

3.2.14 Analysis Methodology

The following sections describe the analysis methodology of the 2011 FEIR, which was used for this SEIR along with an evaluation of changes to the biological resources at the CSE facility since the publication of the 2011 FEIR.

3.2.14.1 Field Surveys

The field surveys completed for the 2011 FEIR encompassed the CSE Facility, the Gen-tie route Right of Way (ROW), and buffer areas that varied for several surveys based on the target species. The total survey area was approximately 5,418 acres. Approximately 4,214 acres of the survey area was on private lands. The remaining 1,205 acres were on lands managed by the BLM.

3.2.14.1.1 General Biological Survey

As described in the 2011 FEIR, habitat assessments and general biological surveys of the proposed CSE facility and associated linear facilities were conducted several times between February 26, 2009 and November 14, 2010. The field surveys documented the botanical resources; identified potentially jurisdiction state and federal waters and wetlands; and documented suitable threatened, endangered, and sensitive wildlife species habitats in the survey area. Field surveys were conducted by hiking through public access areas as well as surveying other areas from public roads. Inaccessible areas were assessed using high quality aerial photography. These inaccessible areas were examined with binoculars and vegetation communities were interpreted and mapped on the aerials.

3.2.14.1.2 Focused Rare Plant Survey

Initial spring rare plant surveys were performed from March 17-20, 2009, in accordance with Survey Protocols Required for NEPA/ESA Compliance for BLM Special Status Plant Species (BLM 2009a). As described in the 2011 FEIR, eight transects were surveyed, on foot, within a 1,000-foot corridor, approximately 125 feet apart. Native vegetation on a private parcel at the intersection of State Route 98 and the Westside Main Canal was assessed due to its potential to support rare plants. The Westside Main Canal and adjacent drains was also surveyed. Agricultural fields were not surveyed for rare plants, as those areas were determined to have no potential to support sensitive rare plant species.

In the 2011 FEIR, a database search using California Natural Diversity Database (CNDDB) RareFind indicated that five rare plant species may be within the CSE project vicinity: brown turbans (Malperia tenuis) a California Native Plant Society (CNPS) List 2.3 species, hairy stickleaf (Mentzelia hirsutissima) a CNPS List 2.3 species, fairy duster (Calliandra eriophylla) a CNPS List 2.3 species, rock nettle (Eucnide rupestris) a CNPS List 2.2 species and Thurber's pilostyles (Pilostyles thurberi) a CNPS List 4.3 species. The BTR survey was conducted during the flowering period for these species, in some instances the start of the blooming season, with the exception of the Thurber's pilostyles. The survey also included other sensitive species that may have occurred within the survey area. The BLM El Centro Field Office requested that the survey use a more inclusive list of rare plant species known to occur in the greater Imperial Valley because few botanical surveys had been conducted in the area. Additional rare plant surveys were conducted in between late October to early November due to rainfall totals in late September to early October in 2010. Phenology of common species at the time of the survey was also used to verify that the survey was conducted within the period when rare plants would also be observable.

3.2.14.1.3 Focused Burrowing Owl Surveys

Burrowing owl surveys were conducted in May 2009 and March 2011 by qualified biologists using California Burrowing Owl Consortium (CBOC) guidelines (CBOC 1993). A Phase I habitat assessment determined the survey area contained suitable burrowing owl habitat. The Phase II survey investigated the survey area for burrows. CBOC protocol suggests a 150-meter buffer around the project area. As such, the buffer around the CSE facility survey area was at least 150 meters and up to 0.5-mile wide in some places. The Phase II survey included pedestrian and/or vehicular survey for the CSE facility footprint. Survey transects focused on suitable habitat near canals, laterals, and drains. Potential burrowing owl burrows and/or clusters of burrows were recorded using GPS and photos were obtained. All owl observations were recorded as well.

A third survey (Phase III) was completed during breeding season, which peaks between April and July. Site visits were conducted each month between May and August in 2009. Observations of individuals, occupied burrows, and potentially active burrows were recorded. Owl pairs and juveniles were also recorded along with behaviors such as courtship and copulation. Another site visit took place in March 2011. The surveys took place in the morning and evening, beginning a half hour before sunrise to two hours after sunrise. Evening surveys began two hours before sunset and concluded an hour after sunset. After the initial survey, subsequent observations were conducted using scopes or binoculars from fixed points with visual coverage of the area. If possible, surveyors remained in vehicles to minimize disturbance to the owls during the subsequent surveys.

3.2.14.1.4 Avian Use Surveys

Avian use surveys in support of the 2011 FEIR were performed by qualified biologists with experience identifying North American birds by sight and sound, according to BLM's Solar Facility Point Count Protocol (BLM 2009b). Four transects were placed through the CSE project area and point count stations were identified along each transect. The transects were 1,750 meters in length with a point count station every 250 meters. Transect locations were designed to provide spatial coverage of the entire CSE project area and to investigate all habitat types present in the CSE project area and focused on habitat types most likely to contain a high abundance and/or diversity of birds. During each survey, 32-point count stations were sampled. Four survey events took place in the winter survey season between December 2010 and January 2011, and four additional survey events took place in the spring season (March through April 2011).

During each 10-minute sampling period, biologists recorded all birds seen or heard within a 100-meter radius at each point count station. Point counts were generally performed within four hours of sunrise and did not take place in inclement weather (e.g. rain heavier than light or intermittent, winds greater than 15 miles per hour. Pairs or groups of birds were recorded as single detections to avoid issues resulting from statistical dependence. Individual birds were recorded as well. Birds seen or heard outside the 100-meter radius or birds seen or heard along transects but not at point count stations were not included in analyses of avian abundance but were recorded as incidental observations and added to the overall project species list.

3.2.14.1.5 Mountain Plover Surveys

Mountain plover surveys for the 2011 EIR were performed by qualified biologists with experience identifying North American birds by sight and sound, including Mountain Plover detection and identification, according to the USFWS Interim Survey Guidance for Wintering Mountain Plover

(*Charadrius montanus*) in the Imperial Valley (USFWS, 2011). Three surveys took place between December 1 and February 28. Surveys were conducted between 8 am and 4 pm and were not conducted during inclement weather or other unfavorable conditions (e.g. excessive or abnormal heat, wind greater than 10 miles per hour, rain, or fog.) Each biologist surveyed no more than 600 acres per day.

Sixteen fixed observation points were established after suitable habitat was identified by assessing vegetation height in the CSE project area. Biologists used scopes and binoculars at each observation point to scan each field for a minimum of 30 minutes per field per observer during each field visit.

3.2.14.1.6 Jurisdictional Delineation

Potential jurisdictional status of drainage features in the CSE project area was assessed in 2010. Field visits were performed in September and November, and additional information was obtained using GIS and aerial imagery. Initial determinations were based on applicable regulations and associated guidance documents as well as on personal communications with Lanika Cervantes, Project Manager in the Regulatory Division of the ACOE and Magdalena Rodriguez, Wildlife Biologist, from the CDFW. The 2011 EIR provided estimated acreages of the potential impact to jurisdictional drainage features due to the CSE project.

The Project site has been disturbed in association with development of the existing CSE facility and does not contain any waters that are considered potentially jurisdictional. Therefore, since there are no potentially jurisdictional waters on the Project site, this issue was not evaluated in this SEIR.

3.2.14.2 Literature Review

In the 2011 EIR, determination of the potential occurrence for listed, sensitive, or noteworthy species is based upon known ranges and habitat preferences for the species (State of California 2009 and 2010a; CNPS 2001; Reiser 2001), species occurrence records from the California Natural Diversity Database (CNDDB; State of California 2010b), the BLM Special Status plant and wildlife species website (BLM, 2010), and species occurrence records from other sites in the vicinity of the survey area. The 2011 EIR also referenced studies done for the Imperial Solar Energy Center West, (RECON 2010a), and the Draft Environmental Impact Statement for the SES Solar Two (URS 2008).

This SEIR referenced the same sources as the 2011 EIR. An updated list of federally protected species was obtained from USFWS (USFWS, 2019). Also, an updated list of species occurrence records was obtained from the CNDDB in May 2019.

3.2.15 Issues Scoped Out

CEQA Appendix G Environmental Checklist Form criterion "b" was scoped out because the Project site has been disturbed in association with development of the existing CSE facility and does not contain riparian habitat or special status communities. Therefore, since the Project site does not contain riparian habitat or other sensitive natural communities no impacts to riparian habitat or special species communities will occur in association with construction, operation or decommissioning of the Project.

CEQA Appendix G Environmental Checklist Form criterion "c" was scoped out because the Project site has been disturbed in association with development of the existing CSE facility and does not contain any waters that are considered potentially jurisdictional. Therefore, since the Project site does not contain any potentially jurisdictional waters, no impacts to federally protected wetlands will occur in association with construction, operation or decommissioning of the Project. This issue was not evaluated in this SEIR.

Lastly, CEQA Appendix G Environmental Checklist Form criterion "f" was scoped out because implementation of the Project is not anticipated to conflict with provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan during construction, operation or decommissioning. The proposed Project site is located within the boundary of the existing CSE Facility; this location is vacant and has been previously cleared for development. Therefore, no impact is expected.

3.2.16 Project Impacts

The following subsections evaluate the significance of various potential Project impacts with respect to the criteria outlined above.

Impact 3.2-1: Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Construction, Operational, and Decommissioning Impacts

Though the proposed Project site has been previously scraped and leveled, impacts on candidate, sensitive, or special status species are potentially significant unless mitigation is incorporated in association with Project construction, operation or decommissioning. A number of general measures designed to reduce potential indirect impact to resources in the Project area shall be implemented after construction as standard operation and maintenance protocols. Similarly, mitigation measures for specific sensitive biological resources shall be implemented to reduce the

potential indirect impacts of Project implementation. These mitigation measures follow those recommended in Section 4.12 of the 2011 FEIR for development and operation of the existing CSE facility and are identified as Mitigation Measures BIO-1 through BIO-4 in this SEIR. With the implementation of these measures, impacts on candidate, sensitive, or special status species are expected to be less than significant.

Plants

No special status plant species are expected to occur on the proposed Project site. The site is no longer irrigated, due to the absence of agricultural activities. Construction, operation, and decommissioning of the Project may disturb soils and could result in the introduction or increased density of non-native invasive plant species. Mitigation Measure BIO-1 would bring the propagation of noxious, invasive and non-native weeds to less than significant levels.

Birds and Raptors

During construction, operation, and decommissioning of the Project, there may be increased noise and light which could impact candidate, sensitive, or special status species that forage in the area. Noise from heavy equipment may cause short-term avoidance of these species from foraging habitat near construction and decommissioning activities on vacant lands to the west of the proposed Project site. There is also a minor potential risk to avian species of collisions within portions of the proposed Project and its associated equipment.

All work on the proposed Project site will be conducted during daylight hours. General operational activities that may be conducted within the Project site, which include equipment inspection and/or repairs and weed abatement activities. It is anticipated that these operational activities will occur at a similar level of intensity as the previous agricultural operations before construction of the CSE facility and are not expected to affect the overall behavioral patterns of these species if present near the Project. Any noise generated during operations will be minimal, and the level of human disturbance is not expected to increase significantly above the operational activities that are currently taking place and will continue to take place as part of the existing CSE Facility. Although noise levels are anticipated to be less than significant, the implementation of MM BIO-2 would prevent direct and indirect noise impact to nesting raptors.

To reduce the potential indirect impact to migratory birds, bats and raptors, an Avian and Bat Protection Plan (ABPP) was prepared for the overall CSE facility (on which the proposed Project will be developed) following the USFWS's guidelines and implemented by the Project proponent

at the CSE Facility. This ABPP outlined conservation measures for construction and operations and maintenance activities that might reduce potential impacts to bird populations and was developed by the applicant in conjunction with and input from the USFWS. The applicable conservation measures for construction, operations, and maintenance activities in the ABPP are indicated in Mitigation Measure BIO-3.

No large drains would be removed to accommodate construction of the Project, nor will the Project include earthen detention basins to manage stormwater flows. No potential foraging or wintering habitat will be removed during construction or grading of the Project. The proposed Project has the potential to impact burrowing owls, which are a California Species of Special Concern. The species is also protected under MBTA and California Fish & Game Code § 3503, 3503.5, and 3513. Previous surveys identified active burrows in the survey area. The closest burrow to the proposed Project site was located near the Westside Main Canal. Impacts to burrowing owl foraging habitat within 100 meters (approximately 300 feet) of an active burrow is considered adverse and would require compensation, according to the CDFG Staff Report on Burrowing Owl Mitigation (1995). Pre-construction burrowing owl surveys will be conducted along these features within 14-days prior to initiation of initial grading and clearing in accordance with the CDFG Burrowing Owl Survey Protocol and Mitigation Guidelines. The surveys will ensure that any owls that may be present are protected from Project traffic and construction activities. As such, impacts would be less than significant with implementation of Mitigation Measure BIO-4.

Mammals

Development of the proposed Project would not further reduce any suitable foraging habitat for bat species. With the combined areas of suitable foraging habitat in the immediate vicinity of the existing CSE facility and agricultural lands within the overall the Imperial Valley, implementation the proposed Project would result in less than significant impacts bat species during construction, operation and decommissioning.

Reptiles

As previously described, habitat for the FTHL includes sand dunes, sheets, hummocks, and gravelly washes. FTHL are believed to be most abundant in creosote bush scrub habitat but also inhabit desert scrub, desert wash, succulent shrub, alkali scrub, and sparsely vegetated sandy flats. The existing site proposed for the Project consist of compacted soils that have previously been disturbed through former agricultural activities and the recent development of the existing CSE

Facility. The proposed Project site does not provide habitat for the FTHL; as such, development, operation and decommissioning of the proposed Project is considered to have less than significant impacts to this species.

Mitigation Measures

Mitigation Measures included in the 2011 EIR are applicable to this SEIR. The following Mitigation Measures apply specifically to the proposed Project.

MM BIO-1: Noxious, Invasive and Non-Native Weeds

To minimize the introduction and spread of weed species the Project shall continue to implement relevant elements of the previously approved CSE facility Weed Management Plan, including a discussion of specific weeds identified on site that will be targeted for eradication or control as well as a variety of measures that will be undertaken during construction and operations and maintenance activities to prevent the introduction and spread of new weed species as a result of the project.

MM BIO-2: Nesting Raptors

Raptors and active raptor nests are protected under California Fish and Game Code 3503.5, 3503, 3513. To prevent direct and indirect noise impact to nesting raptors such as red-tailed hawk, the following measures should be implemented:

- To the extent practicable, grading and clearing within the proposed Project site should take place outside the raptors' breeding season of February 1 to July 15.

- If construction occurs between February 1 and July 15, an approved biologist shall conduct a pre-construction clearance survey for nesting raptors in suitable nesting habitat (e.g., tall trees or transmission towers) that occurs within 500 feet of the Project site. If any active raptor nest is located, the nest area will be flagged, and a 500-foot buffer zone delineated, flagged, or otherwise marked. No work activity may occur within this buffer area, until an approved biologist determines that the fledglings are independent of the nest.

MM BIO-3: Migratory Birds and Other Sensitive Non-Migratory Bird Species

Construction Conservation Measures

- Apply APLIC design guidelines for overhead utilities (APLIC 2006) by incorporating recommended or other methods that enhance the visibility of the lines to avian species.
- All overhead electric lines shall be designed to be raptor-safe in accordance with the Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 2006 (Avian Power Line Interaction Committee [APLIC] 2006).

Operations and Maintenance Measures

- Preparation of a Raven Control Plan that avoids introducing water and food resources in the Project site.
- Incorporate APLIC guidelines for overhead utilities as appropriate to minimize avian collisions with Gen-tie Line facilities (APLIC 2006).
- Minimize noise.
- Minimize use of outdoor lighting.
- Implement measures of the CSE facility post—construction avian monitoring plan including the Wildlife Mortality Reporting Program.

MM BIO-4: Burrowing Owl

Burrowing owls are known to occur in and along the active agricultural fields adjacent to the existing CSE facility site. The following measures will avoid, minimize, or mitigate potential impact to burrowing owl during construction activities:

1. To the extent practicable, grading and clearing within the project site should take place between September 1 and January 31 to avoid impacts to any breeding burrowing owls. Occupied burrows on the Project site shall not be removed during the nesting season (February 1 through August 31) unless a qualified biologist verifies through non-invasive methods that either (a) the birds have not begun egg-laying and incubation; or (b) that juveniles from the occupied burrows are foraging independently and are capable of independent survival. If grading and clearing within the project site is to begin during the breeding season (February 1 through August 31), the following measures (#2 through #4 below) will be implemented.

2. Within 30-days prior to initiation of grading and clearing, pre-construction clearance surveys for this species shall be conducted by qualified and agency-approved biologists to determine the presence or absence of this species within the grading area. The proposed grading areas shall be clearly demarcated in the field or via GPS by the project engineers and Designated Biologist prior to the commencement of the pre-construction clearance survey. The surveys shall follow the protocols provided in the CSE Burrowing Owl Survey Protocol and Mitigation Guidelines.
3. When removal of occupied burrows is unavoidable, the following mitigation measures shall be implemented outside of the breeding season. Passive relocation methods are to be used by the biological monitors to move the owls out of the impact zone. This includes covering or excavating all burrows and installing one-way doors into occupied burrows. This will allow any animals inside to leave the burrow but will exclude any animals from re-entering the burrow. A period of at least one week is required after the relocation effort to allow the birds to leave the impacted area before excavation of the burrow can begin. The burrows should then be excavated and filled in to prevent their reuse. The removal of active burrows on-site requires construction of new burrows or the enhancement of existing unsuitable burrows (i.e., enlargement or clearing of debris) at a mitigation ratio of 2:1 at least 50 meters from the impacted area and must be constructed as part of the above-described relocation efforts.
4. As the project construction schedule and details are finalized, an approved biologist shall verify that the Burrowing Owl (BUOW) Mitigation and Monitoring Plan will be updated and detail the approved, site-specific methodology proposed to minimize and mitigate impacts to this species. Passive relocation, destruction of burrows, and construction of artificial burrows can only be completed upon prior approval by and in cooperation with the CDFW.
5. These measures shall be implemented, if passive relocation of some burrows are determined to be an unfavorable alternative for BUOW and occupied burrows are near construction activities. During the BUOW nesting season (February 1 to August 31), the qualified biologist shall establish and mark a 250-foot non-disturbance buffer circle around the burrow. The buffer shall be

staked and roped-off prior to initiating any construction activity. No activity shall take place within the avoidance buffer area to ensure that disturbance to nesting birds does not occur. Any disturbance to nesting BUOW would require prior consultation, approval and mitigation in accordance with California Fish and Game requirements.

6. Disturbing nesting BUOW that may cause changes of behavior, plugging the burrow entrance or causing the burrow to collapse could effectively destroy the nest, and as such, require a State permit.
7. If an active, non-breeding BUOW burrow is detected during preconstruction surveys, prior to onsite construction related activities, the qualified biologist shall establish and flag an avoidance buffer circle around the burrow area at a 160-foot radius.

Compensation

- On-site or off-site mitigation will occur as determined in the compensatory mitigation plan developed for the CSE facility and approved 2012 Burrowing Owl Mitigation Plan (Appendix C).

Significance After Mitigation

Less than significant.

Impact 3.2-2: Would the project interfere substantially with the movement of any resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Construction, Operational, and Decommissioning Impacts

The Project is proposed within the boundaries of the existing CSE Facility. This area is currently surrounded a chain link perimeter fence, allowing small mammals and reptiles to move freely through the site. Although medium- and large- sized mammals will not be able to move through the CSE Facility, it should not inhibit their movement through the Yuha Basin. No change in wildlife movement will occur in association with construction, operation or decommissioning of the proposed Project. Therefore, this impact is expected to be less than significant.

Mitigation Measures

None required.

Significance After Mitigation

Not applicable.

Impact 3.2-3: Would the project conflict with any local policies or ordinance protecting biological resource, such as a tree preservation policy or ordinance?

Construction, Operational, and Decommissioning Impacts

Implementation of the Project is not anticipated to conflict with any local policies or ordinances protecting biological resources during construction, operation or decommissioning. The Imperial County General Plan Open Space Conservation Policy requires detailed investigations to be conducted to determine the significance, location, extent, and condition of natural resources in the County. If any rare, sensitive, or unique plant or wildlife habitat will be impacted by a project, the County must notify the agency responsible for protecting plant and wildlife before approving the project. Consistent with this policy, appropriate studies have been prepared for the existing CSE facility that includes the site where the proposed Project will be located. Therefore, this impact is expected to be less than significant.

Mitigation Measures

None required.

Significance After Mitigation

Not applicable.