August 11, 2015

Steve Wragg
9755 Clairemont Mesa Boulevard, Suite 100
San Diego CA, 92124-1324

Project Name: NLP Valley Center LLC Solar project
Project Number: PDS2013-MUP13-019
Report Version Number: 4.0
RE: Biological Resource Letter Report for (APNs) 188-120-09 and -10 Prepared for the County of San Diego.

Dear Mr. Wragg,

This biological resource letter report documents the results of a records search and site visits conducted by ECORP Consulting, Inc. (ECORP) for (APNs) 188-120-09 and -10 located in the community of Valley Center, County of San Diego, California. The site is located in the community of Valley Center, California in north-central San Diego County. This letter report has been prepared for the County of San Diego in accordance with the County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements.

Project Description

The proposed NLP Valley Center Solar LLC project ("Project") site is located in the community of Valley Center, California in north-central San Diego County. The subject site is located at 29471 Cole Grade Road and is bordered by Cole Grade Road to the west. The property is comprised of two separate parcels which include County Assessor Parcel Numbers (APNs) 188-120-09 and -10, totaling approximately 66 acres.

The Project requires approval from the County of San Diego for a Major Use Permit (MUP) for the construction, operation, and maintenance of an unmanned PV Solar facilities for the long-term generation of solar-generated energy. The proposed approximate 26-acre fenced photovoltaic (PV) solar facility will encompass a portion of the approximate 66-acre property to achieve the intended megawatt (MW) output. The Project design will consist of PV solar panels mounted on a collection of single-axis tracking (SAT) systems supported by machine-driven metal "H" piles or round pipe columns. The single axis system proposes solar panels aligned in rows that rotate to face east in the morning and west in the afternoon hours, tracking the sun about a north/south axis to maximize solar absorption. The ultimate arrangement/number of PV solar panels, racking, inverter pads, electrical equipment, structures, fencing, and internal access driveways are shown on the MUP Plot Plan to illustrate the general configuration of the proposed solar collection system;. the Project proposes all weather paving internal access road. The point of interconnection (POI) for transmission purposes will occur at an existing utility pole within the Cole Grade Road right-of-way (ROW) adjacent to the Project boundary. Project access to the site will be from Cole Grade Road. No offsite roadway or gen-tie improvements are required.

The subject property currently supports fallowed agricultural lands (citrus orchard). Many of the citrus trees have previously been removed from the property, and the land is generally devoid of vegetation or has minor cover of ruderal species. The site is generally flat, and onsite elevations range from approximately 1,465 feet above mean sea level (amsl) in the southwestern portion of the site to 1,510 feet amsl in the northeastern portion of the site. Several small structures and infrastructure supporting the former agricultural uses (e.g. house and storage sheds, etc.) are located east of the proposed PV facility on the 66- acre property and will remain. Access to these structures is provided through Via Valencia.

Background Research and Surveys

ECORP conducted a records search of public databases, such as the California Natural Diversity Database. A soils analysis search was conducted using NRCS soil survey data (http://websoilsurvey.nrcs.usda.gov). Four soil series occur within the the Project area, two of which (Bonsall and Placentia) are associated with vernal pool occurence in the region. Bonsall soil series (BmC) is a heavy clay loam. Placentia soil series (PeC) is a sandy clay soil (Figure 3).

Historic aerial images were also reviewed using Google Earth and other online resources (www.historicaerials.com). The site has historically been a citrus grove, and there were no indications of depressions or areas where ponding would occur, other than in the active channel of the onsite drained features.

Site visits were conducted on the dates of: 12/12/12, 8/23/13, 2/4/14, and 6/8/15. Environmental conditions were conducive for performing the wildlife and plant surveys. The site was surveyed on foot by biologists familiar with the biological resources located in the regional vicinity of the Property. Vegetation mapping was conducted using aerial imagery and ground-truthing during field surveys in accordance with County Guidelines (County of San Diego 2010). Plant and wildlife species observed during the surveys were recorded. Representative photographs of the Property were taken and binoculars were used to aid in bird identifications during the surveys.

The first visit on December 12, 2012 by Margaret Bornyasz was a field reconnaissance to evaluate the conditions of APN #188-120-10.

During the second visit on August 23, 2013, Margaret Bornyasz characterized the northern parcel, APN #188-120-09, that was added to the study area.

The purpose of the third visit on February 4, 2014 by biologists Wendy Turner, Brian Zitt, and Margaret Bornyasz, was to conduct a jurisdictional delineation and an arroyo toad habitat assessment, and to field-map boundaries for oak woodlands and sensitive riparian habitats.

The June 8, 2015 site visit by ECORP biologists Margaret Bornyasz and Greg Hampton was to re-examine the biological resources present on the Property, to determine the potential presence for sensitive biological resources, confirm site conditions as previously reported, and to focus on resources within the revised development area.

Regional Context

There are three drainage features on the Property, Drainage A which runs north to south in the western portion of the project area and two tributaries of Drainage B which runs northeast to southwest through the site. These features are within the jurisdiction of and regulated by the U.S. Army Corps of Engineers (USACE), California Department of Fish and Wildlife (CDFW), and Regional Water Quality Control Board

(RWQCB). The drainages continue southwest of Cole Grade Road through agricultural (citrus grove) lands within the watershed of the San Luis Rey River.

The Property is located within the study area for the North County Multiple Species Conservation Program. Under this program, a Multiple Species Conservation Plan (MSCP) is being developed. The MSCP will be a regional plan that, among other things, preserves a network of open space and connecting corridors to establish a viable preserve system. The MSCP will accomplish this through a system of hardline conservation areas, such as regional parks, and "soft-line" conservation areas that are being planned. Several plant and animal species are being considered for inclusion within the MSCP for this part of the County. If these species are within the plan as covered species, then impacts to the species would not require mitigation beyond conformance with the plan and its guidelines. The Project site is located outside of draft MSCP hardline conservation areas and any pre-approved mitigation areas (PAMA) under the draft North County MSCP. When the draft North County MSCP is approved, areas within a PAMA have the potential to contribute to the overall preserve system.

The Property is not located adjacent to any existing preserve areas. It is surrounded by agricultural lands, undeveloped areas, and other private holdings.

Habitats/Vegetation Communities

The Property encompasses upland areas and riparian habitat. The upland areas are dominated by orchard (consisting of active citrus grove and fallow lands), ruderal vegetation, and developed areas. The riparian area supports coast live oak woodland, mule fat scrub, and disturbed southern riparian scrub habitats.

The Property has been used for agricultural purposes, and the coast live oak woodland, coastal sage scrub, and riparian habitats on site have been disturbed by agricultural activities, nonnative species, vehicular access, dams, erosion, and other human activities. Representative photographs of the upland areas and riparian habitat are included within Attachment I. Vegetation communities are described in detail below and are depicted in Figure 4.

Coast Live Oak Woodland (Holland Code 71160)

Coast live oak woodland typically occurs on stream banks, alluvial terraces, slopes, and flats, where soils are deep, sandy, or loamy with high organic matter at elevations between 0 – 1200 meters (Sawyer, Keeler-Wolf, and Evens 2009). On the Project site, coast live oak woodland occurs primarily in the eastern and central portions of the Project area, near the banks of the drainages and within swales. Coast live oak (*Quercus agrifolia*) is the dominant tree species in this association, and western sycamore (*Platanus racemosa*) is subdominant, while occasional mule fat (*Baccharis salicifolia*) occurs along drainages. Nonnative species also present in the canopy are Washington fan palm (*Washingtonia robusta*), Peruvian pepper tree (*Schinus molle*), and tamarisk (*Tamarix* sp.). In general, the shrub layer is poorly developed or nonexistent. Near the drainages, there are small patches of tree tobacco (*Nicotiana glauca*) and iceplant (*Carpobrotus* sp.); both plant species are nonnatives and considered invasive. The herbaceous layer ranges from a moderate to sparse cover of non-native herbaceous species or leaf litter. The most mature stands of coast live oak woodland occur in the eastern portion of the site, on the banks of the drainages that traverse the agricultural areas. Coast live oak woodland is considered to be sensitive by California Department of Fish and Wildlife and the County of San Diego and is mitigated under a standard mitigation ratio of 3:1.

Mule Fat Scrub (Holland Code 63110)

This vegetation type is a riparian habitat dominated by mule fat *(Baccharis salicifolia*) and is common in both seasonally and intermittently flooded habitats along riparian corridors. Riparian habitat areas are

composed of hydrophytic species along a stream course, swale, or other water feature. These types of plant communities are important for local wildlife as movement corridors, sources of water, and as habitat areas. Understory vegetation on site is sparse and contains very little understory vegetation. Riparian habitats are considered to be sensitive by California Department of Fish and Wildlife and the County of San Diego and are mitigated under a standard mitigation ratio of 3:1.

Disturbed Southern Riparian Scrub (Holland Code 63300)

Southern riparian scrub is a riparian habitat that can be dominated by a variety of riparian plant species, typically including mule fat and various species of willows (*Salix* spp.), but also containing more mature woodland species. Disturbed southern riparian scrub communities contain an abundance of nonnative plant species or have been adversely impacted by human activity. The disturbed southern riparian scrub that occurs on site consists of predominantly of mule fat, willows, and tamarisk (Tamarix sp.) was present within the shrub canopy layer. Riparian habitats are considered to be sensitive by California Department of Fish and Wildlife and the County of San Diego and are mitigated under a standard mitigation ratio of 3:1.

Disturbed Coastal Sage Scrub (Holland Code 32040)

Coastal sage scrub is a low scrubland habitat that is comprised of primarily soft-woody subshrubs approximately 1 meter high and can be dominated by a variety of plant species typically including but not limited to California Sagebrush and California Buckwheat. The chaparral habitat that occurs onsite is dominated by California Buckwheat (*Eriogonum fasciculatum*). Coastal Sage Scrub is considered sensitive by the County of San Diego and according to county guidelines; impacts to this habitat are mitigated under standard mitigation ratios of 1:1 to 3:1.

Southern Mixed Chaparral (Holland Code 37120)

Southern mixed chaparral is a shrub habitat that can be dominated by a variety of broad-leaved sclerophyll shrub species. The chaparral habitat that occurs onsite includes chamise (*Adenostoma fasciculatum*) and laurel sumac (*Malosma laurina*) as dominants. Southern mixed chaparral is considered sensitive by the County of San Diego. According to the County of San Diego guidelines, impacts to this habitat are mitigated under a standard mitigation ratio of 0.5:1.

Orchard (Holland Code 18100)

Orchard is a community of non-native planted trees that are harvested commercially for agricultural purposes. The orchard areas dominate the majority of the Property land cover, and consist of a mixture of fallow and active orchard. The active grove is a small orchard or stand of citrus trees.

Fallow orchard, that has been plowed and left unseeded for a season or more, occurs on the southeastern portion of the project area, east of the private road, and south of the active citrus grove and coast live oak woodland area. The fallow land used to be cultivated for citrus production but has not been actively tended in the past year and is being cleared. Individual coast live oak trees and one Engelmann oak are scattered in the orchard area.

Disturbed Habitat (Holland Code 11300)

Disturbed habitat consists of areas of high disturbance dominated by invasive nonnative forbs (herbaceous, non-grass species) that are adapted to a regime of frequent disturbance. Areas that have been and are used as active staging areas for agricultural operations, residential areas and structures, and areas that were dominated by ornamentals or ice plant are included. This vegetation/habitat community is not considered to be sensitive either by the County or state or federal agencies.

Developed (Holland Code 12000)

Developed areas do not constitute a vegetation classification, but rather a land cover type. Areas mapped as developed are largely devoid of vegetation due to human development or disturbance. Roads, structures, water tanks, and concrete dump sites were mapped as developed. This vegetation/habitat community is not considered to be sensitive by state or federal agencies.

This vegetation/habitat community is not considered to be sensitive by either the County or by state or federal agencies.

Special-Status Species

No focused special-status plant or wildlife surveys were undertaken for the Property. Among the flora and fauna observed during the field reconnaissance surveys conducted by ECORP included those that are typical of species occurring within the Valley Center region within and adjacent to citrus groves. Plant species observed during the survey included citrus trees, ruderal plant species, nonnative grasses, coast live oaks, and some riparian plant species. Wildlife observed included common raven (*Corvus corax*), red-shouldered hawk (*Buteo lineatus*), northern mockingbird (*Mimus polyglottos*), house finch (*Haemorhous mexicanus*), greater roadrunner (*Geococcyx californianus*), California ground squirrel (*Otospermophilus beecheyi*), and turkey vulture (*Cathartes aura*). Two of these wildlife species are considered sensitive within the County of San Diego: red-shouldered hawk and turkey vulture. These are described below under sensitive animals. No vernal pools or seasonal depressions were observed on the Property and so no fairy shrimp or vernal pool species are expected. There were no water features and thus no fish species are expected. Amphibian and reptile species expected to occur are those that can thrive amid disturbance, such as the western fence lizard (*Sceloporus occidentalis*) and pacific treefrog (*Psuedacris regilla*).

Sensitive Plants

A literature search using the California Department of Fish and Wildlife's (CDFW) *California Natural Diversity Database* (CNDDB) and the California Native Plant Society's Electronic Inventory (CNPSEI) was conducted to determine the special-status species that have been documented within a five-mile radius of the proposed Project Site. The sensitive species reported in these databases for the area were then assessed for potential to occur within the site. Several additional sensitive plant species known to occur within the County were evaluated for their potential to occur on the Property and it was determined that all additional species evaluated were unlikey to occur within the Property (Attachment II).

A total of four special-status plant species appeared in the CNDDB and CNPSEI record search (Attachment II). The special-status plant species include rainbow manzanita (*Arctostaphylos rainbowensis*), Orcutt's brodiaea (*Brodiaea orcuttii*), summer holly (*Comarostaphylis diversifolia*), and Robinson pepper-grass (*Lepidium virginicum* var. *robinsonii*). Both rainbow manzanita and summer holly are perennial shrub species that would have been observed, if present. Orcutt's brodiaea typically occurs in vernally moist grasslands, mima mound topography, and the periphery of vernal pools. Orcutt's brodiaea will occasionally occupy streamside embankments, but due to the disturbed condition of the site and lack of clay soils it is unlikely that this species is present. Robinson pepper-grass is an annual herb that grows in openings in chaparral and sage scrub in the foothill elevations, but due to the fragmentation, distrubance, and lack of typical coastal sage scrub and chaparral stands it is unlikely that this species is present.

Sensitive Animals

A literature search using the California Department of Fish and Wildlife's (CDFW) *California Natural*

Diversity Database (CNDDB) was conducted to determine the special-status species that have been documented within a five-mile radius of the Property. The nine sensitive species with occurrence records in the area were assessed for potential to occur within the Project area (Attachment III). Of the nine species from the CNDDB search that were evaluated, it was determined that four could potentially occur on the Property. The sensitive wildlife species analyzed for their potential to occur include the arroyo toad (*Bufo californicus*), San Diego horned lizard (*Phrynosoma coronatum blainvillii*), coastal western whiptail (*Aspidoscelis tigris stejnegeri*), pallid bat (*Antrozous pallidus),* and pocketed free-tailed bat *(Nyctinomops femorosaccus)*. These are discussed in more detail below.

Arroyo Toad (Federal Endangered Species; State Species of Concern; County Group 1)

Since our initial potential for occurrence evaluation, a focused arroyo toad habitat assessment was conducted on February 4, 2014 by ECORP biologist Brian Zitt (USFWS Arroyo Toad Recovery Permit TE-27460A-1). The habitat assessment included a reconnaissance survey of the Property and adjacent land use, as well as a review of aerial photography of off-site areas and potential corridors from previously documented locations of arroyo toads. In addition to the habitat assessment, a literature review and records search were also conducted. Below is a record of the results of the assessment and conclusions:

The land use onsite is predominantly agriculture (orchard) with disturbed/developed land and riparian woodlands. Two drainages run northeast to southwest through the site, one of which contained surface water (Drainage A). Drainage A, furthest to the north, was a low-gradient channel that lacked a clearly defined bank. The lower portions of this drainage were dry, and grasses and non-native vegetation (e.g., tamarisk) covered the stream channel. The upper portions of this drainage were wet and contained a dense canopy of willows. The wetted width was less than a meter and water depths were less than 10 centimeters.

The middle drainage (Drainage B, Tributary 1) contained a clearly defined bank with a moderate gradient, channel widths of one to two meters, and bank heights of one to three meters. The lower portions of the drainage were fairly open with surrounding oaks and the stream channel contained barriers made of concrete bags, likely used to slow water flow and help recharge groundwater during periods of flow. In the upper portions of this drainage, the channel contained a dense canopy of sycamore and coast live oak, with an open section of habitat spanning approximately 50 meters. Just upstream of this open area, the drainage runs into a dense thicket of eucalyptus trees (*Eucalyptus* sp.). Throughout the reach, the channel bottom was covered with grasses, leaf litter, ivy, and ice plant.

The drainage furthest to the south (Drainage B, Tributary 2) ran through the middle of the orchard before joining with Tributary 1. This drainage was similar in size and features to Tributary 1; however, Tributary 2 contained more instream barriers (concrete bag walls) and less of a canopy than Drainage B. These two tributaries join together and run through a dense stand of mulefat adjacent to a recently graded area, before continuing off-site through a culvert.

The habitat assessment was conducted during a period of below-average rainfall. Regardless, the drainage features present did not appear capable of sustaining water throughout the breeding cycle and due to their width and lack of well-developed riparian vegetation, would not be considered suitable breeding habitat for arroyo toads. At the time of the survey, the majority of the drainages were highly vegetated with grasses and forbs or covered with leaf litter. Sandy banks were present in a few sparse locations and loose, unconsolidated soils were observed. Loose soils are often associated with arroyo toad estivation habitat, where toads are present. Off-site aerial photos of the drainages that connect to the site lack a clearly defined channel, and surrounding land use is highly developed, consisting of mixed residential, business, and agricultural developments. The nearest records of arroyo toads to the Proprty were detected approximately six kilometers away in Paradise Creek in 2001 and Pauma Valley in 2004 (CNDDB

2014). These larger drainages offer suitable breeding habitat for arroyo toads and it is unlikely that there is connectivity between these populations and the Property. Based on the results of the habitat assessment and a review of the literature, Mr. Zitt determined that arroyo toads are presumed absent because of the unsuitable breeding habitat of the Property, the distance from suitable breeding habitat in proximity to the Property, and the unlikely dispersal into the Property due to connectivity constraints onsite and in the surrounding area.

San Diego Horned Lizard (State Species of Concern; County Group 2)
The coast horned lizard's range extends from northern California to the tip of Baja California. The subspecies found in southern California, *blainvillii*, is distributed throughout the foothills and coastal plains from the Los Angeles area to northern Baja California. It frequents areas with abundant, open vegetation such as chaparral or coastal sage scrub. All subspecies intergrade widely and recent studies indicate that no subspecies should be recognized (http://www.sdnhm.org/archive/fieldguide/herps/phry-cor.html). One occurrence documented in the CNDDB was recorded (1937) within 5 miles of the Project area, and marginally suitable habitat habitat exists in a portion of the Property. The species was determined to have a moderate potential to occur.

Coastal Western Whiptail (County Group 2)
This species is typically found in deserts and semiarid areas with sparse vegetation and open areas, and is also found in woodlands and riparian areas. One occurrence documented in the CNDDB was recorded (2001) within 5 miles of the Proprty. Riparian and woodland habitat exists in the Project area and could provide suitable habitat for the species. However, the species was determined to have a moderate potential to occur.

Pallid Bat (State Species of Concern; County Group 2)
This species is known to occur in a number of habitats, including coniferous forests, nonconiferous woodlands, brushy terrain, rocky canyons, open farm land, and desert. Common roost sites are rock crevices, old buildings, bridges, caves, mines, and hollow trees. Occurences have been recorded in the vicinity of the Property, and hollow trees and buildings could be used as roost sites. We determined that this species has a low potential for occurrence on the Property.

Pocketed Free-Tailed Bat (State Species of Concern; County Group 2)
This species is likely confined to the southern third of the state and is relatively uncommon. The species is associated primarily with creosote bush and chaparral habitats. It is found primarily in association with prominent rock features such as very large boulder jumbles or rocky canyons. This species is known to roost in high cliffs and rugged rock outcroppings, and there is an occurrence record within 5 miles of the Property. Marginal habitat exists on the Property, within the oak woodlands and southern mixed chaparral, and the likelihood for occurrence is low.

Several additional sensitive animal species known to occur within the County were evaluated for their potential to occur on the Property. Of those evaluated, the following species ranked as Group 1 (very high level of sensitivity) and were determined to have a moderate potential to occur in the Project area: white-tailed kite (*Elanus caerulues*) and Cooper's hawk (*Accipiter cooperi*). The sharp-shinned hawk (*Accipiter striatus*) could also occur as a winter visitor but is not expected to breed on site due to lack of typical breeding habitat (pine forests). There are no record occurences within the vicinity of the Property of either Cooper's hawk or white-tailed kite, but the area is within each species' breeding range and each of these species could use the oak woodlands or other tree species on site for perching and nesting, and the surrounding open space areas for forage. Due to the level of disturbance present, it is unlikely that most sensitive animal species for which the Property is within range would occur. Among those that could be expected to sometimes use the Property are western bluebird (*Sialia mexicana*), California horned lark

(*Eremophila alpestris actia*), southern mule deer (*Odocoileus hemionus*), and San Diego ringneck snake (*Diadophis punctatis similis*).

Large Mammal Use

There were no signs of large mammal species observed on the Property during the surveys, but the Property is within the San Diego County range of native medium and large mammals, including bobcat (*Lynx rufus*), mountain lion (*Felis concolor*) and coyote (*Canis latrans*). The site could receive occassional use by mule deer (*Odocoileus hemionus*). Disturbances due to agriculture, developed areas, and ongoing human activity likely limit the use of the Property by the deer and mountain lion, but use by both bobcat and coyote, along with many smaller mammal species, could occur due to the water sources present and natural stream corridors. If these species were to use the site, they would be expected to pass through temporarily.

The Property is partially fenced, and the majority of the neighboring properties are also fenced so wildlife travel through the area in eastern and western directions is likely acheived using Via Valencia. Existing entrances/exits to the Property currently include the driveway to the residence and a small opening at the upstream and downstream ends of Dranage A and upstream portion of Drainage B. Use of the Property by large mammals is somewhat constrained due to the existing fence. The Property can be considered to support habitat for large mammal species but it is not considered a key habitat area for these species.

Migratory Birds and Raptors

The Property contains habitat for migratory bird and species and potential for raptor foraging and nesting. No long-standing nests were observed within the Property during the field reconnaissance survey; however, coast live oaks and California sycamore and other tree species provide suitable habitat for raptor nesting while the adjacent fallow/agricultural land is suitable for foraging for prey. Due to the lack of a dense shrub layer and sparsely distributed riparian vegetation, there is insufficient habitat for riparian species such as least Bell's vireo (*Vireo bellii pusillus*) or southwestern willow flycatcher (*Empidonax extimus traillii*).

Jurisdictional Wetlands and Waterways

Two intermittent drainage features (Tributaries 1 and 2 of Drainage B, Figure 4) run east to west across the central region of the Property boundary. Tributary 1 enters the northeastern portion of the Project site as a heavily eroded and incised channel with bank-to-bank widths measuring nearly ten feet. Tributary 1 channel widths quickly diminish, averaging four feet bank to bank, and the drainage overall becomes stabilized through the remainder of the site. Tributary 2 bank-to-bank channel widths range from one to six feet, with largest widths occurring along the downstream extent of the Project. Approximately two inches of surface water were observed within Tributary 2 on December 12, 2012, just upstream of the intersection with Tributary 1. In several places along both drainages there were man-made dams and culverts constructed of concrete and other assorted small control structures. The drainages continue through a concrete culvert under a private road and eventually west of Cole Grade Road through similar agricultural lands before feeding into Keys Creek (a tributary to San Luis Rey River).

An additional drainage feature (Drainage A) runs north to south near the western boundary of the Property. The offsite, upstream portion of the drainage was inundated at the time of our February 2014 visit, but this was not expressed on-site. Drainage A is best characterized as an ephemeral drainage with subtle bed and bank indicators for the majority of the reach. The banks of the channel are severely incised in the lower portion of the reach, south of Via Valencia.

Drainage A and Drainage B are within the jurisdiction of and regulated by the U.S. Army Corps of Engineers (USACE), California Department of Fish and Wildlife (CDFW), and Regional Water Quality Control Board (RWQCB).

The County's Resource Protection Ordinance protects sensitive resources, including wetland areas, within the County. The County Guidelines specify that wetlands are present wherever there is a predominance of hydrophytes, where there is a predominance of undrained hydric soils, or where an ephemeral or perennial stream is present. The drainage features located on the Property meet the criteria to be considered a wetland under County guidelines.

Riparian habitat is sparse within and adjacent to the drainage features, with the most abundant habitat and riparian buffer width occurring along the eastern extent of Drainage B. The majority of riparian habitat has been disturbed. The canopy observed along each of the drainages is dominated by coast live oak and California sycamore in the tree strata, as well as several palm trees. Below the tree canopy, poison oak (*Toxicodendron diversilobum*) and umbrella sedge (*Cyperius eragrostis*) were sparsely distributed. An herbaceous layer ranged from a moderate to sparse cover of non-native herbaceous species or leaf litter. In addition, mule fat was observed in extremely small patches along the drainages, particularly west of the drainage intersect. Non-native species were dominant throughout all reaches including English ivy (*Hedera helix),* tamarisk, tree tobacco, Peruvian pepper tree, curly dock (*Rumex crispus*), and ice plant.

Wildlife observed within and adjacent to the drainage features included common raven, northern mockingbird, house finch, and California ground squirrel.

No vernal pools or seasonal depressions were observed.

Other Unique Features/Resources

Additional features that were considered in this analysis include wildlife corridors and linkages, topography and soils, and other biological functions (such as microhabitats and rock outcrops).

Wildlife Corridors and Linkages

The natural movement corridors within the Property occur along the existing drainage features. Wooded canyons serve as natural corridors for wildlife due to their abundant cover, the source of seasonal water, and the directional path that they represent for navigation. Land uses surrounding the Property are generally highly disturbed and developed and are as constrained as those found within the Property. The connection through the Property, when considered within the landscape context, is tenuous for most of the larger species of wildlife to use on a regular basis. The corridor is expected to be used mostly for local rather than regional travel and it is expected to mostly be used by small to medium mammal species, bird species, and some other types of animals.

The Property is partially fenced, and the majority of the neighboring properties are also fenced, so wildlife travel through the area in east and west direction is likely acheived using Via Valencia. Existing entrances/exits to the Property currently include the driveway to the residence and a small opening at the upstream and downstream ends of Dranage A and upstream portion of Drainage B. Use of the Property by large mammals is somewhat constrained due to the existing fence.

Topography and Soils

Topography throughout the Property is relatively flat, with minor swales in the northeastern portion of the site leading to Tributary 1. A soils analysis search was conducted using NRCS soil survey data (http://websoilsurvey.nrcs.usda.gov). Four soil series occur within the Property, two of which are

associated with vernal pool occurrence in the region (Bonsall and Placentia). Bonsall soil series (BmC) is a heavy clay loam. Placentia soil series (PeC) is a sandy clay soil. Historical aerial images were reviewed using Google Earth. The Property has historically been a citrus grove and there were no indications of depressions or areas where ponding would occur, other than in the active channel of the on-site drainage features.

Other Biological Functions

The Property contains several microhabitats that could be used by a variety of wildlife. There are rock outcroppings located in the southeast portion of the Property. These outcrops could provide lizard basking habitat or shelter for other reptile species or mammal species. In addition, there were debris piles and downed tree branches on the Property that would provide potential refugia for fossorial or cryptic species such as the San Diego ringneck snake. Other microhabitats include culverts, cavities within oak trees, and downed logs. These areas were considered when analyzing the potential occurrences for species that use these types of habitats.

Significance of Project Impacts and Proposed Mitigation

This section provides a description of the anticipated impacts to biological resources located within or adjacent to the development area. Mitigation measures, where required, are proposed that will reduce the level of impact to less than significant under County guidelines (County 2010).

For the purpose of this discussion, direct impacts entail those that remove or alter habitat areas permanently. An example of this type of impact would be a grading operation or clearing and grubbing of a property. Indirect impacts entail effects to habitat or species that occur over time due to adverse changes to a land parcel. There are short-term indirect impacts, such as those associated with construction activities, and long term indirect impacts such as those associated with lighting in a completed residential development. The magnitude of each impact can be the same, but generally indirect impacts have a higher threshold of significance than direct impacts.

Significance of an impact on biological resources is based on the sensitivity of a biological resource being impacted, the size of the impact in terms of acreage, the number of individuals in a population of plants or animals that are affected, and the potential loss or reduction of a plant or animal population within a region. Impacts that are considered to be significant must be mitigated to below a level of significance in accordance with County guidelines.

The project is a proposed PV solar facility with a development area of 19.31 acres, within the approximately 66-acre property. The design would place the solar panels within orchard, disturbed, and developed areas. To the maximum extent practicable for maintaining functionality of the proposed project, oak woodlands, wetlands, and riparian/riverine corridors and their associated buffer areas have been avoided by the project design (Table 1).

Table 1.
Habitat/Vegetation Community Impacts and Required Mitigation

Habitat/ Vegetation community	Existing (acres)	Project Area Impacts (acres)	Mitigation Ratio	Mitigation Required (acres)	Avoided
Coast Live Oak (Individual)	0.09	none	N/A	none	0.09
Coast Live Oak	3.18	none	N/A	none	3.18

Woodland					
Developed/Disturbed	4.11	0.80	none	none	3.31
Disturbed Coastal Sage Scrub	0.27	none	N/A	none	0.27
Disturbed Southern Riparian Scrub	0.05	none	N/A	none	0.05
Engelman Oak (Individual)	0.02	none	N/A	none	0.02
Mulefat Scrub	0.27	none	N/A	none	0.27
Orchard/Fallow Agricultural	58.41	18.52	none	none	39.89
Rock Outcropping	0.04	none	N/A	none	0.04
Southern Mixed Chaparral	0.24	none	N/A	none	0.24
TOTAL	**66.68**	**19.31**			**47.37**

Regional Planning and Local Ordinances

The Property is located within the study area for the draft North County MSCP, but is located outside of any of the proposed PAMAs. Objectives of the draft MSCP include the biological goal to develop a preserve that will maintain the existing diversity of plant and animal life in the region and contribute to the recovery of formally listed plant and animal species. Development of this parcel, because it is not within a PAMA and does not create significant impacts to key biological resources, would not jeopardize the design of the draft MSCP or its biological goals.

The County Resource Protection Ordinance (RPO) identifies a wetland buffer for a project as being the area needed to protect the function and value of the wetland. The Property contains drainages and associated riparian habitat that qualify as wetlands under the County guidelines. Although no buffer width is specified within the guidelines, a minimum of 50 feet and a maximum of 200 feet of buffer is recommended for most projects. The project incorporated into its design a minimum buffer of 50 feet surrounding each riparian corridor and where applicable the buffer includes the entirety of the oak woodland habitat associated with the drainage systems. The factors considered in determining the appropriate width of the buffer included the value of the oak woodlands within the context of the Property and its resources. The minimum recommended buffer was used due to the disturbed setting of the project site, the disturbed and fragmented quality of the vegetation communities within and directly adjacent to the wetland areas, the expected low diversity of wildlife, the size of the wetland, and potential edge effects of the proposed project. The 50-foot wetland buffer plus the oak woodland buffer (includes a 50-foot oak root protection zone) would be appropriate for the low quality, low functioning wetlands that are present on the Property. This buffer is also appropriate for project area because the soils are not highly erosive, and upland slopes do not exceed 25%. The project has been designed in a manner that project development areas and associated fuel modification zones are outside of these buffer areas. The project design avoids impacts to these areas in a manner consistent with the RPO.

Habitats/Vegetation Communities

The project will impact orchard/fallow agriculture habitat and disturbed/developed areas, 18.52 and 0.80 acres respectively. Design measures to avoid all sensitive resources have been incorporated into the project.

Special Status Species

Mature trees within the project area could provide suitable nesting habitat for raptors and migratory birds. All raptor species and an extensive number of migratory birds are protected by the Migratory Bird

Treaty Act (MBTA) and the California Fish and Game Code 3503.5. It is not anticipated that any federal or state listed raptors or other avian species have the potential to nest within the development area of the project. The species of local and state concern with potential to occur in the project area would be utilizing the habitats that are being completely avoided by the project (e.g. oak woodland, riparian, and chaparral). Direct or indirect impacts to special-status species that are formally listed are not currently anticipated. All listed species are regulated under the Endangered Species Act (ESA) and California Endangered Species Act (CESA; County of San Diego 2009). Take of listed species can be authorized under separate section 7 consultations, section 10 Habitat Conservation Plans (HCPs), and state incidental take permits under section 2081 of the California Fish and Game Code.

In addition to the design measures already taken, there are proposed mitigation measures to avoid impacts to wildlife species and resources on the Property:

- No brushing, clearing, grading, or construction (project activities) within 300 feet of raptor nests or 100 feet of songbird nests would occur during the breeding season. The breeding season is defined as occurring between January 15 and July 15 for raptors and February 1 and September 15 for songbirds. If project activities need to occur during the breeding season, applicant may proceed with activities if there is evidence from a pre-construction nesting survey that there are no active nests within 300 feet for raptor nests or 100 feet for a songbird nests, or that active nests will not be exposed to noise exceeding 60 dB Leq or ambient (if ambient is greater than 60 dB Leq). The applicant will provide a letter documenting its adherence to this condition.

- Prior to the commencement of any grading and/or clearing in association with this grading plan, temporary orange construction fencing shall be placed to protect from inadvertent disturbance of areas outside of the approved development area and to prevent encroachment upon sensitive environmental resources.

Wildlife Corridors and Linkages

The habitat avoidance under the current Project configuration is expected to effectively preserve local movement corridor functions and values.

Wetland Buffer

The project has been designed around a minimum 50-foot wetland buffer surrounding each riparian corridor and, where applicable, the wetland buffer also includes the oak woodland habitat associated with the drainages and the oak root protection zone buffer of 50 feet. The project design avoids and minimizes impacts to these areas in a manner consistent with the RPO.

Cumulative Impacts

The Project would impact primarily orchard habitats, disturbed habitats and developed areas. These habitat types are not considered sensitive and impacts to them are not being proposed to be mitigated. The Property is not expected to support species that are formally listed at either the federal or state levels. There are no anticipated losses of habitat such that the Project would substantially reduce the habitat of a particular wildlife species to below self-sustaining levels or threaten to extirpate a plant or animal community. The Property is not proposed as a part of the future MSCP preserve for the region, because it is not considered to be regionally important as either a wildlife movement corridor or as a biological core area.

As discussed above, the proposed project was determined to not have a significant adverse effect on riparian habitat and sensitive natural communities; federally protected wetlands; and wildlife corridors.

Therefore the project would not contribute to the cumulative impact with respect to these issues, and the effects are not cumulatively considerable. No mitigation would be required.

All past, present, and future projects in the region would have been and will be required to comply with MBTA and CFG Codes that protect breeding/nesting birds and raptors in a similar fashion as described here as a mitigation measure. Therefore cumulative impacts on nesting birds would be mitigated to less than significant levels. No additional mitigation would be required.

No significant cumulative environmental impacts are anticipated as a result of this project.

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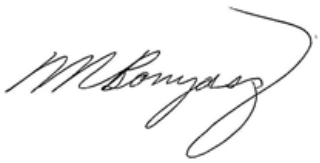
Preparer

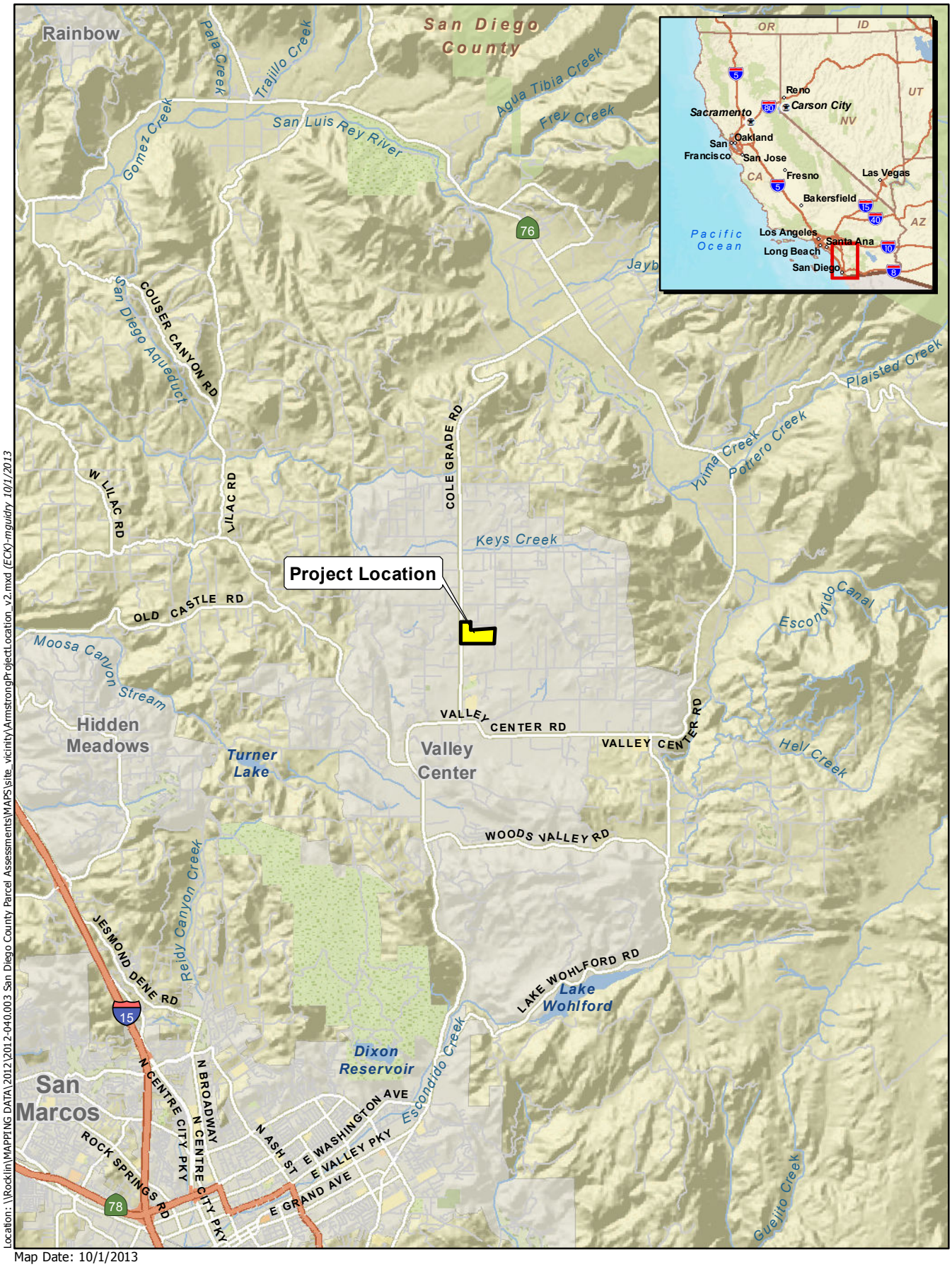
This report was prepared by Margaret Bornyasz.



This report was approved by Scott Taylor, County-approved biologist.

Attachments

I. Representative Photographs and Reference Map
II. Sensitive Species Potential for Occurrence List: Plants
III. Sensitive Species Potential for Occurrence List: Wildlife



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Map Date: 10/1/2013
Source: ESRI

Figure 1. Project Location

ECORP Consulting, Inc.
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2015-029 NLP Valley Center LLC Solar Project

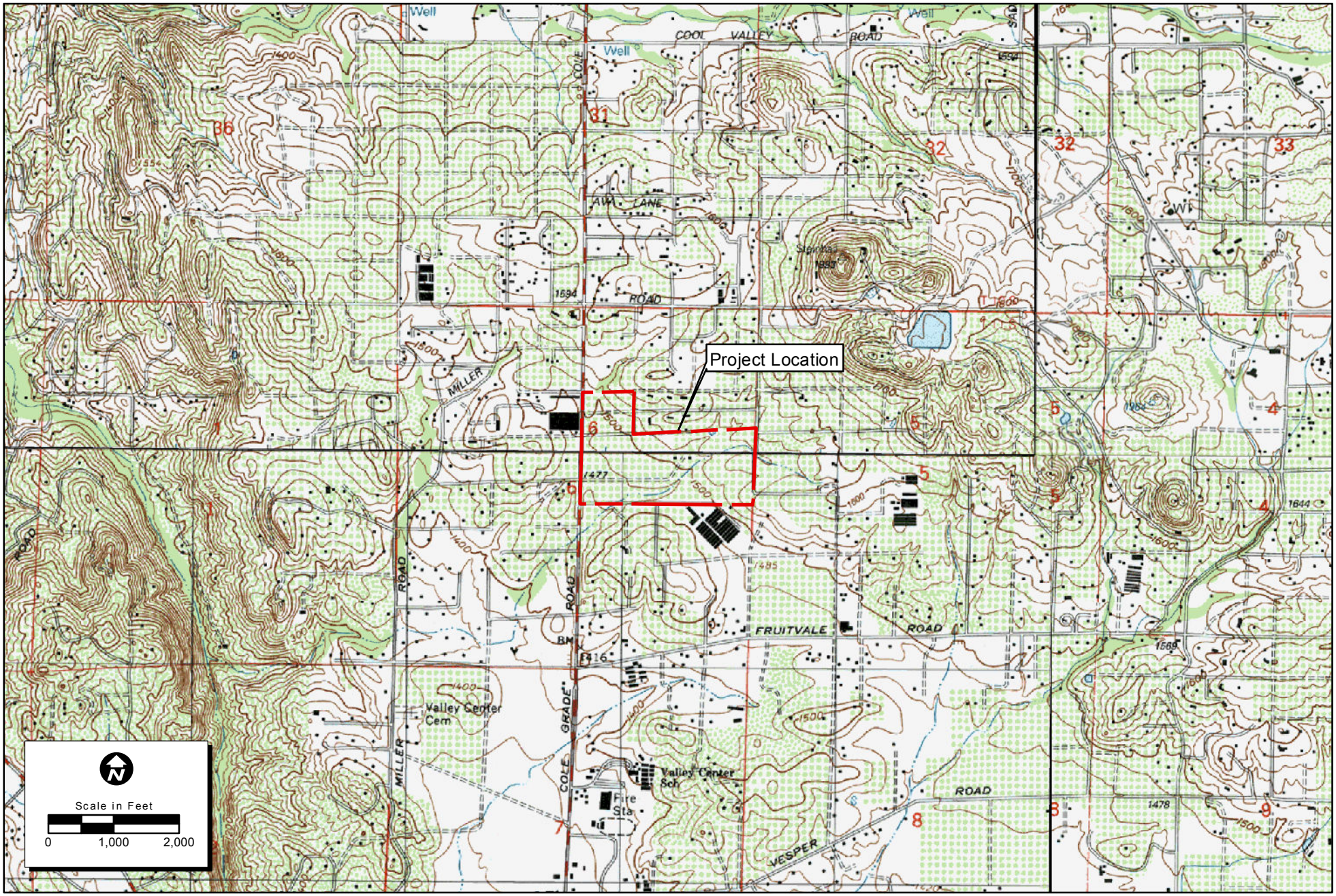

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Figure 2. USGS Topographic Map

2015-029 NLP Valley Center LLC Solar Project

ECORP Consulting, Inc.
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Figure 3.
NRCS Soil Types

Map Features

Property Boundary

Property Boundary 100' buffer

NRCS Soil Type

Series Code - Series Name

BlC - Bonsall sandy loam, 2 to 9 percent slopes

BlC2 - Bonsall sandy loam, 2 to 9 percent slopes, eroded

FaC - Fallbrook sandy loam, 5 to 9 percent slopes

FaC2 - Fallbrook sandy loam, 5 to 9 percent slopes, eroded

FaD2 - Fallbrook sandy loam, 9 to 15 percent slopes, eroded

FaE2 - Fallbrook sandy loam, 15 to 30 percent slopes, eroded

FeC - Fallbrook rocky sandy loam, 5 to 9 percent slopes

FeE2 - Fallbrook rocky sandy loam, 9 to 30 percent slopes, ero ded

FvE - Fallbrook-Vista sandy loams, 15 to 30 percent slopes

GrB - Greenfield sandy loam, 2 to 5 percent slopes

PeC - Placentia sandy loam, 2 to 9 percent slopes

PfC - Placentia sandy loam, thick surface, 2 to 9 percent slo pes

Natural Resources Conservation Service (NRCS) Soil Survey Geographic (SSURGO) Database for San Diego County, CA

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2015-029 Baywa - Valley Center

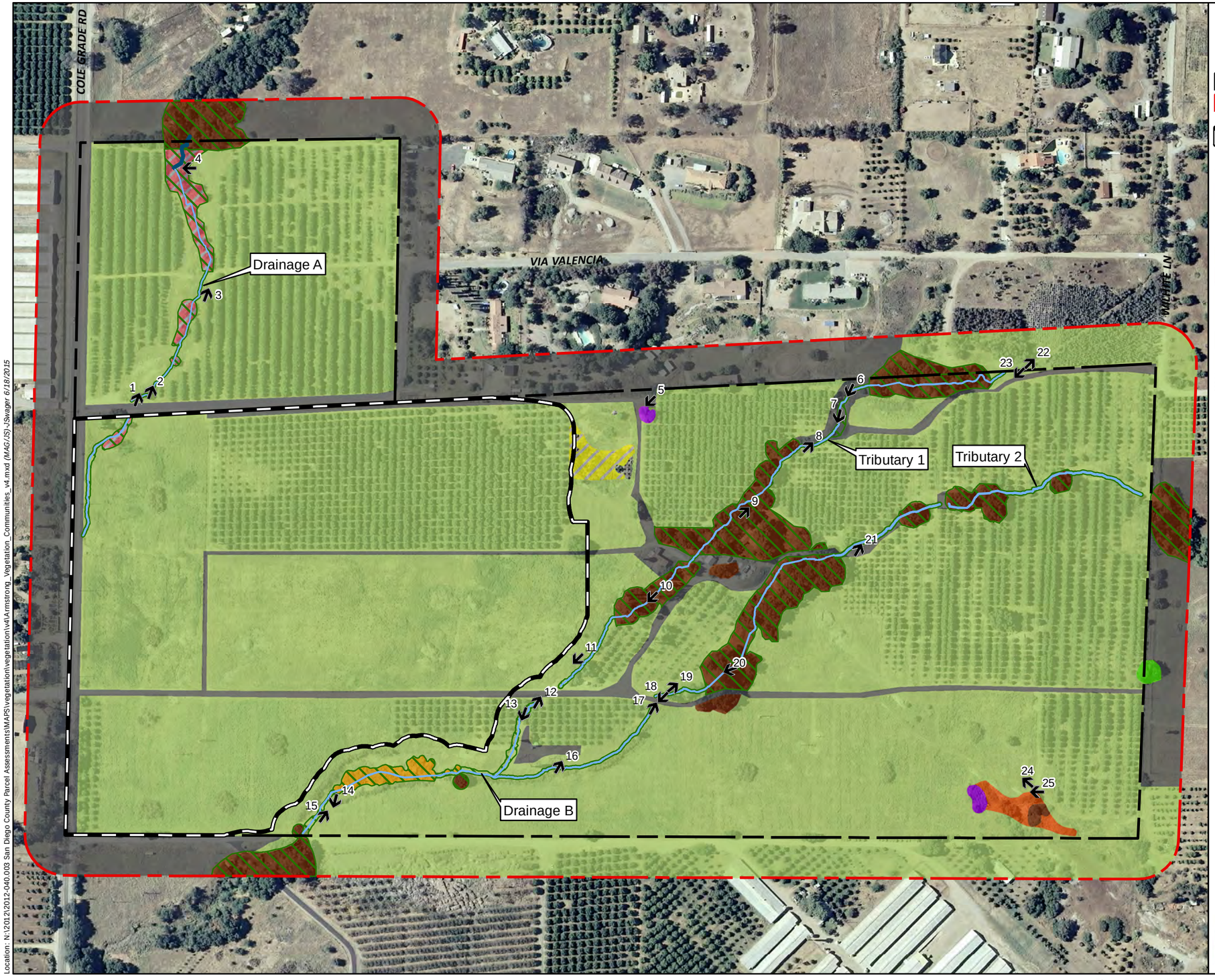
Scale in Feet
0 400

Photo Source: NAIP 2014

Map Date: 6/18/2015

Location: N:\2012\2012-040.003 San Diego County Parcel Assessments\MAPS\soils_and_geology\soils\Armstrong_Soils_v2.mxd (ECK/MAG/JS) JSwager 6/18/2015

Figure 4.
Vegetation Communities



Property Boundary [1]
Property Boundary 100' Buffer
Project Boundary
Photograph

Top of Bank/Associated Riparian Habitat

Waters of the US/State
- Ephemeral Stream
- Intermittent Stream

Vegetation Community
- Coast Live Oak (Individual)
- Coast Live Oak Woodland (71160)
- Disturbed Habitat (11300) / Developed (12000)
- Disturbed Coastal Sage Scrub (32040)
- Disturbed Southern Riparian Scrub (11300)
- Engelman Oak (Individual)
- Mule Fat Scrub (63110)
- Orchard/Fallow Agriculture (18100)
- Southern Mixed Chaparral (37120)
- Rock Outcropping

Vegetation Communities

Vegetation Classification	Acres
Coast Live Oak (Individual)	0.09
Coast Live Oak Woodland	3.28
Developed/Disturbed	5.05
Disturbed Coastal Sage Scrub	0.27
Disturbed Southern Riparian Scrub	0.49
Engelman Oak (Individual)	0.02
Mulefat Scrub	0.27
Orchard/Fallow Agriculture	68.94
Rock Outcropping	0.04
Southern Mixed Chaparral	0.24
Total	***78.69***

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Location: N:\2012\2012-040.003 San Diego County Parcel Assessments\MAPS\vegetation\vegetation\v4\Armstrong_Vegetation_Communities_v4.mxd (MAG/JS) JSwager 6/18/2015

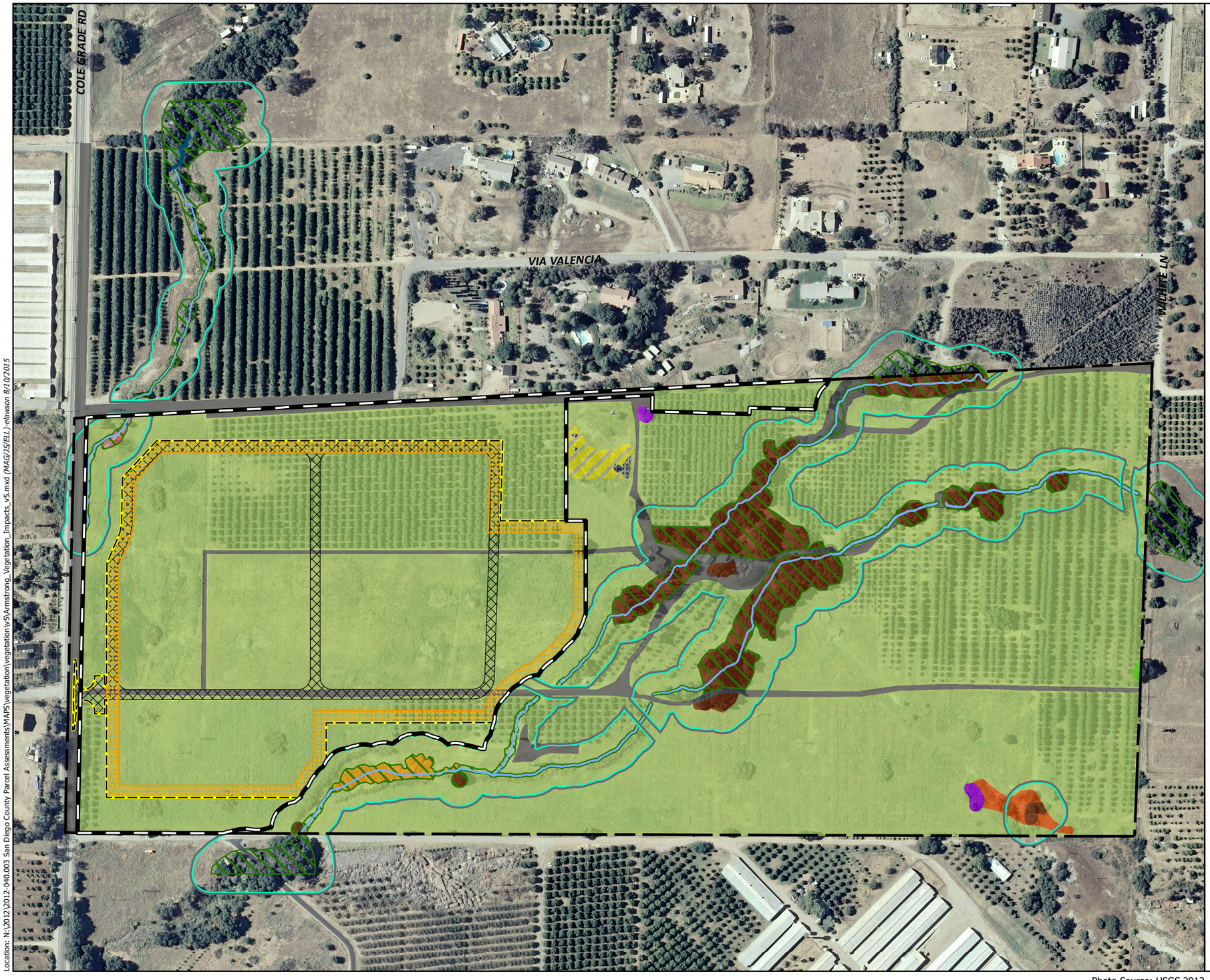
2015-029 Baywa - Valley Center

Scale in Feet
0 200 400

Photo Source: USGS 2012
[1] Michael Baker
135828-impacts_2.dwg Polyline
BayWa-VC impacts-2015-06-09.dwg

Map Date: 6/18/2015

Figure 5.
Vegetation Impacts



Property Boundary [1]
Sensitive Resource 50' Buffer
Top of Bank/Associated Riparian Habitat
MUP Boundary [1]
Development Area [1]
Fuel Modification Zone [1]
Access Road [1]

Waters of the US/State
- Ephemeral Stream
- Intermittent Stream

Vegetation Community
- Coast Live Oak (Individual)
- Coast Live Oak Woodland (71160)
- Disturbed Habitat (11300) / Developed (12000)
- Disturbed Coastal Sage Scrub (32040)
- Disturbed Southern Riparian Scrub (11300)
- Engelman Oak (Individual)
- Mule Fat Scrub (63110)
- Orchard/Fallow Agriculture (18100)
- Southern Mixed Chaparral (37120)
- Rock Outcropping

Vegetation Impacts

Vegetation Classification	Acres
Orchard/Fallow Agriculture	18.52
Developed/Disturbed	0.80
Total	*19.31*

Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

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2015-029 Baywa - Valley Center

Scale in Feet
0 200 400

Photo Source: USGS 2012
[1] Michael Baker
135828-impacts_2.dwg Polyline
BayWa-VC impacts-2015-06-09.dwg

Map Date: 8/10/2015

Photo 1

Photo 2

Photo 3

Photo 4

Photo 5

Photo 6

Photo 7

Photo 8

Photo 9

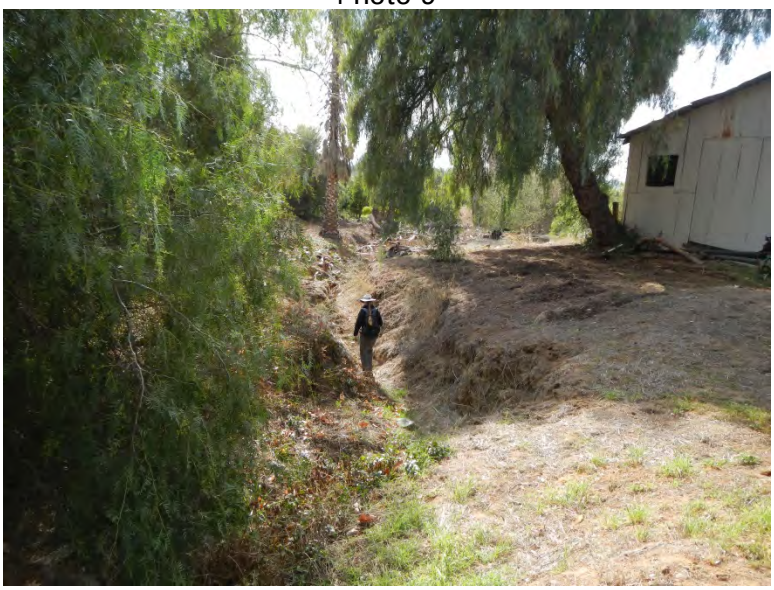

Photo 10

Photo 11

Photo 12

Photo 13

Photo 14

Photo 15

Photo 16

Photo 17

Photo 18

Photo 19

Photo 20

Photo 21

Photo 22

Photo 23

Photo 24

Photo 25

Attachment II. Sensitive Species Potential for Occurrence List: Plants

Common Name	Scientific Name	Status		General Habitat Description	Habitat	Blooming Period	Elevation (meters)	Potential to Occur within the Project Area
Plants								
Nevin's Barberry	*Berberis nevinii*	Fed: State: CNPS:	END S1 1B.1	On Steep, North-Facing Slopes Or In Low Grade Sandy Washes.	Absent	March-June	290-1575	Presumed Absent. Suitable Habitat does not occur within project area.
Thread-leaved brodiea	*Brodiaea filifolia*	Fed: State: CNPS:	THR S1 1B.1	Usually Associated With Annual Grassland And Vernal Pools; Often Surrounded By Shrubland Habitats, Clay Soils.	Present	March-June	25-860	Presumed Absent. Clay soils typically associated with this species are not present within the project area.
San Diego milk-vetch	*Astragalus oocarpus*	Fed: State: CNPS:	SS S2 1B.2	Openings In Chaparral Or On Gravelly Flats And Slopes In Thin Oak Woodland. Cismontane chaparral edges at the periphery of meadows	Absent	May-August	305-1500	Presumed Absent. Suitable Habitat does not occur within project area.
Parry's tetracoccus	*Tetracoccus dioicus*	Fed: State: CNPS:	SS S2 1B.2	Chaparral, Coastal Scrub. Stony, Decomposed Gabbro Soil. Chamise Chaparral, with moderately dense canopy cover	Absent	April-May	150-1000	Presumed Absent. Suitable Habitat does not occur within project area.
Felt-leaved monardella	*Monardella hypoleuca* ssp. *lanata*	Fed: State: CNPS:	None S1 1B.2	Chaparral, Cismontane Woodland. Typically it occurs beneath mature stands of Chamise in xeric situations	Absent	June-August	300-1190	Presumed Absent. Suitable Habitat does not occur within project area.

Rainbow manzanita	*Arctostaphylos rainbowensis*	Fed: State: CNPS:	None S2 1B.1	Chaparral	Absent	December-March	205 -670	Presumed Absent. Would have been observed in the small patch of chaparral in the project area.
Dunn's mariposa lily	*Calochortus dunnii*	Fed: State: CNPS:	None S2 1B.2	Closed-Cone Coniferous Forest, Chaparral/Gabbroic Or Metavolcanic, Rocky	Absent	April-June	380-1830	Presumed Absent. Suitable Habitat does not occur within project area.
Ramona Horkelia	*Horkelia truncata*	Fed: State: CNPS:	None S2 1B.3	Chaparral, Cismontane Woodland/Clay. Chamise Chaparral is usually common at Ramona Horkelia sites	Present	May-June	400-1300	Presumed Absent. Small patch of chaparral in the project area is disturbed and fragmented.
Orcutt's brodiaea	*Brodiaea Orcuttii*	Fed: State: CNPS:	None S2 1B.1	Mesic, clay, sometimes serpentine soils. Closed-cone coniferous forest, chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, and vernal pools.	Absent	May-July	30-1692	Presumed Absent. Suitable Habitat does not occur within project area.
Summer holly	*Comarostaphylis diversifolia* ssp. *diversifolia*	Fed: State: CNPS:	None S2 1B.2	Chaparral, cismontane woodland	Absent	April-June	30-790	Presumed Absent. Suitable Habitat does not occur within project area.
Chaparral Nolina	*Nolina cismontana*	Fed: State: CNPS:	None S2 1B.2	Chaparral, Coastal Scrub/Sandstone Or Gabbro	Absent	May-July	140-1275	Presumed Absent. Suitable Habitat does not occur within project area.
Mesa horkelia	*Horkelia cuneata* var. *puberula*	Fed: State: CNPS:	None S2 1B.2	Sandy or gravelly, Chaparral (maritime), Cismontane	Absent	February-September	70-810	Presumed Absent. Suitable Habitat does not occur within project area.

				woodland, Coastal scrub				
Southern skullcap	*Scutellaria bolanderi* ssp. *austromontana*	Fed: State: CNPS:	None S2 1B.2	Chaparral, Cismontane Woodland, Lower Montane Coniferous Forest. Typically growing on the moist embankments of montane creeks	Absent	June-August	425-2000	Presumed Absent. Suitable Habitat does not occur within project area.
Delicate clarkia	*Clarkia delicata*	Fed: State: CNPS:	None S3 1B.2	The periphery of oak woodlands and cismontane Chaparral	Present	April-June	235-1000	Presumed Absent. Though oak and chaparral habitats occur within project area, the periphery of these areas is disturbed and the site is fragmented.
Payson's Jewel Flower	*Caulanthus simulans*	Fed: State: CNPS:	None S3 4.2	Juniper Woodland with isolated Pinyon Pines, sheephead rocky fine sandy loam	Absent	March-May	90-2200	Presumed Absent. Suitable Habitat does not occur within project area.
Southern Mountain Misery	*Chamaebatia australis*	Fed: State: CNPS:	None S3 4.2	Impenetrable thickets, restricted to gabbroic or metavolcanic derived soils, chamise chaparral	Absent	November-May	300-1020	Presumed Absent. Suitable Habitat does not occur within project area.
Western Dichondra	*Dichondra occidentalis*	Fed: State: CNPS:	None S3 4.2	Southern Mixed Chaparral, Diegan Sage Scrub, rocky outcrops in grasslands, and exposed areas of post-burn habitat	Present	January-July	50-500	Presumed Absent. Small patch of chaparral in the project area is disturbed and fragmented.

Graceful Tarplant	*Holocarpha virgata*	Fed: State: CNPS:	None S3 4.2	Annual and perennial grasslands, abundantly on Chesterton fine sandy loam among Eurasian grasses	Absent	May-November	60-1100	Presumed Absent. Suitable Habitat does not occur within project area.
Cleveland's Bush Monkey Flower	*Mimulus clevelandii*	Fed: State: CNPS:	None S3 4.2	Chaparral and Lower Montane Coniferous Forest. Appears to strictly follow metavolcanic or gabbroic soils	Absent	April-July	450-2000	Presumed Absent. Suitable Habitat does not occur within project area.
San Diego County Viguiera	*Viguiera laciniata*	Fed: State: CNPS:	None S3 4.2	Arid Diegan Sage Scrub and chaparral	Absent	February-August	60-750	Presumed Absent. Suitable Habitat does not occur within project area.
Rush-like bristleweed	*Xanthisma junceum*	Fed: State: CNPS:	None S3 4.3	Chaparral and coastal sage scrub coastal, in inland slopes and canyons	Absent	June-January	230-1000	Presumed Absent. Suitable Habitat does not occur within project area.
Fish's Milkwort	*Polygala cornuta*	Fed: State: CNPS:	None S3 4.3	Chaparral and Cismontane Woodland with Coast Live Oaks	Present	May-August	100-1000	Presumed Absent. Though oak and chaparral habitats occur within project area, these areas are disturbed and the site is fragmented.
Robinson's pepper-grass	*Lepidium virginicum* var. *robinsonii*	Fed: State: CNPS:	None S3 4.3	Chaparral, coastal scrub	Absent	January-July	1-885	Presumed Absent. Suitable Habitat does not occur within project area.

Federal Designations:
(Federal Endangered Species Act, United State Fish and Wildlife Service [USFWS] Bureau of Land Management [BLM], United States Forest Service [FS])
END: Federally listed, endangered
THR: Federally listed, threatened
SS: BLM sensitive species
S: FS sensitive species

State Designations:

(California Endangered Species Act [CESA], California Dept. of Fish and Wildlife [CDFW])
S1: Critically imperiled
S2: Imperiled
S3: Vulnerable State-fully protected
S4: Apparently Secure
S5: Secure

California Rare Plant Rank (Formerly known as CNPS List) Designations:
(From the California Native Plant Society)
1A: Plants presumed extinct in California
1B: Plants rare, threatened, or endangered in California and elsewhere
2: Plants rare, threatened, or endangered in California, but more common elsewhere
3: Plants about which we need more information – a review list
4: Plants of limited distribution – a watch list
Threat Ranks extensions:
0.1 Seriously threatened in California
0.2 Fairly threatened in California
0.3 Not very threatened in California

* Species was observed in the immediate vicinity of the project area during the surveys.
** Species has been previously documented in close proximity of the project area (CDFG 2012a), and sign of the species was observed in the vicinity during the survey.

All sensitive species found within the database searches were assessed for their potential to occur on site based on the following criteria guidelines:
Present: Species was observed in the BSA during a site visit or focused survey.
High: Habitat (including soils and elevation factors) for the species occurs in the BSA and a known occurrence has been recorded within 5 mi (8 km) of the site.
Moderate: Habitat (including soils and elevation factors) for the species occurs in the BSA and a known occurrence occurs within the database search, but not within 5 mi (8 km) of the site; or a known occurrence occurs within 5 mi (8 km) of the site and marginal or limited amounts of habitat occurs in the BSA.
Low: Limited habitat for the species occurs in the BSA and a known occurrence occurs within the database search, but not within 5 mi (8 km) of the site; or suitable habitat strongly associated with the species occurs on site, but no records were found within the database search.
Presumed Absent: Species was not observed during focused surveys conducted in accordance with protocol guidelines at an appropriate time for identification; or habitat (including soils and elevation factors) does not exist on site, or the known geographic range of the species does not include the survey area.

Note: Location information on some sensitive species may be of questionable accuracy or unavailable; therefore, for survey purposes, environmental factors associated with species occurrence requirements may be considered sufficient reason to give a species a positive potential for occurrence.

Source: California Natural Diversity Database (CNDDB 2013), and California Native Plant Society Electronic Inventory (CNPS 2013).

Attachment III. Sensitive Species Potential for Occurrence List: Wildlife

Common Name	Scientific Name	Status		General Habitat Description	Habitat	Potential to Occur within the Project Area
Invertebrates						
Quino checkerspot butterfly	*Euphydrya editha quino*	Fed: State: MSCP: County:	END None NE 1	Coastal lowland and inland valleys with food plants (e.g., *Plantago erecta*) and nectaring resources.	Absent	Presumed Absent. Suitable habitat and food plants are absent
Harbison Dun Skipper	*Euphyes vestris harbisoni*	Fed: State: MSCP: County:	None None NE 1	Chaparral and riparian areas within narrow canyons or narrow drainages, and that have the host plant (*Carex spissa*).	Absent	Presumed Absent. Suitable habitat and food plants are absent
Hermes Copper	*Lycaena hermes*	Fed: State: MSCP: County:	None None None 1	Areas with mature redberry (*Rhamnus crocea*) in the coastal plain and inland foothills.	Absent	Presumed Absent. Suitable habitat and food plants are absent
Monarch butterfly	*Danaus plexippus*	Fed: State: MSCP: County:	None None None 2	Fields and meadows with milkweed (*Asclepias* sp.). Eucalyptus groves and other tree groves during winter.	Absent	Presumed Absent. Suitable habitat not present.
Amphibians						
Arroyo toad	*Bufo californicus*	Fed: State: MSCP: County:	END SSC NE 1	Occurs within stream systems. Found in shallow water and pools and upland	Absent	Presumed Absent. Breeding habitat not present on the property. Dispersal into project area unlikely due to distance

				habitat immediately adjacent.		from suitable breeding habitats and constraints onsite and in the surrounding area
Western spadefoot	*Spea hammondii*	Fed: State: MSCP: County:	SS SSC None 2	Temporary ponds, vernal pools, and backwaters of slow flowing creeks. Also habitats such as grasslands and coastal sage scrub where burrows are constructed.	Present	Presumed Absent. Not expected to occur within the project area. No suitable soils to support vernal pool basins necessary for breeding occur within the project area.
Reptiles						
Two-striped garter snake	*Thamnophis hammondi*	Fed: State: MSCP: County:	SS SSC NE 1	Pools within riparian areas. Vernal and ephemeral pools.	Absent	Presumed Absent. Habitat not present in the project site - no suitable water sources present.
San Diego horned lizard	*Phrynosoma coronatum blainvillii*	Fed: State: MSCP: County:	SS SSC None 2	A variety of habitats including sage scrub, chaparral, coniferous and broadleaf woodlands (Stebbins 2003). Found on sandy or friable soils with open scrub. Requires open areas, bushes, and fine loose soil.	Present	Moderate. Suitable habitat exists in a portion of the project area. One occurrence documented in the CNDDB was recorded (1937) within 5 miles from the project area.
Coastal rosy boa	*Charina trivirgata roseofusca*	Fed: State: MSCP: County:	S None None 2	Open coastal sage scrub, chaparral and other habitats.	Absent	Moderate. Suitable habitat exists in a portion of the project area. One occurrence documented in the CNDDB was recorded (1937) within 5 miles from the project area.

San Diego ringneck snake	*Diadophis punctatus similis*	Fed: State: MSCP: County:	S None None 2	Downed logs, oak woodlands, other woodland types, chaparral.	Present	Moderate. Suitable habitat exists in a portion of the project area. One occurrence documented in the CNDDB was recorded (1937) within 5 miles from the project area.
Southwestern pond turtle	*Clemmys marmorata pallida*	Fed: State: MSCP: County:	None SSC NE 1	Inhabits deep pools in permanent or nearly permanent bodies of water below 6,000 ft (1829 m) with basking sites.	Absent	Presumed Absent. Habitat not present in the project site - no suitable water sources present.
Northern red-diamond rattlesnake	*Crotalus ruber ruber*	Fed: State: MSCP: County:	None SSC None 2	Open and rocky coastal sage scrub and other open habitat types.	Absent	Moderate. Suitable habitat exists in a portion of the project area. One occurrence documented in the CNDDB was recorded (1937) within 5 miles from the project area.
Belding's orange-throated whiptail	*Aspidoscelis hyperythra beldingi*	Fed: State: MSCP: County:	None SSC None 2	Sage scrub that covers about 50 percent of the ground without dense grasses in between. Also dense to extremely open stands of sage as well as chamise chaparral and floodplain areas.	Absent	Presumed absent. Habitat not present and may be too high in elevation for the species.
South coast garter snake	*Thamnophis sirtalis* ssp. *novum*	Fed: State: MSCP: County:	None SSC None 2	Mixed woodland, grassland, coniferous forest, dunes, brushland, generally in the vicinity of ponds or flowing water.	Absent	Presumed absent. Habitat not present in the project site – no suitable water sources present.
Coronado skink	*Eumeces skiltonianus*	Fed: State:	None SSC	Grassland, woodlands, pine	Absent	Presumed absent. Habitat not present in the project site.

	interparietalis	MSCP: County:	None 2	forests, chaparral, especially in open sunny areas such as clearings and the edges of creeks and rivers.		
Coast patch-nosed snake	*Salvadora hexalepis virgultea*	Fed: State: MSCP: County:	None SSC None 2	Larger streambed and riparian habitat areas, oak woodland.	Present	Moderate. Suitable habitat exists in a portion of the project area. One occurrence documented in the CNDDB was recorded (1937) within 5 miles from the project area.
Coastal western whiptail	*Aspidoscelis tigris stejnegeri*	Fed: State: MSCP: County:	None None None 2	Found in deserts and semiarid areas with sparse vegetation and open areas, also found in woodlands and riparian areas.	Present	Moderate. Suitable habitat exists throughout the project area. One occurrence documented in the CNDDB was recorded (2001) within 5 miles from project area.
Mammals						
Stephens' kangaroo rat	*Dipodomys stephensi*	Fed: State: MSCP: County:	END THR None 1	Grasslands, coastal sage scrub, open areas.	Absent	Presumed Absent. Suitable habitat is not present in the project site.
Pallid bat	*Antrozous pallidus*	Fed: State: MSCP: County:	SS, S SSC None 2	Usually found near open water. Arid regions with rocky outcroppings, to open, sparsely vegetated grasslands. Primarily a crevice roosting species. Common roost sites are rock crevices, old buildings, bridges, caves, mines, and hollow trees	Present	Low. Potential habitat occurs in the residential area of the site and in the oak woodlands.

Pocketed free-tailed bat	*Nyctinomops femorosaccus*	Fed: State: MSCP: County:	None SSC None 2	Rugged cliffs, rocky outcrops, and slopes in desert shrub and pine oak forests in arid lowlands.	Absent	Low. Usually this species is found in habitat types that differ from those found on the property.
Mountain lion	*Felis concolor*	Fed: State: MSCP: County:	None None None 2	Broad range of habitats, in all forest types as well as lowland and montane desert.	Present	Low. The site is not within a known corridor, but records of occurrence exists in the area of the project.
Ringtail	*Bassariscus astutus*	Fed: State: MSCP: County:	None None None 2	Variety of habitats as semi-arid oak forests, pinyon pine, or juniper woodland, and also inhabit montane conifer forests, chaparral, desert, dry tropical habitats and rocky or cliff areas.	Absent.	Presumed absent. Usually this species is found in habitat types that differ from those found on the property.
Southern mule deer	*Odocoileus hemionus*	Fed: State: MSCP: County:	None None None 2	Wide range crepuscular species, both residential and migratory in California found near temperate forest, desert and semidesert, open range, grassland, field and scrub habitats as well as Mountainous areas.	Present	Low. The mule deer could be found in habitats on the property, but the likelihood for occurrence is low due to human presence and the disturbed nature of the property.
Birds						
Least Bell's vireo	*Vireo bellii pusillus*	Fed: State: MSCP: County:	END END None 1	Summer resident of Southern California. Low Riparian habitats in vicinity of water or in dry river bottoms.	Absent	Presumed Absent. Habitat not present in the project site.

Southwestern willow flycatcher	*Empidonax traillii extimus*	Fed: State: MSCP: County:	END END NE 1	Occurs as summer resident in extensive thickets of low dense willows on the edges of wet meadows, ponds, backwaters, and creeks.	Absent	Presumed Absent. Habitat not present in the project site.
California gnatcatcher	*Polioptila californica*	Fed: State: MSCP: County:	THR SSC None 1	Occurs in coastal sage scrub below 2,500' from Ventura to Baja California.	Absent	Presumed Absent. Habitat not present in the project site.
Western yellow-billed cuckoo	*Coccyzus americanus occidentalis*	Fed: State: MSCP: County:	S END NE 1	Prefers lower, flood-bottoms of larger river-systems with willows, cottonwoods, and dense understory of nettle, wild grape, or blackberry.	Absent	Presumed Absent. Habitat not present in the project site.
Swainson's hawk	*Buteo swainsoni*	Fed: State: MSCP: County:	S THR None 1	Nests in stands with few trees in juniper-sage flats, riparian areas and in oak savanna. Forages in grassland, or cultivated field areas supporting rodent populations.	Present	Low. May occur as a winter visitor but not expected to breed on site.
Burrowing owl	*Athene cunicularia*	Fed: State: MSCP: County:	SS SSC NE 1	Open habitats of all types.	Present	Low; Potential habitat present but no burrow locations observed
Golden eagle	*Aquila chrysaetos*	Fed: State: MSCP: County:	S FP None 1	A wide variety of habitat types including woodlands, scrublands, and open fields. Breeds on cliff faces.	Present	Low; Would not breed on site, but could forage on the site

Northern harrier	*Circus cyaneus hudsonius*	Fed: State: MSCP: County:	SS SSC None 1	Open habitat areas, grasslands, marshes.	Present	Low; Would not breed on site, but could forage on the site
San Diego cactus wren	*Campylorhynchus brunneicapillus couesi*	Fed: State: MSCP: County:	S SSC NE 1	Coastal sage scrub, arid lowland and montane thorn-scrub, suburbs. Strongly associated with stands of cactus (*Opuntia* spp.)	Absent	Presumed Absent. Property lacks suitable habitat
White-tailed kite	*Elanus caeruleus*	Fed: State: MSCP: County:	None FP None 1	Nests in trees near marshes or other sources of water in grassland, cropland and woodland-hardwood habitats.	Present	Moderate. Habitat is present and the kite commonly utilizes disturbed habitat areas with an open quality
Gray-headed junco	*Junco hyemalis caniceps*	Fed: State: MSCP: County:	None SSC None 2	Nests in openings and edges of coniferous forests. Can be found in parks, roadsides and gardens in the winter.	Absent	Presumed absent. Habitat not present on the property
Merlin	*Falco columbarius*	Fed: State: MSCP: County:	None SSC None 2	Inhabits marshes, deserts, open woodlands, fields and coastal lakes and lagoons.	Present	Low. Could occur as a winter or fall visitor. No breeding habitat occurs on site.
Prairie falcon	*Falco mexicanus*	Fed: State: MSCP: County:	None SSC None 1	Nests in open, dry habitats on cliffs. Often found far away from permanent water sources.	Present	Low. Could occur as a winter or fall visitor. No breeding habitat occurs on site.
Horned lark	*Eremophila*	Fed:	None	Occurs in short-grass	Present	Low. Could occur on the

	alpestris actis	State: MSCP: County:	SSC None 2	prairie, open fallow grain fields, and alkali flats in coastal regions from Sonoma to San Diego and east to valley foothills.		property within any of the open fallow fields. Most likely as a winter visitor.
Loggerhead shrike	*Lanius ludovicianus*	Fed: State: MSCP: County:	None SSC None 1	Inhabits large, open areas conducive to hunting. Nests in dense brush and shrubs.	Present	Low. Could occur on site both as a breeding species and to use the site to forage.
Yellow warbler	*Dendroica petechia brewsteri*	Fed: State: MSCP: County:	None SSC None 2	Prefers to nest in willows, cottonwoods, aspens and other trees in riparian areas.	Absent	Presumed Absent. Habitat not present in the project site.
Yellow-breasted chat	*Icteria virens*	Fed: State: MSCP: County:	None SSC None 1	Nests in riparian thickets of willows and other brushy tangles along water courses.	Absent	Presumed Absent. Habitat not present in the project site.
Cooper's hawk	*Accipiter cooperi*	Fed: State: MSCP: County:	None SSC None 1	Woodland areas, including wooded areas within urban settings.	Present	Moderate; Could occur and breed within woodlands on site.
Sharp-shinned hawk	*Accipiter striatus*	Fed: State: MSCP: County:	None SSC None 1	Woodland areas, including wooded areas within urban settings.	Present	Moderate; Could occur within woodlands on site during the winter and migration
Rufous-crowned sparrow	*Aimophila ruficeps canescens*	Fed: State: MSCP: County:	None SSC None 1	Open and rocky coastal sage scrub and other open habitat types.	Absent	Presumed Absent; Habitat not present
Bell's sage sparrow	*Amphispiza belli belli*	Fed: State: MSCP:	None SSC None	Stands of chaparral and sage scrub.	Absent	Presumed Absent; Habitat not present

		County:	1			
Ferruginous hawk	*Buteo regalis*	Fed: State: MSCP: County:	None None None 1	Found in prairie, grassland, forest and desert habitats; nests along streams or on steep slopes.	Present.	Low. Could occur as a fall and winter visitor. No breeding habitat occurs on site.
Common barn-owl	*Tyto alba*	Fed: State: MSCP: County:	None None None 2	Marsh, grasslands, or mixed agricultural fields. For nesting and roosting, they prefer quiet cavities, either in trees or man-made structures such as barns or silos.	Present	Moderate. Could occur on the property as a forager and could nest within the oak woodland areas
Western bluebird	*Sialia mexicana*	Fed: State: MSCP: County:	None None None 2	Open woodland, both coniferous and deciduous, also in backyards, burned areas, and farmland, from sea level far up into the mountains.	Present	Moderate. This species occurs in association with oak woodlands and open habitat areas in the regional vicinity of the project
Great blue heron	*Ardea herodias*	Fed: State: MSCP: County:	None None None 2	Nest colonially in tall trees, cliff sides, and isolated marsh areas. Forage in marshes, lake margins, tide-flats, rivers and streams, and wet meadows. Fields.	Present	Low. Could occur as a winter visitor to the property. No breeding habitat occurs on the property.
Red-shouldered Hawk	*Buteo lineatus*	Fed: State: MSCP: County:	None None None 1	Riparian woodland, oak woodland, orchards, eucalyptus groves, or other areas with tall trees	Present	OBSERVED.
Turkey vulture	*Cathartes aura*	Fed: State:	None None	Foraging habitat includes most open	Present	OBSERVED.

		MSCP: County:	None 1	habitats with breeding occurring in crevices among boulders.		

Federal Designations:
(Federal Endangered Species Act, United State Fish and Wildlife Service [USFWS] Bureau of Land Management [BLM], United States Forest Service [FS])
END: Federally listed, endangered
THR: Federally listed, threatened
SS: BLM sensitive species
S: FS sensitive species

State Designations (Wildlife):
(California Endangered Species Act, California Department of Fish and Wildlife [CDFW])
END: State-listed, endangered
THR: State-listed, threatened
FP: State-fully protected
SSC: Species of Special Concern
Special Animal: Species at risk or Special Status Species

Western Bat Working Group (WBWG) Designations:
High Priority: Indicates species are imperiled or are at high risk of imperilment based on available information on distribution, status, ecology, and known threats.
Medium Priority: Indicates a level of concern that should warrant closer evaluation, more research, and conservation actions of both species and possible threats.

* Species was observed in the immediate vicinity of the project area during the surveys.
** Species has been previously documented in close proximity of the project area (CDFG 2012a), and sign of the species was observed in the vicinity during the survey.

All sensitive species found within the database searches were assessed for their potential to occur on site based on the following criteria guidelines:
Present: Species was observed in the BSA during a site visit or focused survey.
High: Habitat (including soils and elevation factors) for the species occurs in the BSA and a known occurrence has been recorded within 5 mi (8 km) of the site.
Moderate: Habitat (including soils and elevation factors) for the species occurs in the BSA and a known occurrence occurs within the database search, but not within 5 mi (8 km) of the site; or a known occurrence occurs within 5 mi (8 km) of the site and marginal or limited amounts of habitat occurs in the BSA.
Low: Limited habitat for the species occurs in the BSA and a known occurrence occurs within the database search, but not within 5 mi (8 km) of the site; or suitable habitat strongly associated with the species occurs on site, but no records were found within the database search.
Presumed Absent: Species was not observed during focused surveys conducted in accordance with protocol guidelines at an appropriate time for identification; or habitat (including soils and elevation factors) does not exist on site, or the known geographic range of the species does not include the survey area.

Note: Location information on some sensitive species may be of questionable accuracy or unavailable; therefore, for survey purposes, environmental factors associated with species occurrence requirements may be considered sufficient reason to give a species a positive potential for occurrence.

Source: California Natural Diversity Database (CNDDB 2013).